

AGENDA

Upper Hunter Mining Dialogue Joint Environment Working Group

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

Wednesday 11 September 2019, 9:00 am to 12:00 pm

Teleconference Details:
Dial-in Info: +61 2 8319 9443
Organiser Code: 642-400-63 / Participant Code: 169-571-95

Agenda items		Attachments
1.	Welcome and Apologies (5 mins)	
2.	Minutes and actions of the previous meeting (5 mins)	
3.	Presentation: Update on Recent Cultural Burns Programs (30 mins) Laurie Perry (Wonnarua Nation Aboriginal Corporation) with Toby Whaleboat and Jess Wegener (Hunter Local Land Services)	
4.	Update on Emissions & Health Projects (20 mins)	Yes
5.	Update on Land Management Projects (20 mins)	
6.	Update on Water Projects (20 mins)	Yes
7.	2019 Annual Forum Planning (40 mins)	Yes
8.	Update on Communications Activities (10 mins)	
9.	Update on other Dialogue Working Groups/Committees (10 mins)	
10.	Other Business (5 mins)	
11.	Next Meeting & Close (5 mins)	

**Upper Hunter Mining Dialogue
Joint Environment Working Group - 11 September 2019**

Agenda Item 2

DRAFT MINUTES

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

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

Wednesday 12 June 2019: 9.00 am to 12.00 pm

Attending:

Julie Thomas (Chair)	Muswellbrook Coal Company
Andrew Reid	MACH Energy Australia
Bill Baxter	Yancoal
Carolyn Herlihy	Hunter New England Health
Chloe Christensen	BHP
Craig White	Bengalla Mining Company
Glenda Briggs	NSW Department of Primary Industries
Jim Morgan	Wybong Action Group / NSW Farmers' Association
Jonathon Deacon	BHP
Ken Bray	Hunter Valley Water Users Association
Laurie Perry	Wonnarua Nation Aboriginal Corporation
Maryann Crawford	Singleton Council
Monique Meyer - via teleconference	Resources Regulator
Neville Hodgkinson	Singleton Shire Healthy Environment Group
Paul Amidy	Glencore
Robert Gothard	AGL Macquarie
Sharon Pope	Muswellbrook Shire Council
Bob Mackie	theresource
James Barben	NSW Minerals Council
Craig Milton	NSW Minerals Council

Observers:

Jeff Esdaile	Community member
--------------	------------------

Apology:

Cameron Archer	Tom Farrell Institute
Chris Quinn	The Bloomfield Group
Chris Knight	The Bloomfield Group
Ian Napier	Hunter Valley Wine Industry Association
John Watson	Glencore
Neil Griffiths	Department of Primary Industries
Jan Davis	Hunter Environment Lobby
Jo Powells	NSW Department of Primary Industries
Karen Marler	NSW Environment Protection Authority
Ngaire Baker	Mount Pleasant Operation
Tony Cox	NSW Department of Industry
Tim Roberts	Tom Farrell Institute
Daniel Lewer	Hunter Land Management
Natalie Hewitt	Community member

1. Welcome and apologies

The Chair welcomed all, noting the great attendance today from Working Group members.

2. Minutes from Previous Meeting

The minutes from the previous meeting were accepted. Mr. Barben noted the challenges in getting DPI Water to attend to present an update on their activities.

3. Update on Emissions and Health Projects

Mr. Barben provided an overview of the outcomes of the 2018 Annual Forum discussion sessions, noting this had generated multiple projects for the Dialogue to progress in 2018.

Members discussed the project regarding a review of air quality monitoring data and were generally supportive of the Dialogue's proposed project. Mr. Barben advised that this project is responding to community concern regarding air quality and ongoing criticism that Upper Hunter air quality being worse than in other regions. In discussing how to approach the next steps, involving the formation of a project steering committee and the development of a scope, members provided the following feedback:

- The original 2018 Forum table discussion centred around putting a number on what people would be seeing in the air in an effort to quantify the visual components of air quality.
- While a number of consultants listed are not fully independent given their ongoing work with industry, it would be remiss not to seek to include the information they have gathered.
- There was concern that this work may be repeating CSIRO work from 2013 to identify particulates. The Chair and Mr. Barben noted that these past reports are now out of date and that this specific project although similar to previous work, is different and focused on comparing PM10 and PM2.5 figures from Upper Hunter sites with other regions.
- The Upper Hunter is subject to atmospheric conditions occurring across NSW, and while industry activity may play some part in conditions, this work might be better suited to the Government to undertake, rather than as a Dialogue responsibility.
- Air quality issues may often be more related to an issue of perception and visibility rather than any material impact. Mr. Barben noted the Dialogue needs to provide data and information to these discussions. The NSW Government work on addressing wood fire smoke was noted.
- Members suggested the Dialogue write to a number of the consultants/organisations to put together a proposal and their opinions on how this project could best be undertaken. However, other members were cautious of doing this as a scope is yet to be determined and they have not been involved in any discussions to date, so will have no context for the project.
- When the Project Steering Committee is assembled to develop the scope, it is important that one of the key objectives is that the community gets something out of this, and that the final product isn't an overly technical report. This is an opportunity to tell a story and explain what the community is seeing.

Mr. Barben recommended that anyone interested in joining the Project Steering Committee contact the Dialogue secretariat. Both Muswellbrook and Singleton Councils advised that they would be able to organise participation from a relevant staff member for the local government representative positions.

Other air quality projects being undertaken by the NSW government were also discussed.

ACTION:

- **Dialogue to progress with forming Project Steering Committee and seeking involvement of various stakeholders as per the project brief.**

4. Update on Land Management Projects

Mr. Barben and Mr. Milton provided an overview of the rehabilitation principles and commitments project, noting that the 2018 data is still being sourced from industry members. Information regarding the amount of buffer land is also being sought.

Members queried whether this was being done using information from a particular land use planning framework, and that given the data was being collected, whether there was any intention to look at how this may be used in the future. Mr. Barben noted that any considerations about the future use of buffer land fit under the Synoptic Plan gambit. There is currently no intention to expand the project but depending

on the feedback received there may be scope to include this as an arm of the Synoptic Plan Review.

Members discussed the progress made in relation to the ACARP past and present mine rehabilitation project, noting that environmental conditions have not been favourable. Members recommended seeking Malabar's involvement for soil profiling, given the Drayton site's significant rehabilitation progress.

Members briefly discussed the use of recycled organic material for use in mine rehabilitation, with industry members noting the current MWOO issue being considered. Members were generally supportive of industry increasing use of biosolids and organic food waste.

ACTION:

- **Dialogue secretariat to seek Malabar's involvement in ACARP past and present mine rehabilitation project.**

5. Update on Water projects

Mr. Milton provided an overview on the progress of the Dialogue's annual Water Accounting Framework project, noting the additional information requests to support the 2018 results. Members discussed that given the current environmental conditions, there was an increasing likelihood of voluntary water restrictions. Members recommended the Dialogue provide and promote information regarding industry water use and stewardship activities to ensure that Upper Hunter residents understand the limited water use in mining and what initiatives are being undertaken to reuse and reduce water usage. Mr. Bray noted that the annual meeting of the Hunter Water Users meeting was coming up shortly with State Water to present.

Mr. Barben also noted the Greater Hunter Regional Water Strategy which has received generally positive feedback and is currently being considered by the government. Members supported exploring opportunities for water sharing and reliability of resources, and also noted the impending closure of Liddell would provide an interesting case study for future use of water storage.

6. Synoptic Plan

Mr. Barben provided an update on the Synoptic Plan, noting the limited progress made recently following the state election. The Dialogue is keen to see this work wrapped up in the coming months.

7. Update on Communications Activities

Mr. Mackie provided an update on the key communications activities, with Mr. Milton providing a summary of the updated community survey results.

Members were interested in the Dialogue's community and stakeholder meetings program, with Mr. Barben advising that the Dialogue would be happy to provide an update to any parties expressing an interest. Members also queried whether the Dialogue would seek to undertake the CCC meetings on an annual basis, which the Dialogue would look at providing more regular updates.

8. Other Dialogue Working Groups and Steering Committees

Mr. Milton provided an overview of the progress of other Dialogue Working Groups, in particular the Economic and Social Development projects the Dialogue is working on.

9. Presentation: Dr. Neville Hodkinson - Bulga State Significant Conservation Area

Dr. Hodkinson provided a detailed presentation of a proposal submitted to the Dialogue for consideration. The project involves a two-phase two-year approach that seeks to undertake a composite mapping on the legacy mining will leave in the Hunter region. Dr. Hodkinson is seeking the involvement of mining companies to provide relevant historical information regarding cultural or heritage matters in the Cockfighters Valley precinct. Mr. Hodkinson is seeking support from the Dialogue (non-financial) and NSWMC for the State Significant Conservation Area.

Members noted other initiatives or funding programs that could support this work, such as:

- 'Heritage Near Me' funding and resources to support proposals such as this.
- OEH's conservation work for heritage vineyards, noting this is producing a GIS map to be housed

- on a local and state government platform
- Resources Regulator work to map out rehabilitation and final land use, which is also being explored through the Synoptic Plan review process.
- MTW Heritage Grant Fund through the Singleton Historical Society Heritage Committee, which supports a range of projects and criteria and is linked to OEH and company objectives.
- Local Land Services Aboriginal Reference Advisory Group, which Neville could be a part of to connect with work being undertaken through OWH and National Parks.

Members agreed that a thematic history document for the Upper Hunter region that encompasses the rich history and significance of the bovine, equine, wine and vine, and mining sectors and that this should be a multi-regional initiative, as it has significance for the whole of the Hunter.

Members noted that Dr. Hodkinson has discussed the proposal with a range of external stakeholders and questioned whether the Dialogue was the most appropriate body to progress this, noting that it would fit in better as a branch of the Synoptic Plan. Members suggested that an archivist or historian could be engaged by Dr. Hodkinson to review what has been done and what further information is needed.

Members felt that the proposal had merit and supported the general principles regarding mining's contribution to the local heritage, however felt the proposal needed a greater focus on outcomes and deliverables and needed to better connect to the Dialogue's objectives. Members supported the Dialogue secretariat writing to Dr. Hodkinson in the form of a letter of support for the project that can be provided in subsequent funding applications, given the ongoing interaction with a range of agencies/stakeholders.

ACTION:

- **Dialogue secretariat to write a response letter to Dr. Hodkinson's proposal and suggest alternative funding or support opportunities**

10. Other Business

Mr. Perry provided a brief update on a firestick farming initiative currently being progressed across Upper Hunter sites, which the Dialogue may be able to support. Mr. Perry noted that it is a growing industry and there is work being done to develop programs for mining specifically in conservation areas. Mr. Perry noted that mining companies currently manage conservation areas, which could be better and more appropriately managed by local Aboriginal people and provide significant employment opportunities.

The burns are cost-effective, involve no use of chemicals, are an effective weed control and can be undertaken on conservation, rehabilitation and biodiversity offset areas. Both farmers and mining companies can use the technology and knowledge gained from this practice in their own businesses. Mr. Perry has sent through information to the Dialogue secretariat for reference to explain how the process works and planning for how it will be done in the future.

Local Land Services has been involved in the last proposal, which has supported training for 4 students for a year and ongoing mentoring for 3 years. Local MP Michael Johnsen is also supportive of the proposals. Mr. Perry advised of an upcoming burn at Mt Owen, which nearby mining environmental managers have been notified.

Mr. Barben noted that some sites have reported positive results from some inadvertent or unplanned burns on mine sites, so there is increasing interest from within the mining industry for such proposals. Mr. Barben noted that a presentation update from Mr. Perry and a representative from Local Land Services (Jess Wegener) would be helpful for the Working Group to better understand the project and its outcomes at the September 2019 meeting.

ACTIONS:

- **Dialogue secretariat to distribute Mr. Perry's material for information.**
- **Dialogue secretariat to seek an update from Mr. Perry and a representative from Local Land Services at the next Working Group meeting to explain their project and share results with the Working Group.**

11. Next Meeting / Close

The meeting closed at 12:00 pm.

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

Action	Responsibility	Status
Analysis of Air Quality Monitoring Data		
Dialogue secretariat to progress with forming Project Steering Committee and seeking involvement of various stakeholders as per the project brief.	Dialogue secretariat	In progress
Presentation - Neville Hodkinson - Bulga State Significant Conservation Area		
Dialogue secretariat to write a response letter to Dr. Hodkinson's proposal and suggest alternative funding or support opportunities	Dialogue secretariat	Completed
Other Business - Laurie Perry - Firestick farming		
Dialogue secretariat to distribute Mr. Perry's material for information.	Dialogue secretariat	Completed
Dialogue secretariat to seek an update from Mr. Perry and a representative from Local Land Services at the next Working Group meeting to explain their project and share results with the Working Group.	Dialogue secretariat	Completed

**Upper Hunter Mining Dialogue
Joint Environment Working Group - 11 September 2019**

Agenda Item 3

PRESENTATION: UPDATE ON RECENT CULTURAL BURNS PROGRAMS

Laurie Perry (CEO, Wonnarua Nation Aboriginal Corporation)

The Wonnarua Nation Aboriginal Corporation was established in 1999 and represents the Wonnarua people. It focuses on nurturing the history and culture of the Wonnarua Nation, improving the health and education of its members and managing investments to sustain the Corporation's work.

The Wonnarua people are traditional landowners in the Hunter Valley of New South Wales. The Corporation is currently developing a map to define the traditional boundaries of Wonnarua country, based on written and oral historical records.

At the June 2019 meeting, Mr. Perry presented the Joint Working Group with a brief update on the Firesticks Alliance and the proposed Aboriginal Carbon Fund framework. Mr. Perry discussed the potential to introduce these two practices in Conservation and Biodiversity offset areas that mining companies manage across the Upper Hunter region.

Given there was interest from the Working Group in these practices and there have been multiple recent cultural burns in the Upper Hunter, the Dialogue secretariat has invited Mr. Perry and Hunter Local Land Services representatives to provide an update on the outcomes of these burns and future priorities across the Upper Hunter.

Toby Whaleboat (Senior Land Service Officer - Aboriginal Communities, Hunter Local Land Services); and

Jess Wegener (Aboriginal Community Officer, Hunter Local Land Services & Firesticks Alliance)

Local Land Services are a regionally based NSW Government agency that delivers quality, customer-focused services to farmers, landholders and the community. LLS staff are technical experts who help with agricultural production, biosecurity, natural resource management and during emergencies.

LLS' programs support customers with information, networks and resources to help improve agricultural productivity, control declared pests and meet your legal obligations, maintain market confidence in our 'clean and green' agricultural products, and manage and improve our natural resources.

LLS delivers services to the Aboriginal community and supports Aboriginal people to care for Country, share traditional land management knowledge and help protect and strengthen Aboriginal cultural heritage.

FOR INFORMATION/DISCUSSION

**Upper Hunter Mining Dialogue
Joint Environment Working Group - 11 September 2019**

Agenda Item 4

EMISSIONS AND HEALTH UPDATE

Please see below for a summary of current Dialogue projects and other activities being undertaken in the Emissions and Health area:

Analysis of Upper Hunter Air Quality Monitoring Network Data

The Dialogue's Steering Committee members have supported the Dialogue in conducting an analysis of Upper Hunter Air Quality Monitoring Network data to provide an assessment of long-term trends on PM10 and PM2.5 levels.

The project will involve an analysis and interpretation of existing air quality monitoring network data (specifically PM¹⁰ and PM^{2.5}) and other relevant contextual climate information (e.g. rainfall, temperature, weather and climate, wind speed/direction, solar exposure) to create a narrative around air quality in the Upper Hunter and answer the following questions:

1. Has the Air Quality in the Upper Hunter Valley changed since monitoring began? and
2. Is the Air Quality in the Upper Hunter Valley measured at the monitoring stations different from Air Quality measured at other locations in NSW?

The key benefits of this project will enable the Dialogue to:

- Provide accurate information to Upper Hunter stakeholders about the air quality they are experiencing in easily understood terms; and
- Provide clarity and certainty to the Upper Hunter air quality debate through an assessment and comparison of air quality measured at the Upper Hunter monitoring network to the air quality measured at other NSW regions, supported by data from independent organisations.

The Dialogue has sourced quotes from both CSIRO and ERM (formerly known as Pacific Environment) with proposals received. The project scope is **attached** for reference.

The project deliverables will include a summary report with technical analysis to address the objectives in plain English and will also include a short presentation of the key findings at the Dialogue's 2019 Forum in November. An additional task of preparing a FAQ or Fact Sheet style document for the Upper Hunter that addresses common air quality issues/concerns and using the summary data will be prepared by a specialist communications consultant.

The Dialogue is currently confirming members for the project steering committee and will be convening shortly to discuss the proposals. The Dialogue is seeking community participation in the project steering committee. Please contact the Dialogue secretariat if you are interested.

Upper Hunter Air Quality Monitoring Network - Autumn 2019 Updates

The Autumn 2019 seasonal air quality update was recently released by the OEH. Please see the update below for reference:

Autumn 2019

Upper Hunter air quality for 1 March to 31 May 2019 was generally good to fair. Muswellbrook and Singleton recorded very good to fair air quality indices within national benchmarks 97% and 98% of the time, respectively.

- Levels of fine particulate matter PM2.5 (particles less than or equal to 2.5 microns in diameter), nitrogen dioxide (NO₂) and sulfur dioxide (SO₂) were below benchmark concentrations.
- Daily average levels of PM10 (particles less than or equal to 10 microns in diameter) were above the 50 µg/m³ benchmark on 13 days (6, 11, 27 and 31 March, 8–9 and 26 April, and 2, 21–23, 27 and 29 May). Regional maximum daily PM10 levels on these days ranged from 50.5 to 113.8 µg/m³.
 - All sites recorded days over the PM10 benchmark, ranging from two days at Aberdeen,

- Bulga, Jerrys Plains, Singleton and Wybong, and up to ten days at Mt Thorley.
- The most extensive events occurred on 6 and 31 March, being exceptional events due to long range dust. March was the dustiest March for New South Wales since DustWatch records began in 2005.
 - On 6 March, PM10 levels over the benchmark were recorded at all 21 Upper Hunter, Newcastle and Central Tablelands sites. The region was affected by long-range dust transported from central and western NSW, ahead of a cold front.
 - On 31 March, 19 sites in the Upper Hunter (all sites except Bulga), Newcastle, Northern Tablelands and North West Slopes recorded PM10 levels over the benchmark. Elevated particle levels were observed at all sites in the Upper Hunter region from late the previous night and in the morning on this day, under light to moderate west-northwest to northwest winds.
 - Other than these two exceptional dust events, at the larger population sites PM10 levels were over the benchmark on 2 May at Muswellbrook, potentially affected by bushfire smoke.

Full report:

<https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Air/air-quality-monitoring-network-upper-hunter-autumn-2019-190429.pdf>

Dust Assessment Handbook

The EPA is currently updating the Dust Assessment Handbook following a brief period of industry consultation. The revised handbook is yet to be released.

Upper Hunter Dust Risk Forecasting Scheme

It is unclear if the EPA is continuing with the dust risk forecasting program.

OEH Air Quality Infographic

Work continues to progress on a NSW Government Air Quality Infographic. OEH is expected to present a final draft for endorsement by the Air Quality Advisory Committee in the coming weeks and is confident of having something to present to the Upper Hunter community in October. OEH has indicated they would be happy to attend the 2019 Annual Forum to discuss this resource and other initiatives with attendees.

Recommendation:

- **Working Group members discuss the scope for the Upper Hunter Air Quality Monitoring Data Project and provide feedback to the Dialogue secretariat on the preferred course of action.**

FOR INFORMATION/DISCUSSION

Attachment: Upper Hunter Air Quality Monitoring Data Analysis Project Scope

Upper Hunter Mining Dialogue Analysis of Upper Hunter Air Quality Monitoring Network Data Initial Scope August 2019

Background:

The Upper Hunter Mining Dialogue ('the Dialogue') regularly receives community stakeholder feedback regarding the impacts of mining activity on air quality in the Upper Hunter, specifically the two claims that:

- the air quality in the Upper Hunter is worsening, and
- the air quality is poorer in the Upper Hunter than in other regions.

The Dialogue's Steering Committee recently endorsed a project seeking to analyse available long-term air quality data gathered via the Upper Hunter Air Quality Monitoring Network data to provide an assessment of long-term trends of air quality in the Upper Hunter.

Objective:

The Dialogue is seeking to engage an air quality expert/organisation to undertake an analysis and interpretation of existing air quality monitoring network data (specifically PM¹⁰ and PM^{2.5}) and other relevant contextual climate information (e.g. rainfall, temperature, weather and climate, wind speed/direction, solar exposure) to create a narrative around air quality in the Upper Hunter and answer the following questions:

1. Has the Air Quality in the Upper Hunter Valley changed since monitoring began?
and
2. Is the Air Quality in the Upper Hunter Valley measured at the monitoring stations different from Air Quality measured at other locations in NSW?

Benefits:

The intent of this project is to enable the Dialogue to:

- Provide accurate information to Upper Hunter stakeholders about the air quality they are experiencing in easily understood terms; and
- Provide clarity and certainty to the Upper Hunter air quality debate through an assessment and comparison of air quality measured at the Upper Hunter monitoring network to the air quality measured at other NSW regions, with analysis supported by data from independent organisations.

Deliverables:

The final deliverables will consist of:

- a. A summary report with technical analysis to address the objectives in plain English;
- b. A short presentation of the key findings at the Dialogue's 2019 Forum.

Further, an additional task of preparing a FAQ or Fact Sheet style document for the Upper Hunter that addresses common air quality issues/concerns and using the summary data will be prepared by an external communications consultant.

Data:

All monitoring network data is freely available on the OEH website. OEH advises that full data validation is completed up to 31 March 2019. See link:

<https://www.environment.nsw.gov.au/AQMS/search.htm>

Contextual reports for the monitoring network are also provided by OEH on a quarterly seasonal basis that may provide additional supporting reference information. See link:

<https://www.environment.nsw.gov.au/topics/air/monitoring-air-quality/upper-hunter/upper-hunter-air-quality-reports>

Climate data is freely available from the BOM website, with locations generally tied to air quality monitoring sites. See link: <http://www.bom.gov.au/climate/data/>

Timeframes:

Seeking draft report to be delivered by Friday 1 November 2019 to allow for review and finalisation prior to showcasing results at the 2019 Forum on Tuesday 19 November 2019 in Singleton.

A number of progress updates throughout the project (e.g. in mid-September and mid-October) would be beneficial to address any issues identified by the project's steering committee.

**Upper Hunter Mining Dialogue
Joint Environment Working Group - 11 September 2019**

Agenda Item 5

UPDATE ON LAND MANAGEMENT PROJECTS

Please see below for a summary of current Dialogue projects and other activities being undertaken in the Land Management area:

Rehabilitation Principles and Commitments - 2018 Results

The Dialogue has reviewed all industry rehabilitation and disturbance data collected for the 2018 calendar year. A table summary of the 2018 results is included below for reference.

	Rehabilitation	2012	2013	2014	2015	2016	2017	2018
A	Total land area disturbed and not yet rehabilitated at the beginning of the reporting period	17,830	18,098	18,479	20,171	21,180	21,411	22,135
B	Total amount of land newly disturbed within the reporting period	1,163	1,148	1,057	1,424	1,270	1,327	1,958
C	Total amount of land newly rehabilitated within the reporting period (rehabilitation commenced in this period)	895	962	801	856	907	763	1,038
D	Total land area disturbed and not yet rehabilitated at the end of the reporting period (D = A + B - C)	18,098	18,283	18,736	21,008	21,304	22,028	23,055
E	Total area of rehabilitation at all operations at the end of the reporting period	8,791	9,145	10,023	10,783	11,653	12,370	12,714
F	Annual rehabilitation to disturbance ratio (C: B)	0.77	0.84	0.76	0.60	0.71	0.57	0.53
G	Overall proportion of disturbed land rehabilitated (E/(D+E))	32.7%	33.3%	34.9%	33.9%	35.4%	36.0%	35.5%
	Estimate of the total land held as biodiversity offsets	10,973	13,164	22,607	22,773	25,466	41,752	41,139
	Estimate of the total area of land managed for agricultural use (e.g. grazing, cropping, viticulture)	57,533	60,174	44,252	44,632	40,146	59,320	59,212

Note: All land area figures are reported in hectares (ha).

While there was a noticeable increase in the amount of newly disturbed land in 2018 compared to previous years, 2018 also recorded the highest total amount of land newly rehabilitated across the region in a single year since this reporting project commenced in 2012, with 1038 hectares of new rehabilitation commencing in this period.

Further, the total area of land under rehabilitation across all operations rose to 12,714 in 2018. Given the increase in the amount of newly disturbed land, the annual rehabilitation to disturbance ratio dipped to 0.53 (the lowest figure since the project commenced), and the overall proportion of disturbed land rehabilitated dipped slightly to 35.5% in 2018 from 36.0% in 2017, as a result of this record disturbance.

The amount of biodiversity offset land and managed land remained relatively static for 2018 following significant increases in the 2017 reporting year. The Dialogue secretariat will interrogate the reason why

the amounts of both fell within the past year and confirm the results received with industry members.

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

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

Rehabilitation Principles and Commitments - Reporting on Buffer Land

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

2018	Estimated Buffer Land	TOTAL (ha)
A	Agricultural land - grazing, dairy, cropping, intensive, other	40,990
B	Residential land	808
C	Commercial land	71
D	Recreational land	37
E	Other land (including vacant land and land not suitable for use)	3,627
	Total area of buffer land	45,533

Over 45,500 hectares or 450 km² of buffer land was estimated to be held by Upper Hunter mining companies, a figure similar to the amount of land held as biodiversity offsets.

The majority of buffer land held by mining companies is categorised as Agricultural land (90%). Another 8% of the total buffer land figure is made up of Other land (whether vacant land, land not suitable for use or uncategorised), with the final 2% consisting primarily of residential land. Commercial land and recreational land were reported in relatively minor amounts by mining companies.

The Dialogue liaised with industry to determine an appropriate definition of 'buffer land'. For the purposes of this reporting project, this is defined as 'land owned by mining companies that is outside the disturbance/operational footprint of currently approved operations. It does not include land held as biodiversity offsets. The amount of buffer land may vary over time as future approvals are granted.

This project has highlighted that there are differing interpretations of what constitutes 'buffer land' as well as the various subcategories listed. Industry was asked to provide advice regarding assumptions they had made in their interpretation of buffer land and the associated subcategories. Members also requested an update to the definition of Vacant Land to simply become Other Land (including Vacant Land and Land Not Suitable for Use).

Grazing Trials / ACARP study into rehabilitation projects

The ACARP study looking at past and present grazing on rehabilitated mine land continues to progress. A total of 23 field assessments (soil pits and surrounding pasture samples) were recently completed throughout June and July with the involvement of Liddell, Glendell, Rix's Creek and MTW.

Soil samples are currently being analysed for a range of physical, chemical and biological features. The soil pits were assessed via pits dug to 1.2m and samples taken down profile at each pit. Pastures were assessed using BOTANAL technique with ground cover and species diversity of most interest. Biomass was assessed at all sites but largely reflected if the site was grazed by cattle or kangaroos or not at all.

The sites sampled have a good spread of rehabilitation dates spread over and above 15 years, which will provide a good snapshot of changes in practices used and results to date.

The project is on track to submit a draft final report at the end of October. Unfortunately, this project was not able to address one of the original aims, which was to compare results from the initial project with other pasture rehabilitation in the valley. Access to resample the original sites was unable to be arranged at HVO or Mt Arthur due to multiple reasons including time constraints and changes to the mine area.

Finally, Neil Griffiths has announced his retirement from NSW DPI at the end of August 2019. Management of this project will be passed to Justine Cox and Nigel Phillips, with Nigel taking over financial management of the project and Justine looking after all reporting with assistance from Harry Rose. The management team will still be available to provide/present reports to industry and other stakeholders when needed.

Beneficial Reuse of Voids summary document

At the February 2019 Dialogue meetings, the Steering Committee Members supported the publishing of the Beneficial reuse of voids report materials and felt that this work would be of benefit to improve stakeholder understanding of post-mining land use in the Upper Hunter. A draft paper is currently being reviewed internally by the NSWMC for release shortly.

Pilot Pathway for Post-Mining Land Use

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

The Dialogue has been advised that there has been agreement at senior level in government to allocate resources to this project. DPC continues to work on their approach but will likely propose that we agree on 2-3 pilot sites and use these to develop new approach/framework.

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

Investigating Availability of Long-Term Void Water Quality Information Members

Member companies will be contacted shortly with a request to provide any new water quality information or data that sites may have regarding any voids which are in a steady state and are accumulating water. The intent of the project is for the Dialogue secretariat to support existing data collected through the Beneficial Reuse of Voids project and provide information into the long-term water quality debate regarding voids.

Operational Rehabilitation Compliance and Reporting Reforms

The Operational Rehabilitation Compliance and Reporting Reforms (the Reforms) are still under consideration by the Resources Regulator (RR). As yet, no revised Conditions, Codes of Practice or Guidelines have been released for review and remain with the NSW Parliamentary Counsel's Office.

Synoptic Plan

No update.

Recommendation:

- **Working Group members discuss the latest rehabilitation figures and provide feedback on the Dialogue secretariat's proposed course of action.**

FOR INFORMATION / DISCUSSION

**Upper Hunter Mining Dialogue
Joint Environment Working Group - 11 September 2019**

Agenda Item 6

UPDATE ON WATER PROJECTS

Please see below for a summary of current Dialogue projects and other activities being undertaken in the Water area:

Water Accounting Framework - 2018 Water Use Results

The Dialogue secretariat has analysed industry water use data for the 2018 calendar year. See the **attached** draft infographics, updated with 2018 figures, which are also included below for reference.

It is evident from the 2018 results that the past year had similarly low levels of rain to 2017, providing challenging conditions for mining operations. As a result, the mining industry's share of the total water used in the Upper Hunter River system has increased. Although, it is also worth noting that the share of farmers, residents and businesses also increased in the past year. The Dialogue will publish the results and updated infographics on the Dialogue's website following discussion with the Working Groups and Steering Committees.

Key Infographic Figures	2017	2018	Change
Water entering the Hunter River System (GL)	209.5	185.6	-23.9
TOTAL Environmental Flow (GL)	134.2	183.7	+49.5
TOTAL Extraction from the Hunter River (GL)	123.8	133.6	+9.8
- % of water extracted for farmer/resident/business use	56% (117.8)	64% (119.0)	+8% (1.8)
- % mining industry uses of Hunter River System's water	3% (6.3)	8% (14.6)	+5% (8.3)
% of water that stayed in the river	41% (85.6)	28% (52.0)	-13%
% of mine water sourced from onsite rainfall/runoff	39%	27%	-12%
Evaporation from dams (GL)	36.6	35.1	-1.5
- Factor of "water evaporated" to "mine extraction"	6	2	-4
TOTAL Mine Inflows (GL)	58.4	70.3	+11.9
- % of water sourced from deep aquifers	41%	33%	-8%
- % of mine water from river and alluvial aquifers	12%	22%	+10%
TOTAL Mine Outflows (GL)	65.7	69.3	+3.6
- % of mine water discharged into the Hunter River	0%	0%	same
% the mining industry reuses of its water onsite	55%	46%	-9%
Rainfall at Scone (mm)	360.3	362.7	+2.4
Long term average (mm)	636.8	636.0	-0.8

The Dialogue is also currently developing a Fact Sheet/Frequently Asked Questions (FAQ) document to help improve general understanding of some of the complex aspects of the water accounting framework. A draft document is anticipated to be provided by HEC for the Dialogue's review shortly. The Dialogue secretariat is also seeking clarification from HEC on the water reuse percentage and environmental flow figures. Dayjil Buhle will join the Joint Working Group via teleconference to provide a brief update.

Water Accounting Framework - Contextual Information and Industry Case Studies

As part of the 2018 WAF data request, the Dialogue secretariat has also sought to gather additional information from industry to provide some context to annual water results. This project was supported by the Steering Committees at the recent Dialogue meetings to discuss 2019 projects.

The Dialogue has received annual statements from all member companies and is currently finalising a document to be published on the Dialogue website, in a similar fashion to the Dialogue's annual Rehabilitation Principles and Commitments report. Several industry members have provided information on their water stewardship or water saving initiatives that have been implemented in the Upper Hunter, which the Dialogue will seek to develop into individual case studies and promote on the website and fact sheets.

Hunter River Salinity Trading Scheme (HRSTS) Water Quality Study

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

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

The Dialogue Secretariat sought advice from hydrological consulting firm HEC on a monitoring protocol to examine the actual discharge levels under regular discharge conditions. Given the sampling was taken during a prolonged dry period, the results are not representative of discharge conditions and would impact the results. The monitoring protocol has been provided to member companies and enacted when a discharge event occurs.

NSW Water Sharing Plans - Public consultation

The Natural Resources Commission has invited submissions from the public to inform its reviews of the water sharing plans for both the Hunter Unregulated and Alluvial Water Sources 2009 and Lower North Coast Unregulated and Alluvial Water Sources 2009, alongside other regions.

This is an opportunity to comment on the plans which govern water sharing arrangements in these regions, with the Commission specifically interested in any comments regarding the associated environmental, social and economic outcomes and any opportunities for improvement.

Submissions close at 5pm on Monday 16 September 2019. For information on how to make a submission, please visit: www.nrc.nsw.gov.au

Recommendation:

- **Working Group members review the preliminary Water Accounting Framework results for 2018 and discuss the Dialogue's approach to publishing this information.**

FOR INFORMATION / DISCUSSION

Attachment: Draft 2018 Water Accounting Framework Infographics

UPPER HUNTER WATER BALANCE 2018



Upper Hunter Mining Dialogue

Mining's water use

The Upper Hunter Mining Dialogue assessed water use by the mining industry in the Upper Hunter in 2018. Using a common accounting framework, mining companies have reported their water inflows and outflows from operations. This has helped them to manage their water use and embark on water saving and reuse opportunities.



ALMOST **2x**

as much water evaporated from the Hunter River System storage dams as was extracted from the Hunter River System by mining companies

The mining industry used

JUST 8%

of water in the Upper Hunter River System

ONLY

22%

of mine water came from rivers and alluvial aquifers

27%

of mine water was sourced from onsite rainfall and runoff

33%

of water was sourced from deep aquifers that are of limited use to other water users due to their high salinity

The mining industry

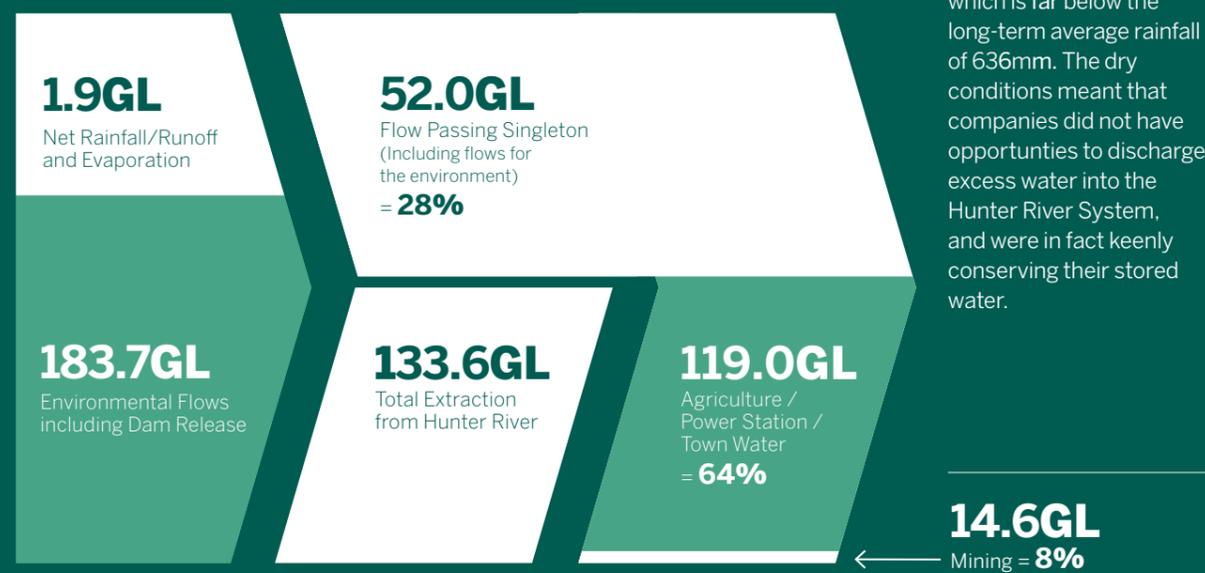
REUSED 46%

of its water onsite

ZERO

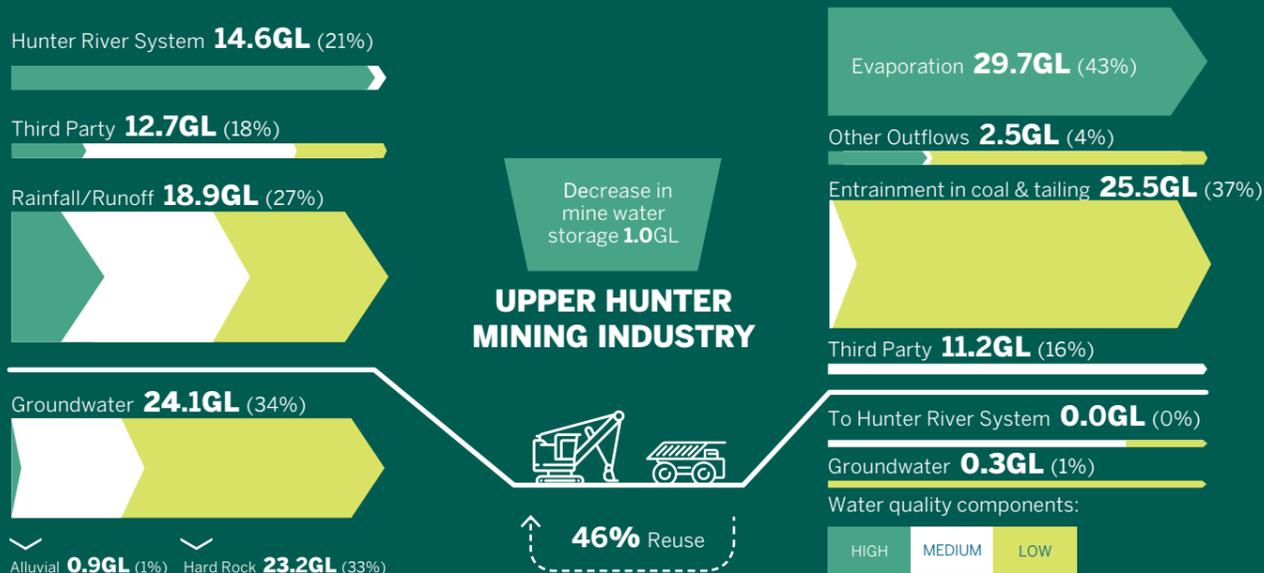
mine water was discharged into the Hunter River

Hunter River System Extraction



The rainfall in Scone during 2018 was 363mm, which is far below the long-term average rainfall of 636mm. The dry conditions meant that companies did not have opportunities to discharge excess water into the Hunter River System, and were in fact keenly conserving their stored water.

Mining Industry Water Use Balance



To find out more about the UHMD, visit miningdialogue.com.au

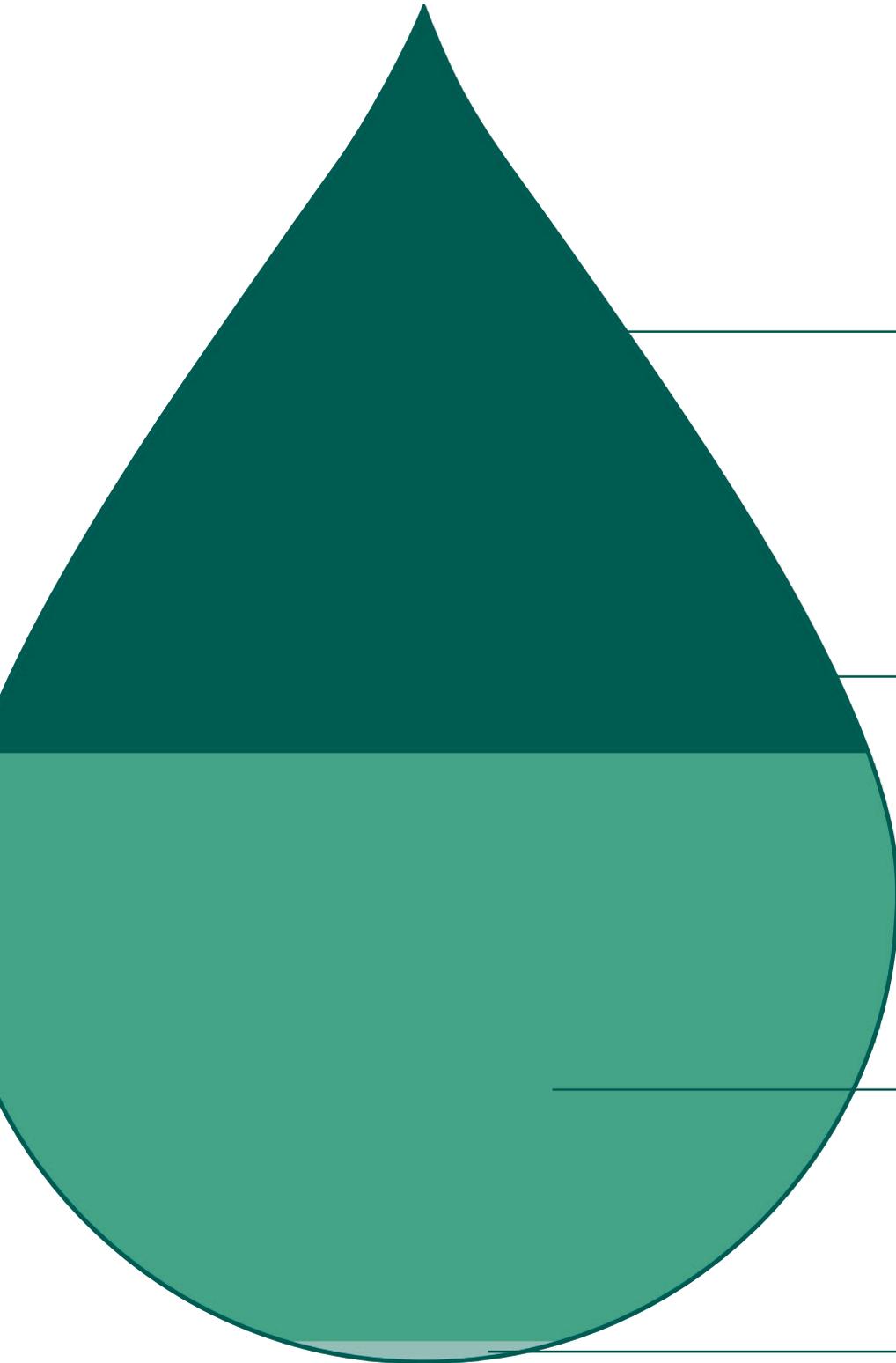
The NSW Minerals Council has compiled the data in this infographic using the best available information. Since water accounting is a complex task that relies on estimates and computer models, there are corresponding limits to the accuracy of the information. Sources: Bureau of Meteorology; DPI Water; NSW Minerals Council data.

THE HUNTER RIVER 2018

A precious water resource for the Upper Hunter community.



Upper Hunter Mining Dialogue



2018 was a drier than average year. That year

186 BILLION LITRES

entered the river system in the Upper Hunter.

28%

of that water stayed in the river.

The amount of water extracted and used by farmers, residents and businesses was

64%

MINING

used less than

8%

of the water in the system.

To find out more, visit miningdialogue.com.au

The NSW Minerals Council has compiled the data in this infographic using the best available information. Since water accounting is a complex task that relies on estimates and computer models, there are corresponding limits to the accuracy of the information. Sources: Bureau of Meteorology; DPI Water; NSW Minerals Council data.

**Upper Hunter Mining Dialogue
Joint Environment Working Group - 11 September 2019**

Agenda Item 7

2019 ANNUAL FORUM PLANNING

Issue

The Annual Forum is the Dialogue's major event and is an opportunity to engage with our key stakeholders and update them on our progress in the past year and seek their feedback on future priorities. It is important that the Dialogue considers how best to improve this event to ensure it continues to provide value and an opportunity for the community to have their say.

Background

The 2019 Annual Forum will be held on Tuesday 19 November 2019 at the Singleton Civic Centre, Singleton.

Earlier in 2019, the Dialogue's Working Groups reviewed the feedback received from participants in the 2018 Annual Forum. Feedback from last year's event was generally positive, with a record number of participants attending. As a result, the Dialogue secretariat has opted not to significantly alter the format for 2019, with the format consisting of some earlier presentations, moving into a networking and information session, a final discussion and feedback session, and ending with lunch and networking.

A draft 2019 Annual Forum agenda has been **attached** for review and discussion.

Key items to note:

- The Dialogue is keen to ensure that the projects endorsed by the Steering Committees and Working Groups are addressed in the opening 'Year in Review' presentation and promoted to stakeholders to demonstrate that issues raised and suggestions made through the annual Discussion Sessions will be discussed, considered, and actioned where possible to deliver outcomes for the Dialogue's stakeholders.
- As Air Quality continues to be reported as key issue for the region in 2019, it is important that this be a focus of an early presentation and the Dialogue will seek to include a presentation on the progress with the Air Quality Project, and potentially other OEH/EPA activities in this area.
- The Dialogue has been approached by Michael Wright, Deputy Secretary, Division of Resource & Geoscience, and Department of Planning; Industry & Environment who is seeking to be involved in the Forum. The Dialogue has considered this request and encouraged Mr. Wright to provide an update to stakeholders on the NSW Government's work in long-term planning issues (e.g. Synoptic Plan, Economic Diversification, Post-Mining Land Use Pathways etc.)
- The Dialogue will seek to directly invite key community stakeholder contacts to attend the 2019 Annual Forum and distribute information across their networks on behalf of industry members, (e.g. CCC groups, business chambers, councils and key local procurement networks)

Recommendation:

- **Working Group members review the draft 2019 Annual Forum Agenda and provide feedback to help guide the Dialogue secretariat's planning for the event.**

FOR INFORMATION/DISCUSSION

Attachment: Draft 2019 Annual Forum Agenda

Attachment: DRAFT 2019 UHMD ANNUAL FORUM AGENDA

Where: Singleton Civic Centre

When: Tuesday 19 November 2018, 8:30 am to 2:30 pm



Time	Length	Topic	Presenter
8:30 am	25 mins	Arrival and networking. Coffee, tea, muffins available	
8:55 am	5 mins	Call to order	
9:00 am	10 mins	Welcome from Facilitator, including: <ul style="list-style-type: none"> ● Setting the scene ● Acknowledgement of Country ● OHS overview 	Di Sneddon, Facilitator
9:10 am	20 mins	Dialogue Update: Provide update to attendees on the outcomes of 2019 projects supported from the previous Forum discussion session and introduce stalls for the networking and information session, including: <ul style="list-style-type: none"> ● Key Environmental projects, Air Quality Analysis, Water Accounting Framework, Rehabilitation principles and Commitments ● Economic development and diversification - Procurement materials and Events ● Communication and stakeholder engagement summary 	James Barben, NSWMC Sarah Withell, Chair, UHMD
9:30 am	15 mins	Upper Hunter Air Quality - Dialogue project and other initiatives	TBC
9:45 am	15 mins	Update on NSW Government's long-term land use planning projects	Michael Wright, Deputy Secretary, DPIE
10:00 am	90 mins	Networking between attendees and invited guests Key Dialogue projects will be supported by various project stalls where attendees are free to engage with representatives on a range of issues: <ol style="list-style-type: none"> 1. Local Procurement and Economic Development 2. Comms Projects - School Mine Tours and VR technology 3. Water stewardship - Water Accounting Framework 4. Rehabilitation and land management - Industry members and NSW Govt (DPIE, DRG, Resources Regulator) 5. Air Quality, Emissions and Health - Air Quality Project, NSW Govt activities (OEH, EPA) 6. NSW Government - Upper Hunter Long-Term Planning Update - Synoptic Plan Review Progress, Pilot Pathway to Final Land Use (DPIE and DPC), Economic Diversification <p>Note: Morning tea and refreshments will be made available during this session</p>	
11:30 pm	45 mins	In-table discussion on the projects Attendees will discuss what they have learnt from the morning networking session amongst their tables, identifying their Top ideas or projects to address them.	
12:15 pm	45 mins	Feedback and Discussion Feedback generated from the in-table discussions will be discussed further to help guide future Dialogue actions. Participants will then get to have their say on priority projects.	
1:00 pm	5 mins	Summary of Forum Outcomes	Di Sneddon, Facilitator
1:05 pm	5 mins	Forum Closing Remarks	Sarah Withell, Chair, UHMD
1:10 pm		Lunch - BBQ and networking	
2:30 pm		Forum Close	

**Upper Hunter Mining Dialogue
Joint Environment Working Group - 11 September 2019**

Agenda Item 8

UPDATE ON COMMUNICATIONS ACTIVITIES

Community and stakeholder engagement

- The School Mine Tours Program returns to the road in August and September with 14 tours from 7 schools scheduled across 6 mine sites. This follows on from the May/June schedule which saw 8 tours from 11 schools conducted across 7 mine sites. All but two Upper Hunter schools – in our catchment – are participating and all but one of the Dialogue partners' active mine sites have agreed to take part.
- Since the May update, the Dialogue has been on display at the Mangoola Family Day (May) and the NSWMC HSEC Conference (August). In the next few months, the Dialogue is scheduled to attend five more events including Broke Village Fair, Singleton Show, Westpac Rescue Helicopter Hunter Valley Charity Rugby League Day, Bengalla Open Day and the UHMD Annual Forum. According to the current schedule, by the end of the year the Dialogue will have been on display at 10 events in 2019.
- The new Virtual Reality Experience is proving popular at events. After debuting at Tocal Field Days in May, the VR had its second outing at the Mangoola Family Day and attracted 67 viewers in about three hours. Since then, the VR experience has been updated with a voice-over script which explains not only what is happening within the experience but also delivers Dialogue educational messaging. This latest version was released at the HSEC conference to very favourable reviews. The next stage of the VR development will be the production of a “summary” video which automatically takes viewers through the entire mining experience without having to move manually from stage to stage. The summary video will also incorporate the scripted voice-over and make the technology much easier to use.
- The inaugural Procurement Opportunities Breakfast was held in Muswellbrook in August with 130 attendees. Local business attendees had the opportunity to hear industry leaders and procurement experts explain current and upcoming procurement opportunities as well as network directly with industry representatives.
- Planning has started for the Dialogue's fourth newsletter which is due to be produced in October in the lead up to the Annual Forum.

Media

- Local media outlets continue to support the Dialogue with publicity including publishing articles on the Dialogue's community events schedule, the procurement opportunities breakfast, Thiess joining the Dialogue as an industry partner and a number of stories and photos on the school mine tours program. Articles have appeared in @thecoalface and Fairfax's Upper Hunter websites. The articles and photos have also been posted on the Dialogue's Facebook page.

FOR INFORMATION

**Upper Hunter Mining Dialogue
Joint Environment Working Group - 11 September 2019**

Agenda Item 9

UPDATE ON OTHER DIALOGUE WORKING GROUPS/COMMITTEES

The Dialogue has several Committees and Working Groups with differing objectives. It is important to share information and knowledge amongst all Dialogue groups where relevant to help inform discussions.

Please see below for updates on various Dialogue Working Groups and Committees:

Joint Advisory Steering Committee

As members were advised at the previous meeting, David O'Brien has stepped down from the position of Chair of the Upper Hunter Mining Dialogue and Steering Committees. Current JASC member Sarah Withell has accepted the position of the Chair and will commence these duties shortly. As Ms. Withell is currently a member of the Joint Advisory Steering Committee, the Dialogue will seek to fill the vacancy and will canvass Industry Steering Committee members for representation.

The JASC met in early July to discuss the progress made to date in relation to the annual Dialogue projects, as well as those 2019 projects recently supported. Of note was the air quality project, with the Committee supporting the Dialogue engaging with CSIRO to commence the project. Members also had an initial discussion regarding the 2019 Annual Forum, recommending that a Save The Date calendar invite go to members and the secretariat commence preparing a draft agenda for upcoming discussion, similar to the format of the 2018 event.

The Dialogue secretariat have been busy working to finalise a new community/business representative for the JASC following recent advertisements across the Upper Hunter media. Representation is currently being sought from the Muswellbrook Chamber of Commerce and Singleton Business Chamber.

The JASC is scheduled to meet next on **Thursday 26 September 2019** from 1:00 pm to 3:00 pm

Communications Working Group

The Communications Working Group met and discussed the Dialogue's progress across a number of relevant projects. Of interest was the Dialogue's CCC meetings and how useful they had been in distributing information regarding the Dialogue to key community stakeholders. Members were also interested in the Dialogue's updated community survey results as well as other opportunities for improving communication in the Dialogue's environmental projects.

The CWG is scheduled to meet next on **Tuesday 17 September 2019** from 2:00 pm to 4:00 pm.

Joint Economic and Social Development Working Group

The Joint Working Group last met in mid-June, to discuss the progress made in relation to the two key projects supported in 2019, including:

- Dialogue Procurement Information Hub - Members supported the Dialogue including information on both the website, but also in a pamphlet-style document, similar to the Hunter Region Procurement Toolkit.
- Mining procurement business events - Members noted the work underway for the Muswellbrook and Singleton business events coming up in August and September respectively, and that the Dialogue was seeking commitments from members to be involved.

The JESDWG is scheduled to meet next on **Wednesday 11 September** from 1.00 pm to 3:00 pm.

FOR DISCUSSION

**Upper Hunter Mining Dialogue
Joint Environment Working Group - 11 September 2019**

Agenda Item 10

OTHER BUSINESS

**Upper Hunter Mining Dialogue
Joint Environment Working Group - 11 September 2019**

Agenda Item 11

NEXT MEETING / CLOSE

The next Joint Working Group meeting is yet to be determined.

Meeting dates for all 2020 meetings will be determined following the Annual Forum in late November, with calendar invites sent out to members prior to the end of 2019.

FOR INFORMATION