

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 15 March 2017: 2:00 pm - 4:00 pm

1.	Welcome and Apologies
2.	Minutes and actions of the previous meeting
3.	Presentation: Emma Coombs and Mitch Bennett (EPA) - Adverse Weather Investigation Project Update
4.	Upper Hunter Air Quality Monitoring Network Update
5.	Clean Air for NSW Update
6.	Air Quality Education Fact Sheets
7.	UHMD 2017 Structure
8.	Community Perceptions Survey - Key Findings
9.	School Bus Tours
10.	2016 Annual UHMD Forum debrief
11.	Update on communications initiatives
12.	Update on current projects
13.	Other business

**Joint Working Group - Emissions and Health
15 March 2017**

Agenda Item 3

PRESENTATION: ADVERSE WEATHER INVESTIGATION PROJECT UPDATE

Introduction:

At the previous JWG - Emissions and Health meeting in November 2016, the working group heard from Dr Yvonne Scorgie at the Office of Environment and Heritage and Emma Coombs from the Environment Protection Authority on community weather forecasting alerts and if the forecasting techniques and technology used in greater metropolitan Sydney could be transferred to the Upper Hunter region to provide community members with greater advance warning of adverse weather. One of the key items of interest was the the Adverse Weather Forecasting Project. Ms Coombs and Mr Bennett will provide an update on the progress of the project.

Presenters:

Emma Coombs

Regional Operations Officer - Hunter, North Branch,
NSW Environment Protection Authority

Emma Coombs holds a Bachelor of Science degree from the University of Newcastle. After completing her degree, Emma worked for 5 years as an ecologist with a leading environmental and bushfire consultancy in NSW. Emma commenced work with the New South Wales Environment Protection Authority in 2008, undertaking reviews of Environmental Assessments and regulating licensed industries. Emma has been an integral part of the EPA's dust stop program which aims to ensure the application of best practice to particulate matter control in New South Wales coal mines.

This program has reduced dust emissions from NSW coal mines by 20,000 tonnes per year. Emma's current priorities include the continued implementation of the EPA's Dust Stop program, and the development of a tool to identify the weather conditions that give rise to high dust risk in the Hunter Valley.

Mitch Bennett

Head - Regional Operations Unit, Hunter Region
NSW Environmental Protection Authority

Since 2010, Mitch has been the Head of the NSW Environment Protection Authority's Hunter Region Strategic Projects Unit. In this role he has been instrumental in establishing the Upper Hunter Air Quality Monitoring Network, an industry-funded network of monitors that delivers real-time air quality data to the community via the web. Mitch currently leads a team that is implementing the "Dust Stop" program, which aims to ensure the application of best practice to particulate matter control in New South Wales coal mines.

FOR INFORMATION

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Agenda Item 4

UPPER HUNTER AIR QUALITY MONITORING NETWORK UPDATE

Issue

The Upper Hunter Air Quality Network recently met. The JWG - Emissions and Health should be informed of the key outcomes from this meeting.

Background

Key outcomes from the recent Upper Hunter Air Quality Monitoring Network meeting include:

- OEH are commencing a review of the monitoring network (monitors and management) in accordance with the regulations that require a 5-year review period. OEH will seek to recover these costs from industry via the Levy, which will likely increase this year.
- With regards to the Upper Hunter Air Quality forecasting tool, OEH presented an overview of the work they have done to develop a tool specifically to predict days when the Singleton monitor is likely to exceed 24 hr PM criterion. This has been back-calibrated against previous exceedances and had a peer statistical review. EPA plan to trial this forecasting tool in the background this Spring and tweak as required.
- Roger Bluett (Acting EPA Air Policy Manager) presented the “Clean Air for NSW” consultation paper and sought feedback from the committee. 120 submissions have been received on the draft, which are expected to be made public shortly. A Clean Air Summit is planned for mid-2017.

FOR INFORMATION

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Agenda Item 4

CLEAN AIR FOR NSW UPDATE

Issue

NSWMC has provided a submission on the NSW Government's Clean Air for NSW consultation paper.

Background

The Clean Air for NSW Consultation Paper outlines a series of potential actions to improve air quality in NSW over the next 10 years. NSWMC provided a submission on the Consultation Paper taking into consideration feedback from industry and also briefed the office of the then Minister for the Environment, Mark Speakman.

NSWMC's submission on the Consultation Paper included the following key comments:

- The focus on the 'Greater Metropolitan Region' limits the analysis of air quality issues in regional towns outside this largely arbitrary boundary. There are many significant towns outside this area, some of which have potentially greater population exposure to air pollution than regional towns within the Greater Metropolitan Region, that have not been assessed. Given this is a plan for the entire NSW population, it is important that it captures these regions.
- Greater context is required around the presentation of air emission inventory data. Emissions estimation techniques used to compile the inventory have several limitations, including inherent uncertainties in some estimation techniques and the fact that the dispersion of emissions can minimise population exposure particularly where emission sources are located away from population centres. Population exposure data, rather than emissions estimation data, should be the primary source of information that guides air quality actions.
- The Consultation Paper does not assess how each priority action will address the air quality issues outlined in Section 2 of the Consultation Paper, or how it meets the objectives to "Target emissions sources that have large impacts on air quality and human health" and "have the potential to provide the most cost-effective responses..." In the case of the mining-related actions identified, the priority actions appear to be a list of initiatives already underway rather than using the plan as an opportunity to strategically review whether these are priority actions. The proposed Clean Air Metric that the Office of Environment and Heritage is developing could help inform priorities.

The Government still proposes to hold a NSW Clean Air Summit in mid 2017. They have indicated they would then finalise the plan later in 2017. It is unclear if this schedule will be maintained.

NSWMC has prepared briefing papers on the Clean Air for NSW Consultation Paper for the new Minister for the Environment, the Hon. Gabrielle Upton and will follow up this issue with her office in due course.

The NSWMC submission can be viewed here: http://www.nswmining.com.au/NSWMining/media/NSW-Mining/Attachments/170120_Clean-Air-for-NSW-Consultation-Paper-NSWMC-Submission-Final.pdf

FOR DISCUSSION

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AIR QUALITY EDUCATION FACT SHEETS

Issue

The Upper Hunter Mining Dialogue has previously discussed the development of Air Quality Education Fact Sheets for the Upper Hunter. There is an opportunity for the Dialogue to guide the development of this resource to better educate the local community on air quality facts in the Upper Hunter.

Background

Members have raised concerns that a degree of misinformation regarding air quality is currently being spread within certain areas of the community, particularly in schools. An opportunity was identified to produce an Upper-Hunter specific air quality fact sheet that would better help inform community members about what the air quality conditions are the steps that mines in the region do to mitigate any impacts to air quality.

The NSW Minerals Council has previously produced an Air Quality Fact Sheet, which is **attached** for reference. The most recent fact sheet was produced in 2015 and could be used as a basis for developing the Upper Hunter sheet, incorporating more relevant local data and Dialogue information.

Recommendation

That the Joint Working Group provide advice on an air quality education fact sheet for the Upper Hunter and what this might consist of.

FOR DISCUSSION

NSW mining takes the issue of air quality very seriously. The health of our mining employees is our biggest priority. In NSW the majority of our mining employees also live in the communities near where mining takes place – so community concerns are our concerns.

It's important to understand the facts about air quality issues in mining regions and what is being done to ensure acceptable air quality across our mining communities.

The Facts on Air Quality



Australia has some of the strictest air quality standards in the world – The Australian national air quality standards for particulates are among the strictest in the world and are likely to be strengthened following a review of the national air quality standards that is underway. As a result, Australia's air quality is excellent by international standards.



Air quality in the Lower Hunter is good – A report prepared by the Office of Environment and Heritage in 2012 concluded that "Overall air quality in the Lower Hunter is as good – or better than – air quality in Sydney and the Illawarra." In its 2014 review of the Port Waratah Coal Services T4 project the Planning Assessment Commission stated "Some speakers at the public hearing suggested Newcastle's air quality is relatively poor. The air quality monitoring data does not support this view."



The Lower Hunter has met national air quality standards 9 of the last 10 years – In the Lower Hunter, national air quality standards for PM10 – particles 10 microns and less in size – have been met for 9 of the last 10 years. 2009 was the only year when they were exceeded, when dust storms affected air quality throughout the State (Source: OEH data).



Coal train dust is not a significant source of air pollution – The independent Planning Assessment Commission, in its 2014 review of the Port Waratah Coal Services T4 project, concluded "There is little or no evidence that uncovered wagons contribute significantly to particulate air quality in the Newcastle area and there is no justification for recommending that wagons be covered."



Woodheaters are the largest source of fine particulate pollution in the Upper Hunter – The Upper Hunter Valley Particle Characterisation Study conducted by CSIRO showed that dust from sources such as mining and agriculture contributed an average of 11-12% of PM2.5 – the fine particulates less than 2.5 microns which are of greatest health concern. Wood smoke contributed 30% of PM2.5 in Muswellbrook.



There are many contributors to coarse particulate pollution in the Upper Hunter – While woodheaters are the largest source of fine particle pollution (PM2.5), there are also many contributors to coarse particle pollution, or PM10. Singleton is the only large population centre in the Upper Hunter that has exceeded national air quality standards for PM10 since the first full year of air quality monitoring began in 2011, exceeding standards in 2012 and 2013. In its review of the 2013 data, the Office of Environment and Heritage stated "Smoke from bushfires contributed to high pollution on a number of days during January, October and November", indicating that sources unrelated to mining contribute to air quality standards being exceeded.

Actions to Improve Air Quality

1. Improvements to coal train dust management – Following the initiation of industry-led research into coal train dust management in 2014, the coal industry has committed to implement a series of operational improvements to coal train dust management throughout the Hunter Valley Coal Chain. The improvements include reviewing and strengthening coal train dust management plans, avoiding overfilling and spillage of coal during loading, developing procedures to clean up coal deposited on the outside of wagons, and reviewing wagon door maintenance procedures.

These are measures that have been identified through research and public feedback as reducing potential dust emissions from coal trains. Further information can be found at: <http://www.nswmining.com.au/environment/rail-corridor-air-quality>

2. Reductions in dust emissions from mines – Following the NSW EPA's introduction of legally binding Pollution Reduction Programs on coal mines throughout the State in 2013, all coal mines are now controlling at least 80% of dust emissions from dirt haul roads, with some achieving more than 90% control. Dirt haul roads are the largest potential source of dust emissions from mining operations.

All coal mines have also implemented systems to better manage their operations during adverse weather conditions, such as when it is dry and windy, and research has been conducted into reducing dust emissions when moving soil and rock waste, known as overburden.

3. Ongoing air quality monitoring through the Upper Hunter Air Quality Monitoring Network (UHAQMN) – The UHAQMN is funded by the coal and power generation industries and is run independently by the Office of Environment and Heritage. The network includes fourteen air quality monitoring stations that provide publicly available, real-time information about air quality across the region, helping to inform air quality management strategies. Monitoring results are available on the air quality page at www.environment.nsw.gov.au/.

4. New air quality research in the Lower Hunter – The EPA has commissioned two further particle studies in the Newcastle region, which will help identify the major sources of particulates in the region. The work will build on studies in Newcastle previously undertaken by ANSTO that have shown automobiles (27%), secondary sources (23%), smoke (20%) and sea salt spray (16%) are the major sources of PM2.5. Industry and soil together make up 14%, of which coal dust is a proportion along with industrial facilities and agriculture.

5. Ongoing community engagement through the Upper Hunter Mining Dialogue (UHMD) – The NSW Minerals Council started the UHMD in 2010 to engage with the community to address the cumulative impacts of mining in the region. Emissions & Health is a priority area for the UHMD and a working group comprising industry, community, government, and interest group representatives has been formed to help develop and implement projects in this area. Projects to date include:

- A weather forecasting tool to allow operations to anticipate adverse weather conditions and take steps to prepare their operations to minimise dust;
- A communications strategy to ensure regular information sharing between government, industry and the community about air quality, health issues, which has included 5 public information sessions.

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UHMD 2017 STRUCTURE

Issue

The structure of the UHMD for 2017 was discussed at the end of year Joint Advisory Steering Committee (JASC) and Industry Steering Committee (ISC) meetings in November 2016, with a recommendation that a proposal be put to the Executive Oversight Committee (EOC) for decision at their December 2016 meeting.

Background

A number of concerns had been raised regarding the structure of the UHMD and whether there was a need to reduce either the number of working groups or the frequency of meetings or both, to address a noticeable decline in attendance from participants.

The JASC and EOC were both briefed on the decline in attendance, with EOC deciding it would be best to review the results of the UHMD Community Perceptions Survey before making any final decisions regarding altering the frequency or number of working groups, and to delay implementing any changes until the start of 2017.

The Secretariat proposed that the JASC consider and provide advice on changes to the structure of UHMD Working Groups following significant discussion and feedback and recognition that certain groups had substantial overlap in terms of membership and content. The proposal included:

- Merging the JWG - Water and JWG - Land Management into a single JWG titled 'Land and Water Management' to meet three times a year.
- Continue the JWG - Emissions & Health, but reduce the number of meetings to two times a year.

The JASC decided the Land Management and the Water Joint Working Groups still had enough theme-specific content to justify their status as separate entities, but supported progressing with the following arrangement to minimise the unnecessary duplication of content and increase efficiencies within the Dialogue:

- JWG for Land Management and Water to trial a meeting format (for one year) that incorporates water-specific and land management- specific content, with a joint meeting covering common subject matter in the middle.
- JASC to evaluate the success of the combined JWG meeting trial at the end of 2017.
- Strengthen the role of the JASC in monitoring the progress of communication and awareness related projects like the community resurvey and school mine visits program.
- Maintain the Emissions and Health JWG as a stand-alone entity.

The EOC supported the above JASC recommendations. In addition, the EOC proposed that a paper be submitted to EXCO recommending the disbandment of the EOC in 2017, given that the JASC has now been established as the body with oversight of UHMD projects and therefore the need for an EOC is redundant. Under the recommendation, high-level decisions regarding spending, governance and structural issues would need to be approved through the NSWMC Executive Committee.

Recommendation:

The Working Group note the EOC recommendations.

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COMMUNITY PERCEPTIONS SURVEY

Issue

The JASC has received a full update on the findings of the Community Perception Survey undertaken towards the end of 2016 by the Hunter Research Foundation. This paper provides a summary of the report provided by researcher Ruth MacLeod.

Background

Following discussion at both the Industry Steering Committee in April 2016 and the Joint Advisory Steering Committee in June 2016, approval was provided by the Executive Oversight Committee for the UHMD secretariat to engage the services of the Hunter Research Foundation (HRF) to conduct an interview based qualitative survey of current and past participants in the UHMD.

The methodology used for the 2016 perception survey involved 40 interviews of approximately 20-30 minutes duration. The interviews contained some quantitative questions to enable comparison of responses. The interviewees were drawn from community (25), industry (5) and other stakeholders (10) (including state and local government). Interviews began in early September and were completed by mid October, with final results of the survey presented at the 2016 UHMD Annual Forum following presentations to the JASC and the ISC.

The final report was delivered in early December 2016 and Ruth McLeod presented key findings at the 2016 Annual UHMD Forum, with a significant amount of interest and questions from attendees. The full report is attached with the papers for reference.

Following a request from the JASC, Mrs McLeod presented the findings of the report in more detail at the recent JASC meeting on 2 March 2017, and gave further insight into the key considerations for the Dialogue moving forward, split evenly between the perceptions of the Upper Hunter coal industry overall, and perceptions of the Upper Hunter Mining Dialogue.

1. PERCEPTION OF UPPER HUNTER COAL INDUSTRY

- Equal level of agreement and disagreement with the statement “The coal mines in the Upper Hunter treat everyone with respect and fairness”; mindful of coal mines being seen as a single entity.
- Responses regarding changes in the industry over the past five years indicated a widening gap in the community between those who are supportive of the mining industry and those that support a reduction in mining.
- Consider current concerns nominated about coal mining in the Upper Hunter. Most frequently nominated concerns were:
 - social impacts within the community resulting from changes in the industry and/or responses made by mining companies to the change; impacts included job losses, reduced job security, poor mental health, changes in socio-economic status and declining sense of community
 - future expansion of mining operations and the associated planning and approval processes
 - environmental impacts and the need to address the cumulative impact of these challenges; impacts included water quality and usage, dust and air quality, loss of agricultural land, rehabilitation and voids.
- Concerns related to the social impacts as a result of changes within the mining industry, and future expansion of the industry and associated planning processes were raised more often in the current (2016) research program than in the 2010 survey results.
- Changes required within the Upper Hunter coal industry that were identified by participants:
 - increased rehabilitation works and to address future voids
 - planning for a reduced-mining or post-mining future

- improvements in the planning system for mining licences and expansions
- more honest and realistic conversations between industry and the community including discussion of cumulative impacts of mining operations.
- Findings suggest industry could benefit from reviewing community expectations related to obtaining / maintaining a social licence to operate.

2. PERCEPTION OF THE UPPER HUNTER MINING DIALOGUE

- Seek to engage and support participants; be mindful of:
 - reasons for less involvement partly due to perceptions that the community and environmental concerns being raised were not being heard; and changes in the focus of Joint Working Groups with a broader range of attendees; and
 - potential for negative impacts on community stakeholders who volunteer to be part of the UHMD, including impacts on time and how their involvement may be perceived by other community members. While mentioned by only a small number of participants, it is important to acknowledge that there are some challenges to being involved.
- Raise awareness and market the positives of the UHMD identified, which include:
 - platform for shared conversations which include the mining industry and a broad range of local organisations, and government entities; and
 - industry stakeholders working together towards shared standards and larger area-wide projects.
- Address concerns including:
 - strength of influence of NSW Minerals Council;
 - no longer seen to be achieving practical outcomes; and
 - not achieving broad community engagement.
- Future initiatives suggested by participants included:
 - raise awareness of UHMD and communicate achievements;
 - reconfirm community issues and priorities by engaging key local networks and utilising representative community survey;
 - re-engage local mining companies;
 - review the focus areas for the Joint Working Groups and ensure resourcing to achieve identified goals;
 - advocate for improved regulations and planning processes;
 - identify and/or implement further projects addressing rehabilitation, land management and voids;
 - work with local industries to strengthen the economic diversity of the Upper Hunter; and
 - contribute to strategic planning for the Upper Hunter with a long term focus on a reduced mining or post-mining future for the area.

Recommendation

That the Working Group note the update and consider any actions the UHMD should focus on to enhance the Dialogue's effectiveness and engagement within the Upper Hunter community.

FOR INFORMATION / DISCUSSION

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SCHOOL BUS TOUR PROJECT UPDATE

Issue

Following a pilot program in 2016, the Dialogue is progressing with the School Bus Mine Tours project in 2017, seeking input from community partners to ensure the project is a successful and viable Dialogue initiative.

Background

The School Bus Tours are an Upper Hunter Mining Dialogue Initiative that aim to enhance transparency of mining activities in the district, address general knowledge with respect to mining in the community; and to demonstrate the reality of everyday mining activities and environmental management systems in a balanced way.

The tours have received in-principle agreement from UHMD companies to facilitate tours for all Upper Hunter Y6 and Y10 Students each year, which equates to approximately 2 tours per site per annum, taking into account the capabilities and resources available at each site.

A pilot program was undertaken in late 2016 to help plan for a full tour program. The activities were designed to better inform the program by understanding the interests and knowledge levels of primary and secondary students and to address any logistical planning issues at an early stage. The two key pilot program activities included:

- A pilot tour of 63 years 5 & 6 students visited Mangoola on 24 November 2016, who were required to complete a unit on the coal industry as part of their Science studies.
- A group of eight years 9 & 10 students attended the UHMD Forum on 6 December 2016 where students participated in a separate workshops and wider group discussions.

Key findings from the initial tour and workshop include:

- Regarding the impacts, primary students had little knowledge mostly about power and energy, whereas the secondary students could make broader statements about mining and why it is done.
- Regarding their knowledge of coal, both levels has little knowledge, with primary students more likely to know about power generation, whereas secondary students had more of an idea about steelmaking.
- The beliefs of students regarding environmental impacts of mining was not overly negative at both levels. Primary students were mostly amazed at the scale of mining activities and the equipment used, while secondary students had more of an interest in rehabilitation.
- Primary students were primarily interested in the big equipment, blasting process, rehabilitation and mining careers.
- Secondary students are interested in the virtual reality package, the whole mining process, the concept and scale of underground equipment and careers.
- The ideal group size would be between 20 and 25 to ensure that the tour guide can engage with whole group. Further, future tours should seek to avoid normal blasting times and be postponed in wet or very hot weather.

A project working group is being formed consisting of mine site representatives across various disciplines, research and teaching professionals, and members of the local community, to help provide input into the key messages, preparation and development of tour resources, and provide training sessions. Once the project team is in place, it is planned to progress development of content and material by the second and third quarters of 2017. Additional pilot tours are anticipated to be conducted in the second quarter of 2017, with a view to commencing initial regular tours at the final quarter of 2017.

Rae O'Brien has been working with the UHMD secretariat and industry partners to develop a suite of educational materials which will suit the school's curriculum, incorporating a standardised presentation

that can be delivered across the various Upper Hunter sites, but flexible enough to be adapted to each sites specific conditions. Careful consideration will be given to ensuring a the educational material is balanced so that it provides an explanation of both the impacts and benefits of mining, and demonstrates the importance of the Dialogue working with community and mining to address and lessen impacts wherever possible.

It is hoped that each mine tour would have three components:

1. Pre-Tour classroom tutorial to provide context for the tour - A teacher will deliver either the virtual reality package from UNSW, a video using local content, or a presentation with notes that covers an introduction to what mining is, the impacts it has, the creation of energy and the operating conditions for mining to take place.
2. Tour Route & Key Highlights of Tours - The tours will cover the whole mining process allowing students to see large equipment up close, incorporating a look out stop that oversees the whole process, a demonstration of rehabilitation from start to finish. The key message from this component would be to outline what it takes to mine responsibly and safely. This component would incorporate a worksheet for students to complete along the way.
3. Post Tour classroom exercise to reinforce learnings - This may potentially be a high school activity where teachers can deliver materials that reinforce the learnings from the bus tour covering the complete mining process from start to finish and including approval conditions and other environmental requirements. This is also an opportunity for guest speakers from the various professional backgrounds across industry to share what they do and their role in the mining process.

Recommendation

That the Joint Working Group note the update and suggest appropriate members across industry, research institutions and the community to nominate for the project working group.

FOR INFORMATION

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Agenda Item 10

REVIEW OF THE 2016 ANNUAL UHMD FORUM

Issue

The UHMD Annual Forum was held at the Muswellbrook Race Club on Tuesday 6 December 2016, with approximately 85 attendees across industry, local government, research institutions, government departments and local community groups.

Background

Feedback received following the 2015 Forum suggested that the 2016 Forum not to attempt to cover everything, but instead to focus on several key issues in greater detail. As such, the 2016 Forum centred on the themes of rehabilitation, post-mining use of voids and feedback from a recent survey of community perceptions undertaken by the Hunter Research Foundation. The program is attached.

Key points of note include:

- An overview of the 2016 achievements for the Dialogue was provided, which included establishing the Joint Advisory Steering Committee, engaging with school students and the implementation of the Dialogue communications plan.
- An overview of the JASC's future priorities for the year ahead was provided, which included further advocacy for a synoptic plan and multi-stakeholder voids committee, further development of educative school bus tours, reviewing the community perceptions resurvey work, advancing a proposed water quality study, continuing the grazing trials and delivering a weather forecasting video project.
- Professor Richard Bush from the International Centre for Balanced Land Use at The University of Newcastle provided a keynote address on how collaborative research can help the regional communities within the Dialogue.
- A panel session, chaired by 2NM Stephen Cenatiempo discussed beneficial use of voids post mining. Panelists identified the need for economic diversity within the Upper Hunter, the need for a refresh to the synoptic plan and further research to identify future voids and what benefits could be derived from them, as well as tourism opportunities within the region and how the mining industry could be integrated. There was strong support among participants for a refresh of the Synoptic Plan.
- Stephen Barry from DPE presented an update on DPE's work on developing Guidelines on Environmental and Social Impacts. Stephen has agreed to host a community workshop looking at a final land use strategy (Synoptic Plan) update.
- Students and teachers from St Joseph's and Muswellbrook High School engaged in a workshop to assist with the development of educative resources to further enhance the school bus education tours that industry has been piloting. Feedback from teachers and students was very positive.
- Dr David Blackmore from the Division of Resources and Energy provided an update on the government's rehabilitation and regulatory framework.
- Ruth McLeod from the Hunter Research Foundation presented on the community perceptions survey work undertaken this year and provided community insights into what was working well within the Dialogue and suggested improvements to consider as the Dialogue evolves.
- The JWG Chairs provided an update on the key projects that have progressed in 2016, including the Weather Forecasting Projects, Water Accounting Framework and Grazing Trials.
- The small group discussion amongst attendees to identify future plans for the UHMD appeared to be enthusiastically embraced.

Feedback from Attendees

Anecdotal feedback from a cross section of attendees was generally very positive. A survey was distributed to all participants and the results have been included in an attachment. There were a total of 27 respondents from the approximately 85 attendees giving the survey a 32% response rate. Respondents were asked to rate aspects of the Forum on a scale of 1 to 5 (with 1 being unsatisfactory, and 5 indicating excellent). A paper with the full results is included for reference.

Key outcomes from the participant survey were:

- The Forum scored an average rating of 4.04 which is strongly positive.
- Respondents were asked to rate the Forum compared to previous years. 23% thought it was better than previous years and 38% thought it was on par with the previous year. Only 8% of attendees thought it was not as good as the previous year and 31% attended for the first time.
- Those indicating it was better than last years advised this year had a better program and provided opportunities for networking. There was criticism that there was not enough time for attendee questions or contributions, and that high-level personnel in attendance served as an audience instead of engaging them in debate and discussions.
- Speakers were generally well regarded across the board, as was the facilitation of the day.
- Respondents provided some suggestions to consider for the Forum in 2017:
 - Provide more of an overview of the economic climate
 - Less presentations and more workshops
 - More audience questions to discussion panel
 - More discussion time
 - More project updates provided by paper rather than longer talks
 - Perhaps questions could be sent via text throughout the panel discussion
- Networking opportunities were rated as 4.36. To better facilitate networking opportunities respondents provided the following suggestions:
 - An attendance list with areas of expertise and interest to enable attendees to know who will be there on the day.
 - An interactive activity at the start of the day to ignite discussion
 - The involvement of students was great, but it would be good to hear from them and interact.
- Suggested topics for future forums include:
 - Sustainability
 - Final voids, Land uses and Synoptic Plan
 - Rehabilitation
 - What mining is doing for our communities, economic benefits
 - Fatigue management
- Suggested future speakers:
 - Regulators
 - Government/local government
 - Independent researchers
 - Minerals Council of Australia
 - Mine Managers
 - Economic analyst
 - Local anti-mining group

A number of suggestions from the afternoon strategy workshop sessions may be considered for adoption by the Dialogue, as they relate to potential projects. These include:

- Invest in and develop a virtual reality package with local content, mining-related apps (kids, weather, live mine status updates) that can deliver information to school students in an accessible way.
- Mine experts with various professional backgrounds (engineers, geologists, machine operators) to deliver school presentations.
- A research study into the mental and social impacts of shift work.
- Tourism project that delivers a combined industry interactive display and site tours.
- Skills and employment project that identifies the various skills across Upper Hunter industry workers and how these might be applied to the community for future industries post-mining.
- Survey of mine workers to better understand their sentiment
- More cropping trials on mine rehab sites
- Economic diversification project - improving social aspects of towns.
- Buffer zone project

FOR INFORMATION / DISCUSSION

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UPDATE ON COMMUNICATIONS ACTIVITIES

The Upper Hunter Mining Dialogue communications activities continue to focus on key strategies and tactics consistent with the Communications Plan. A number of successful projects and initiatives began in 2016 and it is expected that 2017 will be similarly productive with a range of positive opportunities being delivered.

Key 2017 activities:

- Media plans:
 - The Dialogue arranged for ABC TV Landline journalist Ginny Stein to do a story on the Grazing Trial Project, to be broadcast shortly.
 - Progressing an article to be published in The Land newspaper.
 - A tour of activities across the Upper Hunter with a Newcastle Herald journalist took place at the end of 2016, which is likely to generate several more articles.
 - Articles and photos have also been regularly provided for the industry newspaper @thecoalface.
- Rehabilitation case studies: As part of the wider rehabilitation strategy, some of the rehabilitation case studies we will be putting together involve Upper Hunter mines, which we will also feature on the Dialogue page.
- School bus tours: see agenda item 11

Recent media:

- Water Accounting Framework - On 5 Dec 2016, NBN news ran a short story on the launch of the 2014 and 2015 Water Accounting Framework results. A link to the story is available to watch here: <http://www.nbnnews.com.au/2016/12/05/mine-report-shows-less-hunter-river-water-usage/>
- Upper Hunter Mining Dialogue - On 6 January 2017, the Newcastle Herald published an Ian Kirkwood piece on the changing direction of the Dialogue. It can be viewed here: <http://www.theherald.com.au/story/4384586/cooperating-on-coal-costs/>

2017 events:

The UMHD was present at the Cessnock Show on Friday 24th and Saturday 25th of February. Overall, attendance at the show was poor, and there was not much of an agricultural or market stall component.

The Dialogue will continue to be promoted through industry and community events. The proposed annual calendar of events includes:

Show / Event	Dates	Website
Muswellbrook (Upper Hunter) Show	Fri 31st March to Sat 1st April 2017	Link
Tom Farrell Institute Rehab Conference	Wed 29th, Thurs 30th & Fri 31st March 2017	Link
Tocal Field Days	Fri 5th, Sat 6th and Sun 7th May 2017	Link
NSWMC HSEC Conference	Mon 14th to Wed 16th August 2017	Link
Broke Village Fair 2017	Sun 10th September 2017	Link
Singleton Show 2017	Fri 22nd to Sat 23rd September 2017	Link

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Agenda Item 12

UPDATE ON CURRENT PROJECTS

Weather Forecasting Project

Filming of this video is due to occur in March 2017 at a member site.

Community Air Quality Forecast Alert

Please see Agenda item 3 - Presentation from Emma Coombs and Mitch Bennett (EPA)

Update of Mine Dust and You Fact Sheet

NSWMC has engaged Pacific Environment to update the '*Mine Dust and You*' fact sheet and are currently reviewing draft version of the update. NSWMC will continue to work with its Air Quality Working Group to review and provide suggestions for the update of the fact sheet to the NSW Government. Pacific Environment has provided a revised edition of the fact sheet to NSWMC and is liaising with NSW Health to progress the project further. The JWG - Emissions and Health will be consulted for feedback once notified.

**Joint Working Group - Emissions and Health
15 March 2017**

Agenda Item 13

OTHER BUSINESS

Non-road diesel pollution reduction study (PRS)

The NSW Environment Protection Agency (EPA) has developed a consultation draft Pollution Reduction Study (PRS): Best practice measures for diesel exhaust emissions at coal mines. The intention of the PRS is to determine what opportunities exist to reduce diesel exhaust emissions.

The EPA, as part of the Diesel and Marine Emissions Management Strategy, completed a project benchmarking the existing emissions performance of diesel powered mobile equipment used at EPA-licensed coal mines against international best practice measures. The resulting report recommended that all coal mines be issued with a Pollution Reduction Program (PRP) to identify the most practicable options for improving exhaust emission performance standards for non-road mobile diesel equipment used in surface operations.

FOR INFORMATION