

MT ARTHUR MINE COMPLEX
Community Consultative Committee Meeting – 6 September 2016

**Attendance****Chairperson**

Dr. Colin Gellatly Independent Chair MAC CCC

Company Representatives

Nick Woodbyrne Principal Mining Engineer
 Andrew Garratt Senior Manager Corporate Affairs, NSW Energy Coal
 Andrew Darnell Specialist Environment
 Katerina Stojakovic Corporate Affairs Team Administrator

Community Representatives

John Bancroft Community Representative
 Jenni Hayes Community Representative
 Di Gee Community Representative

Minutes

Sarah Purser - e) sarah.purser@bigpond.com

1. Welcome by Chairperson**2. Apologies; Nil received.****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

It was confirmed that the Minutes from the Meeting 8 June 2016 had been Endorsed by Chair after the comments period close. Kat advised the Meeting Minutes had been uploaded to the Company website at that time.

5. Matters Arising from the previous Meeting – Action Items

Col to liaise with Andrew and seek approval from the Department to re-advertise the MAC CCC Community Position.

ACTION 1: Col to follow up on his previous contact with the Department regarding advertising the Community Position.

In response to a query from John, MAC to advise the funding resource that was utilised for sealing Sheppard Avenue.

- ✓ Andrew G confirmed that this funding is taken out of Sites Operational Budget, this budget is utilised to run the mine and it is standard practice to include environmental works such as rehabilitation.

In response to a query from John; Sarah to liaise with her supervisor regarding the ability to present the TEOM's data for Sheppard Avenue in graph form for the period January to June 2016.

- ✓ Andrew D advised that Donna had confirmed that this data will be included in the Annual Environmental Management Report (AEMR). This Report is currently in First Draft Stage and will be available at the end of September.

John felt that MAC had gone to a lot of trouble to seal Sheppard Avenue and was interested to see the monitoring results before the road was sealed in April i.e. for the period January through to June 2016. John would also like to see this data provided as ongoing reporting post June. John had mentioned at the previous meeting that he felt the dust concerns were not necessarily related to race days and therefore wanted to see these monitoring results to ascertain if the road sealing had been a panacea to the dust issue.

ACTION 2: MAC to continue to provide updates on the TEOM data from Sheppard Avenue in relation to the effectiveness of the road sealing in reducing dust concerns.

Actions carried forward to future Meetings:-

ACTION 3: MAC to invite representatives from the EPA to present on the Air Quality Monitoring Optimisation project at a future meeting, possibly to the meeting for March to allow John to be present.

ACTION 4: MAC to investigate whether one of their Hydro Geologists could present on the depressurisation of coal seams at a future meeting, possibly to the meeting for March to allow John to be present.

Complaints data to be reported up to the end of month preceding the CCC Meeting in the Information Pack.

- ✓ **Completed.** MAC advised that compiling this data to the end of August had resulted in the Information Pack only being available a few days prior to the Meeting. The group agreed that future meetings be held mid-month to enable MAC sufficient time to compile and provide this data to members, most specifically to allow time for distribution by mail.

- 6. **Update from BHP Billiton – Presentation by Nick**
Presentation to be distributed with the Meeting Minutes

OVERVIEW OF OPERATIONS

	Last 3 months	Previous QTR	Previous Year		
Production Information	Jun-Aug FY16	Mar-May FY16	Jun-Aug FY15	QTR-on-QTR Difference	Year-on-Year Difference
OB Movement (Mbcm)	24.2	28.8	27.7	-16%	-13%
Coal Mined (Mt)	7.5	7.8	9.6	-5%	-22%
Coal Uncovered	6.0	5.3	7.3	12%	-18%
Product Coal	4.2	4.2	4.6	1%	-9%

- ✚ **Overburden Movement;** saw a bit of a decline in this waste both QTR-on-QTR and Y-on-Y due to; weather conditions, some equipment downtime i.e. a fleet of Diggers had been introduced largely at the same time and these were having mid-life replacement works and therefore there was less capacity available.
- ✚ **Coal Mining;** largely similar in the last few months with about 5% difference. Year-on-Year was substantially less as MAC had elected to leave some coal in the ground. Coal and overburden movement go hand in hand so therefore impact on each other, this has been deliberate in this case.
- ✚ **Coal Recovery;** was up for the QTR and trends that way for any QTR that covers a year end period, with a bit of a ramp up and run to the end of the financial year i.e. in the period June, July & August; June was a high recovery month. QTR-on-QTR difference is not quite as aggressive in coal recovery.
- ✚ **Product Coal;** similar QTR-on-QTR.

Jenni asked how this had compared to MAC’s expectations and Nick advised that the company do re-forecast each month and the decrease in F/Y 2016 compared to F/Y 2015 was due to the reasons mentioned, so there were no surprises in being slightly lower Year-on-Year.

MAC Heat Map – 3 Months Actuals; June to August 2016 – Refer presentation

For Slide Referencing; Cooler Colours = Dumps rising. Hotter Colours (Greens/Yellows) = where MAC has dug.

- ✚ MAC has focussed a lot of capacity in the South and put dirt into associated dumps near that dig.
- ✚ Next is Windmill which borders Denman Road where there will be some dumping and a bit of low level mining.
- ✚ Mining is fairly well balanced; in some areas there is not much mining activity and operations are more polarised than seen before being quite South/North orientated.

MacLeans Overburden Placement

Design Surface – forthcoming two years

John asked if MAC had been preparing to blast at the top of MacLeans Hill and Nick advised that is correct. Active coal mining will be seen to around February/March of next calendar year with overburden being placed in that area. Some selective dumping there will result in increases in certain areas to 10 to 20 metres and some down 15 to 20 metres.

- ✚ In accordance with MAC's Mining Operations Plan (MOP) and Consent; MacLeans overburden will be built up over this year with accelerated dumps in that area.
- ✚ Timing has been moved around, therefore it is business as usual but in a different sequence.
- ✚ MacLeans overburden will be seen quite prominently from Denman Road with Dump Trucks close to this road but within MAC's Lease.

Nick advised that his overview at this Meeting was to provide detail of what MAC is planning for this area and why to assist CCC members should they get questions from the community. Operations in this area will emerge over the next few months/years and MAC will provide quarterly updates to the CCC on the mines progression.

ACTION 5: MAC to look into a potential Site Tour for members to view the MacLeans site

Design surface that MAC are trying to achieve; Nick explained that MacLeans is an important area for the company to mine and provided a pictorial of the design surface that MAC is working on achieving over the next two years. Nick identified; the mix of surveyed surface, where the end of boundary/extraction limit is located and surrounding roads.

Mining & Haulage Strategy

- ✚ MAC will issue Diggers and Trucks for construction of a Geofluvial designed engineered state that will be pushed down to make a more natural landform.
- ✚ As the mine advances West, MAC will haul along and dump into this area.
- ✚ MAC will need to set up a Visual Screen against the Denman area, then onto a larger area.
- ✚ It is intended that MacLeans Hill be undulated topography and a contained dump.
- ✚ Material in this area is anticipated to last for approximately two years until the visual edge is built up further.
- ✚ Once the visual edge has been completed there will not be very much mining seen as it will be screened within natural topography, however the works being carried out now will be visual.
- ✚ Heights are to be at 40 metres and consist of four 10 metre lifts.

Visual Screening Wall

Nick advised that on the mine side of the haul road MAC will maintain dams to capture any potential run-off from this area and that there are three key dams on site. John noted that the bund wall has openings and asked why this wall could not be continuous. Nick responded that there would be access constraints but these are not to do with water management e.g. there are gates at some points and the bund wall is not designed to be a dam.

Nick advised that dams are properly engineered structures that are assessed by Structural Engineers and constructed in accordance with the Blue Book Design. Nick advised that MAC will be able to contain water on site as these dams have been designed in accordance with the run off that is anticipated based on this landform and also with the allowance of a 1 in 100 flood year.

John was concerned that water may run onto the road if it travels through the gaps in the bund wall and that there may also be some washing away of the wall. Nick confirmed that the bund wall is open, however MAC has placed dams on the mine side to provide sufficient protection.

Nick confirmed the bund wall is designed to act as a visual bund and John felt this was with the exception of where the openings were located. Nick advised that the openings are not left so big that this visual aspect would be of concern. MAC advised that closing the bund wall off had not been raised in forums nor was it in the scope of this work for the visual bund to be a continuous wall in its entirety.

Nick advised that remedial work had been conducted on this bund, along Denman Road about 6 months ago and confirmed John's query that this was the tapering down work per discussions with Scott Brooks from the Department.







John remained concerned that water could potentially flow through the openings in the bund wall and felt that if the wall was filled in then MAC could potentially pump water from the gullies back into their dams. Nick responded that it is not MAC's strategy to allow water get to the state where it was potentially flowing up to the bund wall.

Nick advised that the flat road is also required to carry water pipes back to Mine water fill points and dams, and there will be an access road and haul road for top soil. MAC will require access in this area as it is a critical pumping track and where haul trucks travel, Nick confirmed that access is on the inside of operations.

Design surface

For Slide Referencing; Mustard = This is the surface in the previous plan, what MAC has as of today.

Blue = Future planning.

-  Dams A, B & C are designed and constructed to take landform run off.
-  The surface is not a flat landform, it is designed around Geofluvial flow that will look more natural.
-  The 40 metre height is being built first and this starts at the base and works up.
-  The top of consent is around the 360 metre mark and the design is about channelling water for natural flow.
-  The height of 360 is the approved final landform surface in the Lease Boundary, this equates to relative levels or 360 metres above sea level.
-  To provide a sense of scale; Mount Arthur is at 420, so the consent height is about 60 metres below and the current dumps are around 320.

Nick confirmed maximum dump height is currently 320m and the crest is about 1 kilometre back from Denman Road

Preparation for start of dumping

For Slide Referencing; Green = Visual Edge Orange – Inside of site.

- ✚ The intent is not to have a high production dump against Denman Road and MAC will screen themselves by careful dumping.
- ✚ Access is always from the inside; there will be a road up an incline which is called a Ramp, that is a snaking type with lifts at 10 metres, 20 metres and the last one at 30 metres.
- ✚ MAC will start to build a higher dump, more on the inside, prior to the last lift.
- ✚ All lifts will blend into MacLeans Hill and are flat which helps from a design point of view. These are then moved around with bull dozers to get the final surface and established visual edge, this is anticipated to be completed around March 2017.
- ✚ The construction method is like with existing dumps where dozers come back through and bulk push any sharp edges down. It is MAC's aim that this will not take too long a time.
- ✚ MAC will need to make sure there is other work in the area for the Dozers as it is not viable to move this equipment just for one day.

Nick confirmed there will be dumping close to Denman Road with Trucks and Dozers being seen over the next few months and the first action to be undertaken will be the visual screen. Nick feels by January 2017 the very original waste mine lifts will progress into more natural landforms.

Di queried what vegetation MAC will be using as when driving towards Denman, it would appear the majority of trees planted are now dead and she felt this must be very disappointing for MAC as it would have been an expensive process. Di was concerned that it looked like trees had been planted and some had taken off but then they had been left to fend for themselves in this soiled area and asked how MAC was planning on going ahead given this situation. Andrew D advised that MAC had gone back in and conducted re-planting and maintenance work in the area that Di was concerned about. Di would like to see that work up and going so that rehab areas look the way the company say it is going to look. Di has had some experience with tube stock planting and watering needs to be taken into account; her understanding of the process is; planting, screening then the provision of additional water and reiterated she would like to see MAC take action and improve on this rehab.

Nick acknowledged also that there are optimal times of the year to plant i.e. in autumn away from the stress of summer and that there would not be much planting in winter. Nick advised that in terms of the land preparation process, the following is undertaken:-

- ✓ Land is bulk pushed.
- ✓ Rehabbed soil is stock piled.
- ✓ Contractors are engaged to spread the soil around due to the requirement to haul along a very narrow road.
- ✓ Top soil will then be in place after general shaping.
- ✓ Finally there will be seeding.

In response to a query from John, Nick advised that the existing visual bund will remain as it is and there are no plans for mine produced rock to be placed on that wall. Nick explained this bentonite wall is critical to cut MAC off from the Hunter River and vice versa should there be a flood event.

John asked what is the dumping process where the haul road travels. Nick advised that around 80 to 90% of the time MAC dump in 10 metre lifts onto the dump, then turn, back-up and dump behind themselves. Other times MAC may utilise paddock tipping; where a truck will travel up into a corner and tip which creates approximately 3 metre mounds of dirt. This has the advantage of not requiring a Dozer but there is less control on where the dirt is dumped and Nick does not want this process utilised on the outside.

John queried where lighting will be positioned and Nick advised that with all visual edges MAC ensures that lighting points inwards and not towards town or roads and explained how the company can position lighting on the lift below.

John felt there had been one single light pointing north/west, that was constantly positioned right up on the front point at the end of the bund wall, that had been there all the time. Nick believed this lighting may relate to the Crib Huts in that location and advised that the Truck park up would be illuminated.

Nick advised there should be no outward lighting on the mines visual edge and that Risk Assessments by the Visual & Production Teams are conducted on lighting, along with identifying community complaints and utilising mitigating strategies to deal with these i.e. lights facing inwards. MAC have a number of controls to mitigate concerns such as for dust control; dump heights were reduced from 20 metres to 10 and for noise control; MAC have sound suppressed trucks with the majority of the haul fleet sound suppressed. MAC currently have rubber tyre dozers, and sometimes these are used on the visual edges.

John feels the MacLean area is high profile and there will inevitably be complaints. John advised he can hear the “slap” of the Dozer on cold nights. Nick agreed with John that it is high profile and that there is some expectation for complaints - not through MAC’s lack of trying to minimise concerns but more so by the very nature of where it is located. Nick reiterated this was the reason the company felt it was important to run through what they will be doing and trying to achieve in the MacLean area with the CCC members. Nick feels there will be less potential for complaints down the track as MAC will effectively be shielding themselves off in years to come when in that area. Nick advised that MAC’s intent has been to accept a lot of constraints due to their proximity to community in an effort to give all the best of both worlds.

John asked how MAC ensures lights are not pointing outwards as he understands they need to be put on a certain side of Trucks for when they back up and whilst MAC cannot put lighting above the horizon John feels that these ones are. Nick explained this relates to lighting being above the pit horizon, MAC has the requirement to establish the visual edge and then not put lighting above that horizon, he advised that lights are put on the dump below and then pointed backwards into the mound.




Rehabilitation

Di was interested to see what the final micro relief will look like and Andrew G advised that MAC’s Rehab Strategy was currently going through approvals and the company could present on this when finalised. John asked if rehab will be completed by August/September 2017 as that is when the wind tends to pick up and noted that dust is an important issue. Nick said he would look at the schedule to see if MAC are on track and provide an update on rehab at the December Meeting.

ACTION 6: MAC to provide a Rehabilitation update at the December Meeting.

ENVIRONMENTAL MANAGEMENT – Presentation by Andrew Darnell

FY16 Rehabilitation Update

-  During the reporting period Mt Arthur Coal completed 56.8 hectares of rehabilitation.
-  This included 32.5 hectares of grazing pasture rehabilitation (land capability class six), 12.5 hectares of native woodland rehabilitation, and 11.8 hectares of box-gum woodland rehabilitation.
-  Organic Growth Medium (OGM) was trialled on a 10 hectare portion of the Drayton Void pasture rehabilitation which involved the spreading and incorporation of 1,000 tonnes of OGM into the topsoil.

- Under the modification project approval, Mt Arthur Coal has committed to rehabilitate 500 hectares of White Box – Yellow Box – Blakely’s Red Gum Woodland (referred to as Box Gum Woodland) to provide large areas of habitat adjacent to the conservation and offset areas and enable connectivity for fauna and flora throughout the woodland rehabilitation corridor.
- Approximately 4,000 tube stock of Box Gum Woodland shrubs and trees were planted in a 10 hectare portion of the VD1 rehabilitation area in June 2016.

Location	FY16 Rehabilitated Area (Hectares)
VD1	11.8
Drayton Void	13.5
Saddlers East	10.5
Saddlers South	14.8
MacDonalds	6.2
Total	56.8

John asked if cattle could be run on the rehab and Di was interested in what grazing pasture consists of and if the company has someone decide on its management e.g. pasture seed mixes. Andrew D advised that seed mixes are defined in the MOP.

ACTION 7: In relation to rehabilitated land Andrew D to liaise with Blake regarding seed mixes for grazing land and provide detail to Di out of session.

John recalled there was a community project with the School raising funds by growing tube stock and selling these back to the mine. Jenni advised this project is not currently being run. Andrew D advised MAC has a contractor that supplies tubestock who is very knowledgeable and passionate in this role. This contractor raises tubestock from seed collected both on site and on our offsets.

Environmental Performance

Elevated Environmental Monitoring Results

- **May 2016 – GW2 – Electrical Conductivity;** A review of the environmental contractor’s field sheet showed that the EC meter was not calibrated on the morning of sampling due to an accepted level of equipment error. **Action undertaken;** MAC has had the contractor change their procedure to recalibrate meters every morning before sampling commences. The lab result found that a result of 3,760 $\mu\text{S}/\text{cm}$ more accurately reflected the EC reading at GW2.
- **April and May 2016 – GW2 – Groundwater level. Investigation result;** Influenced by rainfall recharge.
- **June and July 2016 – GW39P – Groundwater level. Investigation result;** Likely cause was depressurisation of the coals seams within the open cut mine that was within the predicted order of magnitude. MAC confirmed this was a reportable incident.

Environmental Incidents

- Nil

ACTION 8: Andrew D to advise what the “P” stands for in the labelling of Bore Holes e.g. GW39”P”

COMMUNITY – Presentation by Katerina

Community Complaints & Trends

Kat confirmed that data had been compiled per John's request for the previous quarter plus to the end of month preceding the meeting, thus May to August, and that complaints had been detailed by issue and location. Kat provided an overview of these to the group including providing additional complaints data for the 12 month period; June 2015 to June 2016.

Question from last CCC - "John asked if the lighting concerns registered on the 6th, 7th and 26th of April were from one individual as he was interested if MAC were receiving complaints when lighting was in a particular area or facing a certain way and if so, why would the company continue have lighting there".

Response: All three complaints left minimal data, only a first name no last name, no address and no telephone number. Two complaints had the same first name one complaint was a different name all together. Also moving forward the Corporate Affairs team will provide up to date complaints data (up to month prior to meeting) however the environment data will not be available for comparison.

Partnerships

Local Buying Program – Over 100 suppliers now registered

- ✚ Community partnership discussions with Upper Hunter Community Services (Community Capacity Building Project), Hunter Life Education and Graham 'Polly' Farmer Foundation
- ✚ Continue to support Muswellbrook Chamber of Commerce breakfasts and Team participation in Book Week Celebrations at Muswellbrook Library
- ✚ Contribution to the Graham Polly Farmer Foundation Steering Committee plus MAC hosted a site visit for the students last month.
- ✚ Local Buying Program update at Muswellbrook Chamber of Commerce breakfast on Tuesday 2 August: to date, more than \$1.3 million spent in local contracts; Information sessions for suppliers and internal users were scheduled for first week in August;
- ✚ Renewal of partnerships – Graham Polly Farmer (1 Year) Hunter Life Education (3 Years) Wild Life Aid (1 Year)
- ✚ Community capacity building project was named a finalist in the Community Excellence Category at the 2016 NSW Mining HSEC Awards
- ✚ Aberdeen Highland Games & Eisteddfod –Successful events

Coming up

- ✚ Singleton Show
- ✚ Black Coal Cup

7. GENERAL BUSINESS

Member Feedback

Di

Di asked how the funding MAC provides to the Singleton Show is utilised and Kat advised that MAC does not direct where the money is utilised and it is up to the Show to allocate these funds where they are needed.

John

Dust Monitoring Data

John appreciated being supplied with the complaints detail but he would like to see the data from where this is compiled from and if there are members of the community complaining more than once. John is most interested to see the data from the Dust Monitors at Sheppard Avenue or St. James School to see what the trend is.

John understands that other CCC representatives at this meeting have stated that they do not want to see Monitoring Data but John had put in a request for the Sheppard Avenue data and advised that he gets asked about this detail by members of the community.

John raised that the Mines and the EPA are leaning towards other Hunter monitoring and his concern is that when there is an exceedence no one mine takes responsibility and the cumulative impact means that everyone is impacted by dust.

Col advised the whole point of the EPA's new Monitoring Program is to determine the different sources and asked John to select a couple of specific monitors that he would like data for.

ACTION 9: In response to a request from John; MAC to provide data for the Dust Monitors located at Muswellbrook and Racecourse Road for the previous 6 months.

MAC confirmed that the bulk of this data is presented in the AEMR which will be available at the end of September. John advised that he is specifically seeking this data in graph form and feels that real time data would be helpful.

John noted that the Approval for underground mining activities expires on 1 October 2016 and asked if MAC intended to let that lapse. Andrew G advised that he would need to seek a response from Sarah Bailey in Approvals.

Andrew Garratt

Andrew advised that as part of BHP's Regional Re-Structure his role at MAC had been made redundant. In addition Deidra is on Maternity leave so MAC will need to recruit for her role.

Col thanked Andrew for his significant contribution to the CCC and noted all the assistance Andrew had provided to Col in setting up this new CCC forum. Members joined Col in thanking Andrew for convening and driving the MAC CCC and the group agreed that this forum has been very successful.

8. Date & Time of next CCC Meeting

At Mt Arthur Coal
Tuesday 13 December at 1.30 p.m.

FOCUS TOPIC: Presentation by a representative from the MAC Blasting Team

SITE TOUR: MacLeans – Tour feasibility and timing to be confirmed by Nick

ACTIONS ARISING FROM THIS MEETING

Action	Page Ref	Description	Who
1	1	Col to follow up on his previous contact with the Department regarding advertising the Community Position.	Col
2	2	MAC to continue to provide updates on the TEOM data from Sheppard Avenue in relation to the effectiveness of the road sealing in reducing dust concerns.	MAC
3	2	MAC to invite representatives from the EPA to present on the Air Quality Monitoring Optimisation project at a future meeting, possibly to the meeting for March to allow John to be present.	MAC
4	2	MAC to investigate whether one of their Hydro Geologists could present on the depressurisation of coal seams at a future meeting, possibly to the meeting for March to allow John to be present.	MAC
5	3	MAC to look into a potential Site Tour for members to view the MacLeans site	Nick
6	6	MAC to provide a Rehabilitation update at the December Meeting.	Nick
7	7	In relation to rehabilitated land Andrew D to liaise with Blake regarding seed mixes for grazing land and provide detail to Di out of session.	Andrew D
8	7	Andrew D to advise what the "P" stands for in the labelling of Bore Holes e.g. GW39"P"	Andrew D
9	9	In response to a request from John; MAC to provide data for the Dust Monitors located at Muswellbrook and Racecourse Road for the previous 6 months.	MAC