

MT ARTHUR MINE COMPLEX

Community Consultative Committee Meeting – 12 September 2017

Attendance

Chairperson Dr. Colin Gellatly Company Representatives Chris White

Will Ringland Jason Desmond Janine Jamieson Chad Menzies Dave McCormack **Council** Cr. Mark Bowditch **Community Representatives** John Bancroft Di Gee **By Invitation / Guest Presenters** Michael Howat Mitchell Bennet **Minutes** Acting Media Specialist, Coal Corporate Affairs Community Team Planning - Mid Term Superintendant Specialist - Environment Corporate Affairs Manager - Community - East Coast Contract Engineer

Muswellbrook Shire Council

Independent Chair MAC CCC

Community Representative Community Representative

Environment Protection Authority (EPA) Environment Protection Authority (EPA) Sarah Purser

1. Welcome by Chairperson

Col welcomed members and advised that Michael and Mitchell from the EPA were in attendance to speak about the Upper Hunter Air Particles Action Plan and dust monitoring changes negotiated with Mt Arthur. For the benefit of new attendees, a round table introduction was conducted.

2. Apologies; No official apologies were advised.

3. Declaration of Pecuniary Interests;

Ongoing Declaration; Col advised that both he and Sarah are engaged by BHP Billiton to provide the respective roles of independent Chairperson and preparation of the meeting minutes.

4. Approval of the previous Meeting's Minutes

Col flagged there had been a delay in distribution of the 13 June 2017 Meeting Minutes due to some logistics and staff absences, he advised timing for release was to be worked on. Col asked for these Minutes to be approved, no feedback was provided by members, and the Minutes were taken as approved.

5. Matters Arising from the previous Meeting – Action Items

Chris to email Col the last advertisement calling for community applications to the MAC CCC.

Chris advised that MAC was committed to publishing an advert calling for new CCC members in the near future and that it was possible there would be three community places available due to uncertainty around Alex McDonald still being able to commit to the CCC. In addition, Chris advised that he had received interest from Jennifer Lecky at a recent community engagement session. <u>ACTION 1</u>: Chris to publish Advert calling for CCC Community Members and to provide Jennifer Lecky with Col's details so that he may assist her with the application process to become a member of the MAC CCC

<u>ACTION 2</u> : *Carried Forward;* Chris to invite a MAC Specialist Geologist to present on the depressurisation of coal seams at the December CCC Meeting.

In response to an enquiry from Mark; MAC to provide some detail on the towns where New Starters and Apprentices are located, in particular numbers of those who live within the Muswellbrook Council footprint.

Members were provided with a hand-out "Mt Arthur Coal : Council Area of Recruitment - Apprentices and New Starters up to the end of FY 17. Mark acknowledged receipt and advised he would look through the detail provided.

MAC to present on the V.P.A. when this is made Public, providing detail on where these funds are to be allocated.

The MAC Community Funding Investment Committee held a meeting at the Council Administration Centre on Tuesday 27 June, it was recommended that a funding contribution of \$400,000.00 be allocated from the Mt Arthur funds for an upgrade project of the Muswellbrook Race Club Facilities, including the modernising of Silks Function Centre and to realign the Finishing Post and Stewart's Tower to a safer position. Chris advised this had now been completed.

MAC to look into Product Coal (Mt) figures for the periods April to May 2016 of 2.7 compared to the same period in 2017 of 3.7 to see what may have attributed to the difference over these two months.

✓ Will felt the difference in product coal could be attributed to more bypass coal being put through the plant this year versus last year, along with strip ratios and wet weather impacts experienced in 2016. Will added that the drier conditions in 2017 had enabled MAC to hit their targets and that July and August of this year had been almost record months in prime coal movement.

MAC to provide a map showing where rehab is being conducted.

✓ At today's Meeting.

MAC to seek detail on the requirement for openings in the Bund Wall along Denman Road in relation to a concern raised by John that water may potentially travel off site through these holes.

- > The Bund Wall is not an engineered hydrological structure and is not designed to hold water.
- Any water that runs down the rehabilitated areas is caught in sediment dams behind the bund wall and this is classed as clean water.
- Water is largely transported around site to other storage areas and the main catchment is a massive specially designed dam with pumps in.
- The Bund Wall is in place to be more visually pleasing and is not designed as a dam or a facility to stop water, there has to be some openings for clean water to go.

John advised his concern was around water going off site and the potential for continuing incidents. John noted that was the reason he had questioned the openings in the Bund Wall and also queried why there was not a pump in place to transfer water that accumulates in the gulley to over the other side.

John felt there may have been a water incident back in May, that he had reported at the June meeting by providing photos and indicating some brown areas that had appeared where the tank is located. Chris advised that MAC did investigated this for John and had found no evidence of staining in that area, he noted that it is best to call the company at the time of a perceived incident or concern so that MAC can address the matter straight away, as for example in this case it may have potentially evaporated before it was looked in to.

Jason advised he could speak to the Civil Engineers as there was a lot of reporting around the design of the Visual Bund, along with consultation with the Department and Muswellbrook Council in relation to rehabilitation, the Geofluv design and water management.

<u>ACTION 3</u> : Jason to seek some detail from the Civil Engineers on the designing and planning of the Visual Bund wall, particularly around water management and in relation to flow off.

6. Update from BHP Billiton;

Presentation to be distributed with the Meeting Minutes

OVERVIEW OF OPERATIONS; Presented by Will

	Last 3 months	Previous 3 months	Previous Year 3 months		
Production Information	June-Aug FY 17/18	Mar-May FY 17	June - Aug FY16/17	Q-on-Q Difference	Year-on-Year Difference
OB Movement (Mbcm)	28.9	25.2	24.2	15%	19%
Coal Mined (Mt)	5.6	6.6	5.6	-18%	0%
Coal Uncovered (Mt)	5.6	5.5	6.0	2%	-7%
Product Coal (Mt)	4.8	5.2	4.2	-8%	14%

• **Overburden Movement;** This year there had been a similar pattern to F/Y 16 with the same mining hours and the coal in the seam somewhat similar. There had not been wet weather holding up operations as had occurred this time last year. It is a usual start to a new year to get a lot of coal, generally in the first couple of months and only overburden stands out in the above comparisons. It was noted a lack of wet weather conditions tends to be good for production.

Heat Map; Actuals - 3 Months

Dig (only) Progression Map EOM May- EOFY18_M11

- The Bund Wall has provided good noise protection through the winter period. With similar operations anticipated through summer, the Bund will also act as a dust barrier and will be at least 20 metres ahead of operations.
- Coming through into the summer period MAC will be dumping as low as possible, however this will be a bit higher on CD1 and that will continue the same as VD5.
- There is a fair bit of activity and a push to the northern area with a dump set up, along with hauling. It was felt that this was one of the best dump set ups for success in the north for the summer period.
- 4 MAC identified the potential impacts of haul trucks coming into summer and to address this has a lot of water carts in operations plus an additional fill point.
- CD2 is a short but high dump and there has been a back pocket dump set up in case of dry weather to allow movement from up high to down low to give MAC a bit of leeway in this area.
- **4** Down in pit dumping tends also to assist in alleviating dust.

Di asked if MAC utilise water carts at night and Will confirmed that the site is fully manned at night with carts going up even on dumps that are not going to be used. There is a fine line to successful dust suppression when utilising the water carts as there is potential for roads to become slippery if there is too much water applied. MAC tend to get a head start on potential hot days with water being applied before 9 a.m. Will advised there is another water cart hire coming on site and the company had been setting up more fill points to reduce the potential travel time from 15 minutes down, as even 10 minutes lost is 10 minutes that could be watering.

Mark mentioned there had been a type of additive utilised for dust suppression in the previous year and queried if that was still being used. Will explained there is a bonding element that can be added to water i.e. a dirt binding piece, however, dust aside, this tended to create a road surface that became more of an issue when equipment dragged mud up on to itself and it turned more into bulldust. Spraying a bonding agent over newly developed roads, results in more and more layers into the road and MAC are looking into the best material for road design i.e. crushing's that will not turn into bulldust.

ENVIRONMENT; Presentation by Jason

FY17 Rehabilitation Update

- Two areas on site designed to Geofluv natural landform design have been completed and can be seen along Denman Road.
- 🕹 Due to the dry conditions there had not been as much cover or growth as MAC would have liked.
- The MOP rehabilitation target of 43.1 hectares was exceeded with MAC completing approximately 13.5 additional hectares on an area at VD5, brining the rehab total to 56.5 hectares in F/Y17.
- The dump height was increased in winter to shield the mine site for air quality and dust which was aligned with a lot of planning and efficiencies.
- 4 22 hectares of Box-Gum Woodlands was completed during June 2017 (all Geofluv)

Rehabilitation Strategy

- 4 Another approximately 18,000 trees planted in biodiversity and rehabilitation areas during May and June.
- + This is additional to the 12,300 planted in April, a total of ~30,000 in total across all sites.
- MAC will follow up with watering and tubes.
- Tree guards have been hand-made by Koora Industries in Muswellbrook and MAC has received positive feedback as the makers travel by site and see the guards they have created.
- **Habitat has been incorporated into the new VD5 rehabilitation area with stag trees, nest boxes and rock.**
- + Harvesting the stag trees ahead of mining and placing them behind has been a good win for MAC.
- 150 nest boxes have been purchased to be installed across site made by Muswellbrook Men's Shed, again the community there have been excited to be part of this drive.

Six-monthly Spontaneous Combustion Report

- Spontaneous combustion can be more pronounced over winter and a few areas were surveyed during June to August, there will be a sub capping program with clay based on results found there.
- An aerial thermographic survey was completed in July.

Environmental Management

- For FY18 Rehabilitation the focus has been on continuing the Geofluv natural landform design from FY17 across the entire site. This will include higher dump lifts seen from Denman Rd being rehabilitated and CD1 dump areas.
- Rehabilitation improvement on VD1 will continue with further tree seeding in Spring 2017 and tree planting in Autumn 2018.

Environmental Performance

Elevated Environmental Monitoring Results

- Nil elevated Environmental Monitoring results or Environmental incidents.
- Nil exceedances for blast.
- Air quality was below criteria, though elevated PM_{2.5} had been noticed in results in the Upper Hunter that were attributed to localised factors i.e. bush fires

Environmental Improvements

- Four new real time TEOM's have been installed on EPL premises boundary to satisfy requirements of the EPL.
- These were installed prior to the 31 August 2017 deadline and are fully operational measuring real time PM₁₀.
- These monitors can measure contribution from a mining company as their locations were based on relevant wind conditions.

MAC to provide a map showing where rehab is being conducted.

Chris noted this had come from an action at the previous CCC meeting; to provide mapping where rehabilitation was being conducted. Chris advised that rehabilitation is part of the MOP : 5 year plan and that the green hatching identifies the rehab areas planned for FY18.



Mark felt on the tour out to site to look at the Geofluv that it was good to see the stag trees being used. With regard to rehab, Mark asked if that area will be seeded and MAC confirmed that all that area had been seeded prior to the end of June. Mark asked where those seeds had been sourced from and MAC responded that some had been harvested from on site restoration, a lot were from bio offset areas and some sourced from the local area. Mark questioned that they are not introduced seeds and MAC confirmed that the local area is defined to be within a 25 klm area, so therefore endemic to the area and climate.

Mark asked with regard to dust monitoring, to enable members to take information more effectively away from the meeting and share with other parties, if MAC could provide this data on a map rather than a slide. Mark said it would be helpful to have an overlaying map with dust monitoring from quarter to quarter to review and also an indication of weather conditions i.e. dry and windy or wet periods. Mark felt if members also had detail around wind direction and air flow that would help in understanding what the bund is for and where dust may potentially go.

<u>ACTION 4</u> : MAC to provide members with a represented vision / hard copy map, with dust monitoring overlayed for each quarter.

John asked as operations move towards Edderton Road and with regard to the mine void over towards Industrial Drive, would it be possible for MAC to fill this area from the base back up if there is no coal instead of placing on top. Will responded with the swinging around of Windmill, if an area is squarer this is possible and that will become one main dumping area.



Will pointed members to the reddish section at the top of the third line in the above picture and explained that was a dump void coming up that will then be rehabbed. Will explained it does get steep around that area and MAC will rely on that massive dump and that will be visual. Operations will then move over towards Edderton. Will explained there is the need to cover the extended resource so as not to dump over coal.

COMPLAINTS; Presentation by Chris

1 x Blast; Denman Road, 4 x Lighting; Roxburgh Road, 2 x Noise; Denman Road & Other, Nil for Noise

Chris felt in general terms with the dry and windy conditions, that seven complaints over the quarter was pleasing and had stemmed from the good work crews were doing with dust suppression.

Chris provided an overview of work that had been conducted by MAC to reduce offensive lighting plants, particularly for their neighbours along Roxburgh Road. A diagram had been produced by MAC's Compliance OCE to be circulated to the lighting teams. The OCE's have asked that different techniques be used to see if these would assist to alleviate concerns raised around the lighting plants on two dumps: CD1-300 and CD4-260N. The Compliance OCE's have requested that these lights be adjusted and MAC is trialling two lighting plants in these locations; one up close to the tip head, facing out but tilted down so the light does not shine outward and another light that is pointed back towards the dump.

From Marks point of view, lighting had been one of the biggest issues that he has raised and was pleased that the company had been working on this and had over halved the complaints from the previous CCC. Will acknowledged this new contractors education piece and feels that people were doing a good job with education.

In response to a query from John, Will confirmed that MAC are able to go up to 360 with lights. John asked if the company was working with the September 2011 Project Approval or the 2014 Modification and Will responded that it is the 2014 Modification and MAC are able to place lights above the horizon.

Community Support

- Supported and participated in the NSW Minerals Council's 'Voice for Mining' NRL Round at Hunter Stadium (Hi-Viz Day) – Knights vs Tigers
- 🖊 Sponsorship of Aberdeen Highland Games
- 🖊 Launched the Indigenous Artefacts Cultural Heritage Keeping Place during NAIDOC Week
- Attended HSEC Safety Conference at Pokolbin
- 4 Company representatives and speech by General Manager at Group 21 Awards presentation night
- Attendance and brand presence at Group 21 Semi-Finals and Grand Final Coming up
- 🖊 Launch and first committee meeting of Benefiting My Community small grants program
- Sponsorship opportunity of Singleton Show: 22 24 September
- 🖊 Mining Charity Rugby League Knockout comp: Singleton in October
- Local Buying Foundation Advisory Committee Meeting #3
- 🖊 Assessing proposal by Upper Hunter Mining Dialogue to conduct schools mine site tours (

MAC Tailings Storage Facility : Stage 2 Dam Embankment Raise : Project Overview

Presentation by Dave





Context

- The current Tailings Storage Facility (TSF) is the sole active TSF on site, and is part of current state Project Approval.
- A 4-stage MAC Tailings Storage Facility was approved by Dam Safety Committee in 2011, and 3 of the 4 stages by the Mines Inspector (Section 100 High Risk Activity approval) in 2011.
- Stage 1 was completed in 2013, taking the two distinct storages to RL 235.
- Latest forecasts estimate exhaustion of the existing facility in August 2019

The Tailings Facility until a few years ago was West Cut Void. The embankments indicated in purple will be Stage 2 Construction and take the raise to approximately RL250, which equates to a 12 metre raise in the current Tailings facility.

Milestone / Dates

- Commence construction; February 2018
- Complete South West Valley Raise; December 2018
- Complete West Cut Void Raise; December 2019



7. Presentation from the EPA Upper Hunter Air Particles Action Plan Presented by Michael Howat

Michael advised he is located at the EPA Office based in Newcastle that looks over the area from Gosford to Port Macquarie and over to Merriwa and that he was in attendance to talk about the Air Quality Optimisation Project that Jason had touched on and would cover its rationale, proposal, how it is applied, and the benefits seen.

Background

- > There was a vast array of air quality monitoring in the Valley.
- This included a range of technologies and monitoring types, some based close to site and some traditionally assessed at residences.
- > There has been significant advances in air quality monitoring technology available.

Between the EPA and Department of Planning there are two documents in place; the Development Consent and the Environmental Protection Licence and as a part of both these documents there are air quality requirements. As the word "optimisation" indicates, there has been a move to what was considered the best technology which resulted in a reduction of monitors but those in place are now in more strategic locations. There are two ways to monitor; 1) air quality impacts in the context of a near resident or receptor and 2) emissions off site. Previously monitors had been located quite a distance from the source and that had made it difficult for the EPA to assess where any impacts were potentially coming from.

The Upper Hunter Air Quality Monitoring Network

- This program is run by the Office of Environment & Heritage.
- There are 14 monitors across Muswellbrook, Singleton and located in a range of other indicative locations such as Merriwa.
- Data is available; close to real time, on-line and anyone interested can sign up to receive an email or text alert, or go to the website to bring up an array of tracking and visual colour coordinated snap shots of PM₁₀, PM_{2.5}, sulphur dioxide and oxides of nitrogen.
- This data can be used in line with site monitoring which is more indicative of an area i.e. monitoring from each source.

The Environmental Protection Licence (EPL) is a statutory instrument and includes the identification of emissions. There are a range of continuous monitoring and reporting requirements with each mine site. The UHAQMN is typically for receiver locations and the Optimised Monitoring is to provide site emissions and/or influence.

The BHP Environmental Management Report provided data on predominant wind direction via wind roses over a yearly period and this assisted with ascertaining the best monitoring locations to collect data upwind and downwind from a source. Generally every site did this same investigation to get wind profiles, then once specific locations were chosen there were other matters to go through such as supply of power, land ownership etc. The four monitoring points generally line up with projected wind direction.

John asked if these monitors measure for $PM_{2.5}$'s, the EPA explained their focus is on PM_{10} , however the UHAQMN does measure $PM_{2.5}$ and has monitors at Muswellbrook, Singleton and Camberwell. The reason for the focus on PM_{10} 's was that most of the dust that comes off a mine is courser and John responded that he felt it is the $PM_{2.5}$'s that are the health issue. Studies by the CSIRO indicated that $PM_{2.5}$'s are coming from combustible product, rather than from dirt and John was also concerned about diesel that the mines use as a potential source of $PM_{2.5}$'s. John felt that the dust you can see is not necessarily the dust that can hurt.

At of 1 September all sites in the Hunter Valley were operational with the new optimised monitoring and in terms of bad days, the Regulators will be able to go to each site and see what they may be contributing.

Advantages of the Optimised Monitoring

- ✓ Better value for the companies.
- ✓ Reduction in number and range of technologies.
- ✓ Being real time continuous.

John asked if the mines can now not have as many monitors and Michael advised this would not be a requirement from the EPA and explained that the TEOM's and PM₁₀'s are what the EPA are wanting, however if mines want to do additional monitoring they can. John was concerned that the mines do not then supply that monitoring data to the community e.g. daily PM₁₀ measurements and asked if it will no longer be a requirement for mines to provide monitoring data. It was responded that these TEOM's are more accurate from a site specific point of view and there are still several real time sites which are approved by the Department and will get reported to Public.

Col asked when data will be available from the Air Quality Optimisation Project monitoring. It was confirmed that these monitors were put in place in early August and there had been a commissioning phase to ensure all was working correctly and there was confidence in that data. Reporting then commenced 1 September. John felt that receiving data from a previous two month period is too late to take any action and it was confirmed the EPA monitoring provides alerts that will allow for immediate response.

Part of another associated program is the development of a model to predict dust PM₁₀. Many mines had recorded data for the spring period to see if a model can be created to predict, for example; the likelihood of a dusty day. The EPA monitoring is on every side of the mines, so when wind tends to howl down the Valley and there are high dust levels, they will have a better indication on where it is coming from.

John was worried about losing information as a result of this new monitoring system, he is not so worried about depositional dust as he feels if there are high numbers at someone's property, nothing really gets done about it. Col asked when the community will be able to see the actual data and it was anticipated that this data will be on the website end of September, early October. It was also confirmed that under Legislation with any monitoring associated with the Environmental Protection Licence there is a duty to make that publically available i.e. providing this on the website or if asked for it.

John asked if historical data will still be available and it was confirmed there is a requirement for this to remain on the website for four years. John asked if monitoring that is located 100 metres apart cannot be distinguished how would the EPA's work and if this data would be added to assess cumulative impacts.

The EPA advised the criteria is not standard, this is just boundary monitoring, it was not designed or never meant to be what the Upper Hunter Air Quality Monitoring Network is but rather to work in line with that community based ambient monitoring network.

John felt that this will provide the source but not the total impact and it was confirmed that data can be found on the Upper Hunter Air Quality Monitoring Network site. From the Trial Dust Forecast, the EPA is hoping to be able to assess how much is coming from Western NSW, then start to target the major contributors in the Hunter Valley if they are shown to be contributing sources. Each licensee is obliged to minimise dust so the EPA can go back to a particular day and ask what was the mine doing and the EPA can target inspections.

8. GENERAL BUSINESS; Community & Company Feedback

John Bancroft

John asked if the Agenda and Information Pack could be distributed two weeks prior to meetings. Will explained there continues to be an issue causing delay as the company was trying to obtain data for the CCC to the end of August for this September Meeting. It was agreed to schedule future meetings for the third week in a month, so the MAC team are able to collate data up to the end of the previous month.

<u>ACTION 5</u> : In response to a follow up from John, MAC CCC Meeting Minutes to be sent to Muswellbrook Library once they have been Endorsed by Chair.

John felt that criteria and data on the website is difficult to understand and locate, he felt the community were not happy with the limited information he can take away to share with others. Col hoped that would be improved with the new Optimised monitoring data coming through.

John advised his query raised at the previous meeting regarding non disclosure agreements still needed to be addressed and explained this was around the company organising the washing out of water tanks, cleaning windows / pools and the like. John felt that if someone had an issue and the mine go out and ask the resident what they would like them to do, this does not fix where the problem is coming from. John said there had been a lot of comment asking why some residents get this type of work done. MAC advised this would be dependent on modelling done pre-approval and John was interested to see that detail.

<u>ACTION 6</u>: MAC to provide some detail around the modelling for areas of Affectation & Mitigation at a future Meeting.

Mt Arthur

New Entrance Fence; MAC will communicate new requirements for access prior to the December Meeting.

Independent Environmental Audit on Site

Will explained this Audit stems from the Project Approval, Environmental Protection Licence and Mine Licence and that it is conducted against the previous three years of operating. It involves a lot of consultation with Government Departments and there was a requirement for the company to consult with the CCC on areas such as visual amenity, noise and air quality and to ask members what they may seek in terms of that audit. For example; if members had any concerns or what they felt the Auditors should oversee when on site. Will gave an example of the last Independent Audit in 2014 having favoured the website and then what had been undertaken at the audit and actions undertaken had been outlined.

Will explained MAC had provided seven referrals for the audit, that are independent, to the Department who then review them and they must be approved by the Department before MAC engages them. Will advised there is a fairly rigorous process in place by the Department of Planning to ensure specialists are fully independent.

Will advised this Audit Report is to be submitted in mid November and anticipated that the Audit would be completed within the next two weeks. Part of that Report will go onto MAC's website and Will was happy to provide a link to the CCC.

9. Date & Times for next MAC CCC & MAC/Drayton JOINT Meetings

TUESDAY 19 DECEMBER

At Mt Arthur Coal 2.00 p.m. to 3.00 p.m. MAC CCC 3.00 p.m. to 4.00 p.m. MAC/DRAYTON Joint

John advised he would be an apology for the December Meeting