Environmental Management

FY22 Rehabilitation Update
Bulk shaping and topsoil spreading is continuing in the Drayton Void area as part of the 43 ha FY22 target. Additional areas that will be rehabilitated in FY22 are VD5 and VD2 in the north of the operation.
Mt Arthur Coal is currently scoping a program of works to enhance the rehabilitation completed on VD1 for commencement in FY22. This work includes:
- Suppression of perennial exotic grasses;
- Removal of contour banks and the construction of dendritic drainage; and
- Diversification of flora through direct seeding and planting of tubestock.

Environmental Performance

Air Quality Monitoring (Period 1 October to 31 December)

- This paper (for the reporting period of 1 October – 31 December 2021) covers the performance of all six statutory PM10 monitoring sites using TEOMs, and the two dust deposition gauges.
- Zero days within the reporting period experienced elevated absolute PM10 TEOM monitoring results.
- Table 1 below provides an equipment performance summary.
- A guide has been provided at the end of this section to assist in the interpretation of the results and figures. The figures within this section have been developed in line with consultation with members of the CCC.

Table 1. Equipment Performance Summary

<table>
<thead>
<tr>
<th>Site</th>
<th>Date/s</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC04</td>
<td>30/12/2021</td>
<td>&lt;75% Data capture due equipment connectivity issues.</td>
</tr>
<tr>
<td>DC05</td>
<td>28/12/2021 &amp; 30/12/2021</td>
<td>&lt;75% Data capture due equipment connectivity issues.</td>
</tr>
<tr>
<td>DC06</td>
<td>8/12/2021</td>
<td>&lt;75% Data capture due equipment connectivity issues.</td>
</tr>
</tbody>
</table>
Mt Arthur Coal Community Consultative Committee

Sheppard Avenue – DC02
Data capture – 100%
Mt Arthur Coal Community Consultative Committee

South Muswellbrook – DC04

Data capture – 99%
Mt Arthur Coal Community Consultative Committee

Edderton Homestead - DC06
Data capture – 99%
Mt Arthur Coal Community Consultative Committee

Antiene - DC07

Data capture - 100%
Mt Arthur Coal Community Consultative Committee

Wellbrook – DC09
Data capture – 100%

[Bar chart showing 24-hour average concentration with Site Contribution, DC09 Background, and Impact Assessment Criterion]
Air Quality Monitoring Interpretation Guidance

This information has been provided to assist with the interpretation of the air quality monitoring results and figures within this report.

This graphic shows the window where the Mt Arthur Coal contribution is at risk of influencing the DC02 dust monitor based on the wind direction. This window can be referred to as the Arc of Influence. All 1-Hour Average Concentrations have been plotted for the reporting period to give an indication of Mt Arthur’s influence on DC02.
This graphic shows the cumulative Daily 24hr PM10 concentrations along with the incremental Mt Arthur Coal concentrations. This example shows that the cumulative 24hr concentration ('Background') of approximately 20ug/m3; the Mt Arthur incremental concentration ('Site Contribution') is represented by the orange coloured portion.
Deposited Dust

**DD08**
Data capture – 100%

![Graph of Depositional Dust DD08 (October - December 2021)]

**DD14**
Data capture – 100%

![Graph of Depositional Dust DD14 (October - December 2021)]
Water Monitoring (Period 1 October to 31 December)

**Groundwater**
Quarterly groundwater monitoring was conducted throughout December and January. Delays were experienced due to wet weather and COVID. Monitoring data has not yet been returned however reporting of any exceedances to the CCC will be provided in the next meeting.

**Surface water**
Surface water monitoring was conducted monthly during the three-month period. No exceedances of the criteria were detected.

Blast Monitoring (Period 1 October to 31 December)
There were no exceedances of the upper vibration and overpressure limits during the reporting period.

There was one blast in excess of the 115dBL over pressure limit. There is an allowed exceedance of 5% of blasts for these limits over a 12-month period. The 5% criteria has not been exceeded.

Operational Noise Monitoring (Period 1 October to 31 December)
There was one exceedance of operational noise criteria during the reporting period at the NP04 site located at Balmoral Road in Antiene Estate. This exceedance has been reported to the DPIE and HVEC is waiting for a response.

Monthly night time compliance monitoring (attended) was completed to schedule by MAC’s external expert consultant. MAC is not informed of when this monitoring is scheduled for completion to ensure there is a true representation of operational activities on any given night.

Environmental Incidents (Period 1 October to 31 December)

**NP04 Attended Monitoring Incident**
On 20 October 2021 HVEC notified the DPIE of a 1dB exceedance of the LAeq (15 minute) criterion at NP04 (located at Balmoral Road in Antiene Estate) at 22:58 on 18 October 2021. On 11 November 2021 HVEC submitted an initial investigation report into the result to the Department followed by a subsequent detailed report on the 10 December 2021. HVEC is waiting for a response and will provide further detail to the CCC at subsequent meetings once further information is available.

Environmental Reporting (Period 1 October to 31 December)
The Annual Return required by the HVEC Environmental Protection Licence was submitted during the reporting period.

Historical information is available to view on the BHP website using the following link:

[https://www.bhp.com/environment/regulatory-information#](https://www.bhp.com/environment/regulatory-information#)
Environmental Monitoring Plans (for reference)

Air Quality and Meteorological Monitoring Locations (Source: Air Quality Management Plan)
Site Water Monitoring Locations (Sourced and modified from: Site Water Management Plan)

Surface Water Monitoring Locations:
Ground Water Monitoring Locations:
Blast Monitoring Locations (Source: Blast Management Plan)
Operational Noise Monitoring (attended) Locations (Source: Noise Management Plan)
Community Complaints

The Community Complaints included in this report are for the period 1 October to 31 December 2021. Mt Arthur Coal received nine (9) complaints during this period. Of the nine complaints, five (5) were related to lighting; one (1) to blasting activity; one (1) to dust and two (2) in the “other” category related to debris on the road of Thomas Mitchell Drive as a result of MAC South/Thiess not washing LVs thoroughly before leaving operations and one related to traffic safety for one of our contractors using Thomas Mitchell Drive and Denman Road – a traffic controller was immediately engaged.

Of the nine (9) complaints received for the three-month reporting period, five (5) came from residents at Roxburgh Rd, one (1) from Muswellbrook, one (1) from Sheppard Avenue. Those in the other category were from Hassal Road, New England Highway (which was determined to be an earthquake and not a blast),

![Community Complaints by type](chart1.png)

![Community Complaints by location](chart2.png)
## Community Complaints Summary: 1 October to 31 December

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>From</th>
<th>Issue</th>
<th>Lodgement type</th>
<th>Investigation and response to caller</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/10/21</td>
<td>7:04pm</td>
<td>Roxburgh Road, Muswellbrook</td>
<td>Lighting</td>
<td>Community Response Line</td>
<td>Investigation revealed location of one stationary light, which was adjusted to the resident's satisfaction.</td>
</tr>
<tr>
<td>4/10/21</td>
<td>5:08pm</td>
<td>Roxburgh Road, Muswellbrook</td>
<td>Lighting</td>
<td>Community Response Line</td>
<td>Nearest real-time monitor did not record any exceedances or distribute any alerts. Caller was advised of investigation and monitoring results.</td>
</tr>
<tr>
<td>13/10/21</td>
<td>8:32pm</td>
<td>Roxburgh Road, Muswellbrook</td>
<td>Lighting</td>
<td>Community Response Line</td>
<td>Investigation revealed location of stationary lights, which was switched off to the resident's satisfaction.</td>
</tr>
<tr>
<td>21/10/21</td>
<td>8:00pm</td>
<td>Roxburgh Road, Muswellbrook</td>
<td>Lighting</td>
<td>Community Response Line</td>
<td>Investigation revealed location of stationary light, which was adjusted to the resident's satisfaction.</td>
</tr>
<tr>
<td>22/10/21</td>
<td>12:00pm</td>
<td>Denman Road, Muswellbrook</td>
<td>Other</td>
<td>Community Response Line</td>
<td>Immediate installation of a dedicated traffic controller to direct truck movements entering and exiting BHP property.</td>
</tr>
<tr>
<td>30/10/21</td>
<td>5:22pm</td>
<td>Shephard Avenue, Muswellbrook</td>
<td>General Dust</td>
<td>Community Response Line</td>
<td>Operations were modified to lower levels in response to airborne dust evident due to strong southerly winds. No dust monitor exceedances were recorded for the period. Caller was advised of result.</td>
</tr>
<tr>
<td>2/11/21</td>
<td>7:50pm</td>
<td>Hassell Road, Muswellbrook</td>
<td>Lighting</td>
<td>Community Response Line</td>
<td>Investigation revealed location of stationary light, which was modified to the resident's satisfaction.</td>
</tr>
<tr>
<td>17/12/21</td>
<td>6:56pm</td>
<td>New England Highway, Muswellbrook</td>
<td>Blast Vibration</td>
<td>Community Response Line</td>
<td>Investigation revealed MAC didn't blast at the time. The impact was due to magnitude 3 earthquake as recorded by Geoscience Australia.</td>
</tr>
<tr>
<td>23/12/21</td>
<td>2:03pm</td>
<td>Muswellbrook Shire Council</td>
<td>Other</td>
<td>Community Response Line</td>
<td>Investigation revealed, MAC South (Thiess) vehicles use the LV wash bay facility at MAC North or manual cleaning of vehicles as required. As a result of complaint, Thiess reminded teams of the requirement to ensure any vehicles leaving site to be adequately cleaned.</td>
</tr>
</tbody>
</table>
### Actions from previous meeting/s

The actions from previous meetings are listed below.

<table>
<thead>
<tr>
<th>Action</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Actions from 10 November 2021 meeting</strong></td>
<td></td>
</tr>
<tr>
<td>Action 1: BHP to contact Telstra regarding poor mobile phone reception.</td>
<td>Contacted Telstra, awaiting coverage report. Aiming to provide update at next meeting.</td>
</tr>
<tr>
<td>Action 2: BHP to provide technical information on the 115 decibel limit.</td>
<td>To be presented at next CCC Meeting.</td>
</tr>
<tr>
<td>Action 3: BHP to gather information to discuss BHP’s strategic directions with regard to coal and Mt Arthur and implications for Muswellbrook and the Upper Hunter at the next meeting.</td>
<td>To be presented at next CCC Meeting.</td>
</tr>
<tr>
<td><strong>Actions remaining open from previous meetings</strong></td>
<td></td>
</tr>
<tr>
<td>Action 1 (Feb 2019): Chair to get in touch with the DP&amp;E (DPIE) to ascertain if a Department representative could attend a future CCC meeting to speak about the cumulative impacts of dust. The DP&amp;E were contacted.</td>
<td>Ongoing. Chair to update at next meeting</td>
</tr>
<tr>
<td>Action 2 (Nov 2019): Chair to arrange a department representative to discuss the lighting issue and associated community impacts particularly through the provision of defining offensive lighting.</td>
<td>Ongoing. Chair to update at next meeting</td>
</tr>
</tbody>
</table>