

**Boggabri Coal Mine Independent Environmental Audit, August 2020 – Audit Action Plan**

Reference	Schedule and Condition Number	Condition	Compliance status	Evidence	Recommendation	Proposed action	Target Completion Date																
<b>Project Approval 09_0182</b>																							
NC1	Schedule 3 Condition 9	<p>The Proponent shall:</p> <p>(a) Ensure that:</p> <ul style="list-style-type: none"> <li>- All new trucks, dozers, drills and excavators purchased for use on the site after the date of this approval are commissioned as noise suppressed (or attenuated) units;</li> <li>- Ensure that all equipment and noise control measures deliver sound power levels that are equal to or better than the sound power levels identified in the EA and that correspond to best practice or the application of best available technology economically achievable.</li> <li>- Where reasonable and feasible, improvements are made to existing noise suppression equipment as technologies become available; and</li> </ul> <p>Monitor and report on the implementation of these requirements annually on its website.</p>	Non-Compliant Low Risk	<p>(a) Annual testing of mobile plant and equipment is undertaken. Test results are compared with the Boggabri Coal Mine Environmental Assessment (Hanson Bailey 2010). Sound power screening levels greater than 3 dBA are considered significant and require further investigation.</p> <p><u>Non compliances</u> of sound power levels for a number of mobile plant were reported in the 2017, 2018 and 2019 Annual Reviews. BCOPPL have been implementing a plant attenuation, monitoring and review program across the audit period which has involved the trial of three sound attenuation kits on six 930E Komatsu trucks. This trial is ongoing.</p> <p>As reported in the Boggabri Coal Mine - Noise Modelling Assessment (April 2020) the majority of the mining fleet currently operates at sound power levels higher than modelled for the EA. The noise modelling assessment was undertaken to evaluate if compliance with noise limits can be achieved with the current plant.</p>	<p><b>NC REC:</b> continue investigations and dialogue with DPIE regarding sound power level requirements.</p>	BCO will continue to liaise with DPIE regarding sound power level requirements.	30/01/2022																
NC2	Schedule 3 Condition 15	<p>The Proponent shall ensure that the blasting on the site does not cause exceedances of the criteria in Table 6.</p> <table border="1"> <thead> <tr> <th>Location</th> <th>Airblast overpressure (dB(Lin Peak))</th> <th>Ground vibration (mm/s)</th> <th>Allowable exceedance</th> </tr> </thead> <tbody> <tr> <td>Residence on privately owned land</td> <td>120</td> <td>10</td> <td>0%</td> </tr> <tr> <td></td> <td>135</td> <td>5</td> <td>0% of the total number of blasts over a period of 12 months</td> </tr> <tr> <td>All public infrastructure</td> <td>-</td> <td>50 or alternatively a specific limit determined to the satisfaction of the Secretary by the structural design methodology in AS 2187.2-2006, or its latest version</td> <td>0%</td> </tr> </tbody> </table> <p>However, these criteria do not apply if the Proponent has a written agreement with the relevant owner or infrastructure provider/owner, and the Proponent has advised the Department in writing of the terms of this agreement.</p>	Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance	Residence on privately owned land	120	10	0%		135	5	0% of the total number of blasts over a period of 12 months	All public infrastructure	-	50 or alternatively a specific limit determined to the satisfaction of the Secretary by the structural design methodology in AS 2187.2-2006, or its latest version	0%	Non-Compliant (Low Risk)	<p>As reported in the 2019 Annual Review, a blast fired on 21 August 2019 recorded an airblast overpressure of 123 dBL exceeding the 120dBL criteria. This exceedance was attributed to a short- term fluctuation in the upper air wind conditions that could not have been reasonably foreseen.</p> <p>An incident report was prepared which concluded that:</p> <p><i>Blast design investigations indicate that tie in and firing conditions of the blast would ordinarily result in basic blast emission of less than 115dBL and that 123dBL can only be explained by the effects of meteorology.</i></p> <p>It is noted that no exceedances have been recorded since this time. The real time blast monitoring and weather system has been sighted and is implemented.</p> <p>This exceedance was reported to DPIE on 28 August. BCOPPL was issued with a warning letter from DPIE on 18 October 2019 for not reporting the blast overpressure exceedance within seven days of the incident. Notification of the exceedance was sent via text and email but was originally missed. This is attributable to the amount of trigger text messages which were received, particularly under the old system.</p>	<p><b>NC REC:</b> Ensure blasts are undertaken under appropriate weather conditions. Delays to blasts should be implemented if required based on real time weather data review.</p> <p><b>NC REC:</b> Implement changes to the TARP notifications system to distinguish "triggers" from "exceedances" so that reportable exceedances are not missed</p>	<p>Blasts will only be undertaken during appropriate weather conditions. Delays will be implemented if required based on weather conditions in accordance with the Blast Management Plan</p> <p>The TARP notification system will be revised to distinguish between 'triggers' and 'exceedances'.</p>	01/08/2021
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All public infrastructure	-	50 or alternatively a specific limit determined to the satisfaction of the Secretary by the structural design methodology in AS 2187.2-2006, or its latest version	0%																				
NC3	Schedule 3 Condition 22	<p>The proponent shall prepare and implement a Blast Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) Be submitted to the Secretary for approval within 6 months from the date of project work.</p> <p>(b) be prepared in consultation with the EPA, the CCC and interested members of the local community potentially affected by blasting operations;</p> <p>(c) propose any alternative ground vibration limits for public infrastructure in the vicinity of the site;</p> <p>(d) describe the measures that would be implemented to ensure:</p> <ul style="list-style-type: none"> <li>- best management practice is being employed; and</li> <li>- compliance with the relevant conditions of this approval;</li> </ul> <p>(e) include a road closure management plan for blasting within 500 metres of a public road, that has been prepared in consultation with Council;</p> <p>(f) include a specific blast fume management protocol to demonstrate how emissions will be minimised including risk management strategies if blast fumes are generated;</p>	Non-Compliant (Low Risk)	<p><b>Preparation</b></p> <p>The latest version of the Blast Management Plan is dated November 2018. Approved by DPIE on 21st February 2019.</p> <ol style="list-style-type: none"> <li>The Blast Management Plan was originally prepared in January 2013, with this being within six months of the Project Approval.</li> <li>the current Blast Management Plan November 2018 summarises consultation undertaken in Appendix D</li> <li>Alternate ground vibration covered in Section 5.1 of plan</li> <li>Section 6 of BLMP</li> <li>Section 6.3 of BLMP</li> <li>Appendix C</li> <li>Section 7 of BLMP</li> <li>Appendix E of BLMP</li> </ol> <p><b>Implementation</b></p> <p><u>Non-compliant</u> due to 120 dBL exceedance.</p>	<p><b>NC REC:</b> Ensure blasts are undertaken under appropriate weather conditions. Delays to blasts should be implemented if required based on real time weather data review.</p>	<p>Blasts will only be undertaken during appropriate weather conditions. Delays will be implemented if required based on weather conditions in accordance with the Blast Management Plan</p>	01/08/2021																

		<p>(g) include a monitoring program for evaluating the performance of the project including:</p> <ul style="list-style-type: none"> <li>- compliance with the applicable criteria; and</li> <li>- minimising fume emissions from the site; and</li> </ul> <p>(h) include a Leard Forest Mining Precinct Blast Management Strategy that has been prepared in consultation with other mines within the Leard Forest Mining Precinct to minimise cumulative blasting impacts.</p> <p><i>Note: The Leard Forest Mining Precinct Blast Management Strategy can be developed in stages and will need to be subject to ongoing review dependent upon the determination of and commencement of other mining projects in the area.</i></p>																												
NC4	Schedule 3 Condition 27	<p>Except for the air quality affected land in Table 7, the Proponent shall ensure that particulate matter emissions generated by the project do not exceed the criteria listed in Table 9, Table 10 and Table 11 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.</p> <p>Table 9: Long-term criteria for particulate matter</p> <p>Table 9: Long-term criteria for particulate matter</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th>Criterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td>* 90 µg/m<sup>3</sup></td> </tr> <tr> <td>Particulate matter &lt; 10 µm (PM<sub>10</sub>)</td> <td>Annual</td> <td>* 30 µg/m<sup>3</sup></td> </tr> </tbody> </table> <p>Table 10: Short-term criteria for particulate matter</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th>Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter &lt; 10 µm (PM<sub>10</sub>)</td> <td>24 hour</td> <td>* 50 µg/m<sup>3</sup></td> </tr> </tbody> </table> <p>Table 11: Long-term criteria for deposited dust</p> <p>Table 11: Long-term criteria for deposited dust</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th>Maximum increase in deposited dust level</th> <th>Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td>Deposited dust</td> <td>Annual</td> <td>* 2 g/m<sup>2</sup>/month</td> <td>* 4 g/m<sup>2</sup>/month</td> </tr> </tbody> </table> <p>Notes to Table 9, Table 10 and Table 11:</p> <p>a Total impact (ie incremental increase in concentrations due to the project plus background concentrations due to all other sources);</p> <p>b Incremental impact (ie incremental increase in concentrations due to the project on its own);</p> <p>c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.</p> <p>d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents or any other activity agreed by the Secretary.</p>	Pollutant	Averaging Period	Criterion	Total suspended particulate (TSP) matter	Annual	* 90 µg/m <sup>3</sup>	Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	* 30 µg/m <sup>3</sup>	Pollutant	Averaging Period	Criterion	Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	* 50 µg/m <sup>3</sup>	Pollutant	Averaging Period	Maximum increase in deposited dust level	Maximum total deposited dust level	Deposited dust	Annual	* 2 g/m <sup>2</sup> /month	* 4 g/m <sup>2</sup> /month	Administrative Non-Compliance	<p>Evidence of air quality monitoring in Annual Reviews. Evidence of assessing the potential contribution of the site towards air quality criteria provided as notes and not included in the Annual Reviews.</p> <p>1 Jan 2017 - 31 Dec 2017 - Table 4-3 of the Annual Review identifies the Roma and Merriown monitoring locations as locations to be used for compliance monitoring. However, Section 4.2.2.2 of the 2017 Annual Review outlines that the one exceedance of the short-term PM10 criterion recorded at the Merriown HVAS monitor and the two exceedances recorded at the Roma HVAS monitor "are not considered exceedances as the monitoring location is not used as a compliance measurement tool". Moreover, the exceedances described above do not match data presented in the charts. According to the chart, only a single exceedance of the 24-hour average PM10 criteria was recorded at Roma and no exceedances at Merriown.</p> <p>1 Jan 2018 - 31 Dec 2018 - Based on the information provided, the site was within criteria. There were some days of extraordinary events and some days when the site was upwind from the monitoring stations which recorded an exceedance.</p> <p>1 Jan 2019 - 31 Dec 2019 - Based on the information provided, the site's compliance could not be established. The Annual Review mentions that 53 exceedances of the short term PM10 criteria were recorded by the Wilberoi East TEOM and that these were either due to extraordinary events (41 occasions) or due to sources other than the site. No evidence of incident investigations for 2019 was provided. Based on the information presented, there is no evidence that the criteria in S3 C27 have been exceeded as a result of BCOPPL emissions.</p> <p><u>Admin non-compliant</u> as status of extraordinary event days has not been agreed with the Secretary and DPIE was not notified of recorded exceedances of the relevant air quality criteria.</p> <p>Whilst it is acknowledged that exceedances of the air quality criteria do not necessarily equate to a non-compliance, it is considered that all exceedances should be notified to DPIE, particularly given that note (a) to Schedule 3 Condition 27 states that criteria are "Total impact (ie incremental increase in concentrations due to the project plus background concentrations due to all other sources)". If the exceedance is not attributable to BCOPPL operations, evidence of the investigation or data that led to this conclusion should be provided with the notification.</p>	<p><b>NC REC:</b> It is recommended that in line with the requirements of note (d) of Schedule 3 Condition 27 of the Boggabri Coal PA, confirmation be sought from the secretary on the status of days believed to be extraordinary events prior to classifying any day as an extraordinary event day and removing the day from the annual average.</p> <p><b>NC REC:</b> all exceedances of the relevant air quality criteria be investigated in accordance with the requirements of the AQGHGMP to determine if they are attributable to BCOPPL operations</p> <p><b>NC REC:</b> DPIE should be informed of any exceedance of the relevant air quality criteria, regardless of the exceedance being a non-compliance or not. If the exceedance is not attributable to BCOPPL operations, evidence of the investigation or data that led to this conclusion should be provided with the notification;</p> <p><b>NC REC:</b> a standard methodology should be developed for the investigation and reporting of any exceedances recorded by the air quality monitors.</p> <p><b>Improvement REC:</b> In the interest of transparency it is recommended that:</p> <ol style="list-style-type: none"> <li>1) a table of all days with exceedances of the 24-hour average criteria be included in the annual reports together with findings of any investigations and status of days as determined by DPIE (extraordinary day or not); and</li> <li>all valid data captured by the TEOM be reported and included in the chart. Extraordinary days may then be excluded from the annual average calculations</li> </ol>	<p>BCOPL will seek the concurrence of the secretary for the classification of 'extraordinary events' prior to the status of days being classified as 'extraordinary events'.</p> <p>All exceedances of the relevant air quality criteria will be investigated in accordance with the requirements of the AQGHGMP to determine if they are attributable to BCOPPL operations.</p> <p>BCOP will inform DPIE of exceedances of air quality criteria regardless of whether it is a non-conformance or not. Evidence of investigation or data used in concluding whether an exceedance is attributable to BCOP will be provided with exceedance notification to DPIE. A standard methodology for the investigation and reporting of any exceedance of relevant air quality criteria will be incorporated into the next revision of the AQGHGMP. BCOPPL will report in the Annual Review</p> <ol style="list-style-type: none"> <li>1) a table of all days with exceedances of the 24-hour average criteria together with findings of any investigations into the status of days as determined by DPIE (extraordinary day or not); and</li> <li>2) all valid data captured by the TEOMs will be reported. Extraordinary days can then be excluded from the annual average calculations.</li> </ol>	01/08/2021
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NC5	Schedule 3 Condition 31	<p>The Proponent shall prepare and implement an Air Quality and Greenhouse Gas Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with the EPA and the CCC, and be submitted to the Secretary for approval within 6 months from the date of project approval;</p> <p>(b) integrate the recommendations of a Site Specific Best Management Determination and Reactive Dust</p>	Administrative Non-Compliance	<p>There is evidence of the site not effectively implementing the AQGHGMP as follows:</p> <p>1) DPIE was not notified of recorded exceedances of the relevant air quality criteria. Whilst it is acknowledged that exceedances of the air quality criteria do not necessarily equate to a non-compliance, it is considered that all exceedances should be notified to DPIE, particularly given</p>	<p><b>NC REC:</b> all exceedances of the relevant air quality criteria be investigated in accordance with the requirements of the AQGHGMP to determine if they are attributable to BCOPPL operations</p> <p><b>NC REC:</b> DPIE should be informed of any exceedance of the relevant air quality criteria, regardless of the exceedance</p>	<p>All exceedances of the relevant air quality criteria will be investigated in accordance with the requirements of the AQGHGMP to determine if they are attributable to BCOPPL operations.</p> <p>A standard methodology for the investigation and reporting of any exceedance of relevant air quality</p>	01/08/2021																							

		<p>Management Strategy prepared to the satisfaction of the EPA;</p> <p>(c) describe the measures that would be implemented to ensure:</p> <p>...</p> <p>(d) describe the proposed air quality management system;</p> <p>(e) include a risk/response matrix to codify mine operational responses to varying levels of risk resulting from weather conditions and specific mining activities;</p> <p>(f) include commitments to provide summary reports and specific briefings at CCC meetings on issues arising from air quality monitoring;</p> <p>(g) include an air quality monitoring program that:</p> <p>....</p> <p>includes a Leard Forest Mining Precinct Air Quality Management Strategy that has been prepared in consultation with other coal mines in the Precinct to minimise the cumulative air quality impacts of all mines within the Precinct, that includes:</p>		<p>that note (a) to Schedule 3 Condition 27 states that criteria are "Total impact (ie incremental increase in concentrations due to the project plus background concentrations due to all other sources)". If the exceedance is not attributable to BCOPL operations, evidence of the investigation or data that led to this conclusion should be provided with the notification;</p> <p>2) while notes relating to exceedances of relevant air quality criteria were provided, these exceedances (even though not necessarily non-compliances) were not logged in the Incident Register and evidence of completion of BCOPL Incident Report Forms were not provided. It is also noted that a standard methodology was not adopted for the presentation of the investigation findings.</p>	<p>being a non-compliance or not. If the exceedance is not attributable to BCOPL operations, evidence of the investigation or data that led to this conclusion should be provided with the notification;</p> <p><b>NC REC:</b> a standard methodology should be developed for the investigation and reporting of any exceedances recorded by the air quality monitors.</p>	<p>criteria will be incorporated into the next revision of the AQGHGMP.</p> <p><b>This will reflect outcomes of consultation with DPIE in relation to the classification of the status of days as 'extraordinary events'.</b></p>	
NC6	Schedule 3 Condition 38b	<p>A Surface Water Management plan, which includes:</p> <ul style="list-style-type: none"> <li>- Detailed baseline data on surface water flows and quality in the waterbodies that could potentially be affected by the project.</li> <li>- Detailed baseline data on soils within the irrigation management area;</li> <li>- Detailed baseline data on hydrology across the downstream drainage system of the Namoi River floodplain from the mine site to the Namoi River.</li> <li>- A detailed description of the water management system on site, including the; <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Clean water diversion system</li> <li><input checked="" type="checkbox"/> Erosion and sediment controls (dirty water system);</li> <li><input checked="" type="checkbox"/> Mine water management systems irrigation areas</li> <li><input checked="" type="checkbox"/> Discharge limits in accordance with EPL requirements</li> <li><input checked="" type="checkbox"/> Water storages</li> <li><input checked="" type="checkbox"/> Haul road and Boggabri Rail Spur Line and bridge flood and water diversions;</li> </ul> </li> <li>- Detailed plans including design objectives and performance criteria for: <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Design and management of final voids</li> </ul> </li> </ul> <p>Design and management for the emplacement of reject materials, sodic and dispersible soils and acid or sulphate generating materials.</p>	Non-Compliant (Low Risk)	<p>The implementation of the currently approved surface water management plan is non-compliant as the clean water drain presented in Appendix A of the SWMP to the north of the disturbance area has been mined through and has not been reinstated. It is acknowledged that the update to the SWMP (Rev8) has been prepared depicting the absence of the clean water drain and that a report has been prepared by GHD to justify not reinstating this drain and to evidence that the site is not harvesting clean water outside of harvestable rights allowances.</p> <p>The update to the SWMP was submitted to the DPIE for approval in July 2019; however, given that it has yet to be approved the implementation of the approved SWMP is non-compliant. It is recommended to continue to liaise with DPIE with regard to the approval of the revised water management system and the removal of the clean water diversion.</p>	<p><b>NC REC:</b> continue to liaise with DPIE with regard to the approval of the revised water management system and the removal of the clean water diversion.</p>	<p>BCOP will submit to DPIE revised SWMP's that contemplate the removal of the clean water diversion drain.</p>	01/08/2021
NC7	Schedule 3 Condition 38(c)	<p>(c) a Groundwater Management Plan, which includes:</p> <ul style="list-style-type: none"> <li>- detailed baseline data of groundwater levels, yield and quality in the region, and privately-owned groundwater bores including a detailed survey/schedule of groundwater dependent ecosystems (including stygo-fauna), that could be affected by the project;</li> <li>- the monitoring and testing requirements specified in the PAC recommendations for groundwater management as set out in Appendix 6;</li> <li>- detailed plans, including design objectives and performance criteria, for the design and management of the proposed final void;</li> <li>- groundwater assessment criteria including trigger levels for investigating any potentially adverse groundwater impacts;</li> <li>- a program to monitor and assess: <ul style="list-style-type: none"> <li>o groundwater inflows to the open cut mining operations;</li> <li>o the seepage/leachate from water storages, backfilled voids and the final void;</li> <li>o interconnectivity between the alluvial and bedrock aquifers;</li> <li>o background changes in groundwater yield/quality against mine-induced changes;</li> </ul> </li> </ul>	Administrative Non-Compliance	<p>"Preparation Approved Groundwater Management Plan (May 2017) reviewed.</p> <ul style="list-style-type: none"> <li>* Baseline data provided in Section 3.3</li> <li>* Monitoring and testing requirements in Section 4</li> <li>* Trigger levels included in Section 5</li> <li>* Section 7.3 states groundwater model will be reviewed very three years.</li> <li>* Procedures for managing exceedances is included</li> </ul> <p>Implementation</p> <p>Groundwater monitoring is undertaken quarterly with a detailed analysis of results presented in the Annual Groundwater Monitoring Review undertaken by GHD. The review assesses BCM's groundwater monitoring data and provides analyses on groundwater levels and groundwater quality. Findings from the review are summarised in the Annual Reviews.</p> <p>Based on the results presented in the Annual Reviews, groundwater levels have remained within trigger levels during the audit period.</p>	<p><b>NC REC:</b> Continue to liaise with EPA regarding EPL variation to ensure that monitoring points in EPL align with those utilised by the site.</p>	<p>BCOP will continuing to liaise with EPA regarding EPL variation to ensure that monitoring points in EPL align with those utilised by the site.</p>	01/08/2021

		<p>o the impacts of the project on:</p> <ul style="list-style-type: none"> <li>- regional and local (including alluvial) aquifers;</li> <li>- groundwater supply of potentially affected landowners;</li> <li>- aquifers potentially affected by the mine irrigation area;</li> <li>- groundwater dependent ecosystems (including potential impacts on stygo-fauna) and riparian vegetation.</li> </ul> <p>a program to validate the groundwater model for the project, including an independent review of the model every 3 years, and comparison of monitoring results with modelled predictions; and</p> <p>a plan to respond to any exceedances of the performance criteria; and</p>		<p>Groundwater bores 2102 and 2103 were not monitored in 2018 and 2019 due to damage of the bore casing. Monitoring at bores 2104 and 2105 was not undertaken as they were not accessible and MW6 was not monitored as it was blocked.</p> <p>Boggabri, Tarrawonga, Maules Creek Complex Numerical Model Update prepared by AGE dated 17 August 2018. "</p>			
NC8	Schedule 3 Condition 64	<p>Within 12 months of the completion of the Gunnedah Traffic Study, the Proponent shall provide a report of the outcomes of this liaison and identify any proposals recommended by either the Proponent or the Gunnedah Shire Council towards implementing reasonable and feasible recommendations, to the satisfaction of the Secretary."</p>	Administrative Non-Compliance	<p>No evidence of a report could be provided however, the rail over pass in Gunnedah was constructed during the audit period and opened to traffic in November 2020. This condition can be closed out.</p>		NO ACTION REQUIRED	NO ACTION REQUIRED
NC9	Schedule 4 Condition 3	<p>As soon as practicable after obtaining monitoring results showing:</p> <p>(a) An exceedance of the relevant criteria in schedule 3, the Proponent shall notify the affected landowner in writing of the exceedance, and provide regular monitoring results to each of these parties until the projects is complying with the relevant criteria again; and</p> <p>(b) An exceedance of the relevant air quality criteria in schedule 3, the Proponent shall send a copy of:</p> <ul style="list-style-type: none"> <li>- The NSW Health fact sheet entitled "mine Dust and You" (as may be updated from time to time); and</li> </ul> <p>The air quality monitoring data, in an appropriate format so that a medical practitioner can assist the resident in making an informed decision on the health risks associated with occupation of the property to the landowner/s and/or existing tenants of the land.</p>	Non-Compliant (Low Risk)	<p>(a) <b>Non-compliant</b> - A blast on the 21 August 2019 exceeded the limit of 120 dBL. A recording of 123dBL was recorded at Wilderoi East. Verbal notification was provided to landowners. However, this was not notified to EPA and residents until 28 August. The DPIE and EPA issued notices for the non-reporting.</p> <p>No reportable dust exceedances were recorded in the audit period.</p>	<p><b>NC REC:</b> Implement changes to the TARP notifications system to distinguish "triggers" from "exceedances" so that reportable exceedances are not missed.</p>	<p>The TARP notification system will be revised to distinguish between 'triggers' and 'exceedances'.</p>	01/08/2021
NC10	Schedule 5 Condition 4	<p>"By the end of March each year, the Proponent shall review the environmental performance of the project for the previous calendar year to the satisfaction of the Secretary. This review must:</p> <p>(a) describe the development (including any rehabilitation) that was carried out in the past calendar year, and the development that is proposed to be carried out over the current calendar year;</p> <p>(b) include a comprehensive review of the monitoring results and complaints records of the project over the past year, which includes a comparison of these results against the:</p> <ul style="list-style-type: none"> <li>relevant statutory requirements, limits or performance measures/criteria;</li> <li>monitoring results of previous years;</li> <li>and relevant predictions in the EA;</li> </ul> <p>(c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;</p> <p>(d) identify any trends in the monitoring data over the life of the project;</p> <p>(e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and</p> <p>describe what measures will be implemented over the next year to improve the environmental performance of the project."</p>	Administrative Non-Compliance	<p>"Annual reviews for 2017, 2018 and 2019 were provided. They are also available on the BCOP website. Each were submitted to DPIE prior to the end of March.</p> <p>A) Rehabilitation details are provided in Section 8 of the Annual Review</p> <p>b) Monitoring results and comparison with performance are included in Section. 4. Complaints are summarised in Section 7.3</p> <p>c) non-compliances are summarised in Section 5</p> <p>d) trends in monitoring are included in Section 4. As noted in the previous audit, while long term trends associated with groundwater are presented in the annual reviews, there is little information relating to longer terms trends for air quality, surface water and noise over the life of mine as required by this condition.</p> <p>e) discrepancies against predictions (as relevant) are covered in Section 4</p> <p>next years activities and improvements are included in section 5 and 9"</p>	<p><b>Improvement REC:</b> Include additional information in the annual reviews regarding longer term trends particularly in terms of surface water, noise and air quality</p>	<p>BCOP will include additional information in the annual reviews regarding longer term trends particularly in terms of surface water, noise and air quality.</p>	Annual Review 2021
NC11	Schedule 5 Condition 5	<p>"Within 3 months of the submission of:</p> <p>(a) an annual review under condition 4 above;</p> <p>(b) an incident report under condition 8 below;</p> <p>(c) an audit under condition 10 below; and</p> <p>(d) any modification to the conditions of this approval,</p>	Administrative Non-Compliance	<p>"It is acknowledged that BCOP has been progressively working on updating management plans for several years with revised versions submitted to department.</p> <p>Management plans and strategies have been updated over</p>	<p><b>Improvement REC:</b> Prepare a document review register to evidence dates when documents are reviewed. Register should identify if any changes are identified as being required.</p>	<p>BCOP will create a register to capture and track details of when documents are updated including the review and revision of management plans and relevant supporting documents.</p>	01/07/2021

		<p>the Proponent shall review the strategies, plans, and programs required under this approval.</p> <p>Where this review results in revisions to any such document, then within 4 weeks of the completion of the revision, unless the Secretary agrees otherwise, the revised document must be submitted to the Secretary for approval."</p>		the last three years with the exception of the CHMP which is dated November 2016. "																																																																					
NC12	Schedule 5 Condition 8	The Proponent shall notify, at the earliest opportunity, the Secretary and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the project, the Proponent shall notify the Secretary and any other relevant agencies as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.	Non-Compliant (Low Risk)	This exceedance was reported to DPIE on 28 August. BCOPL was issued with a warning letter from DPIE on 18 October 2019 for not reporting the blast overpressure exceedance within seven days of the incident. Notification of the exceedance was sent via text and email but was originally missed. This is attributable to the amount of trigger text messages which were received, particularly under the old system.	<b>NC REC:</b> Implement changes to the TARP notifications system to distinguish "triggers" from "exceedances" so that reportable exceedances are not missed.	The TARP notification system will be revised to distinguish between 'triggers' and 'exceedances'.	01/08/2021																																																																		
NC13	9	Boggabri Coal will manage its blasting practices such that the recommended DECCW guidelines, existing at the time of approval; will be met at all privately owned receivers.	Non-Compliant (Low Risk)	As reported in the 2019 Annual Review, a blast fired on 21 August 2019 recorded an airblast overpressure of 123 dBL exceeding the 120dBL criteria. This exceedance was attributed to a short- term fluctuation in the upper air wind conditions that could not have been reasonably foreseen.	<b>NC REC:</b> Ensure blasts are undertaken under appropriate weather conditions. Delays to blasts should be implemented if required based on real time weather data review.  <b>NC REC:</b> Implement changes to the TARP notifications system to distinguish "triggers" from "exceedances" so that reportable exceedances are not missed.	Blasts will only be undertaken during appropriate weather conditions. Delays will be implemented if required based on weather conditions in accordance with the Blast Management Plan  The TARP notification system will be revised to distinguish between 'triggers' and 'exceedances'.	01/08/2021																																																																		
NC14	P1.3	<p>The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.</p> <table border="1"> <thead> <tr> <th colspan="3">Water and land</th> </tr> <tr> <th>EPA Method</th> <th>Type of Monitoring Point</th> <th>Location Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Wet weather discharge</td> <td>Wet weather discharge</td> <td>Wet weather discharge</td> </tr> <tr> <td>2</td> <td>Discharge water quality monitoring</td> <td>Discharge water quality monitoring</td> <td>Discharge water quality monitoring</td> </tr> <tr> <td>3</td> <td>Wet weather discharge</td> <td>Wet weather discharge</td> <td>Discharge point from wastewater treatment plant (WWTP) located on the map titled Plan No. 1 EPL, Boundary and Environmental Monitoring locations dated 26.6.16. 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(DIOC/18/09113)	Administrative Non-Compliance	<p>'Review of "EPL Boundary and Environmental Monitoring Locations" figure confirm locations of each EPA monitoring ID number.</p> <p>There was no water discharge events in 2017 to 2019 therefore sampling was not triggered. In February 2020 there was one discharge event. Sampling was undertaken at SW1, SW2 and SD6.</p> <p>Groundwater bores 2102 and 2103 were not monitored in 2018 and 2019 due to damage of the bore casing. Monitoring at 2104 and 2105 was not undertaken as they were not accessible and MW6 was not monitored as it was blocked.</p>	<b>NC REC:</b> Continue to liaise with EPA regarding EPL variation to ensure that monitoring points in EPL align with those utilised by the site.	BCOP will continue to liaise with EPA regarding EPL variation to ensure that monitoring points in EPL align with those utilised by the site.	01/08/2021
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NC15	L4.1	The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	Non-Compliant (Low Risk)	<p>'As reported in the 2019 Annual Review, a blast fired on 21 August 2019 recorded an airblast overpressure of 123 dBL exceeding the 120dBL criteria. This exceedance was attributed to a short- term fluctuation in the upper air wind conditions that could not have been reasonably foreseen.</p> <p>An incident report was prepared which concluded that: Blast design investigations indicate that tie in and firing conditions of the blast would ordinarily result in basic blast emission of less than 115dBL and that 123dBL can only be explained by the effects of meteorology.</p> <p>This exceedance was reported to DPIE on 28 August. BCOPL was issued with a warning letter from DPIE on 18 October 2019 for not reporting the blast overpressure exceedance within seven days of the incident. Notification of the exceedance was sent via text and email but was originally</p>	<b>NC REC:</b> Ensure blasts are undertaken under appropriate weather conditions. Delays to blasts should be implemented if required based on real time weather data review.  <b>NC REC:</b> Implement changes to the TARP notifications system to distinguish "triggers" from "exceedances" so that reportable exceedances are not missed.	Blasts will only be undertaken during appropriate weather conditions. Delays will be implemented if required based on weather conditions in accordance with the Blast Management Plan  The TARP notification system will be revised to distinguish between 'triggers' and 'exceedances'.	01/08/2021																																																																		

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NC16	M2.2	<p>Air Monitoring Requirements</p> <p>POINT 24,25,26</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Particulates - Deposited Matter</td> <td>grams per square metre per month</td> <td>Continuous</td> <td>AM-19</td> </tr> </tbody> </table> <p>POINT 45</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>PM10</td> <td>micrograms per cubic metre</td> <td>Every 6 days</td> <td>AM-18</td> </tr> </tbody> </table>	Pollutant	Units of measure	Frequency	Sampling Method	Particulates - Deposited Matter	grams per square metre per month	Continuous	AM-19	Pollutant	Units of measure	Frequency	Sampling Method	PM10	micrograms per cubic metre	Every 6 days	AM-18	Administrative Non-Compliance	In the 2019 - 2020 annual return sampling at three of the HVAS was not undertaken as private residences requested urgent removal of the monitoring units.	<b>NC REC:</b> Continue to liaise with EPA regarding EPL variation to ensure that monitoring points in EPL align with those utilised by the site.	BCOP will continue to liaise with EPA regarding EPL variation to ensure that monitoring points in EPL align with those utilised by the site.	01/08/2021																																																																																
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NC18	M2.3	<p>POINT 36,38,39,41</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Conductivity</td> <td>microsiemens per centimetre</td> <td>Quarterly</td> <td>In situ</td> </tr> <tr> <td>pH</td> <td>pH</td> <td>Quarterly</td> <td>In situ</td> </tr> </tbody> </table>	Pollutant	Units of measure	Frequency	Sampling Method	Conductivity	microsiemens per centimetre	Quarterly	In situ	pH	pH	Quarterly	In situ	Administrative Non-Compliance	There was no sample undertaken at location 39 for three out of the four quarters in the 2017 - 2018 reporting period. The 2017-2018 annual return also identified that samples were not taken from sites 19 and 20 but these have subsequently been removed from the EPL.	<b>NC REC:</b> Continue to liaise with EPA regarding EPL variation to ensure that monitoring points in EPL align with those utilised by the site.	BCOP will continue to liaise with EPA regarding EPL variation to ensure that monitoring points in EPL align with those utilised by the site.	01/08/2021																																																																																				
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NC19	R2.2	The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.	Administrative Non-Compliance	'As reported in the 2019 Annual Review, a blast fired on 21 August 2019 recorded an airblast overpressure of 123 dBL exceeding the 120dBL criteria. This exceedance was attributed to a short- term fluctuation in the upper air wind conditions that could not have been reasonably foreseen.	<b>NC REC:</b> Implement changes to the TARP notifications system to distinguish "triggers" from "exceedances" so that reportable exceedances are not missed.	The TARP notification system will be revised to distinguish between 'triggers' and 'exceedances'.	01/08/2021																																																																																																
NC20	4	<p>(a) The lease holder must lodge Environmental Management Reports (EMR) with the Director-General annually or at dates otherwise directed by the Director- General.</p> <p>(b) The EMR must:</p> <ul style="list-style-type: none"> <li>(i) report against compliance with the MOP;</li> <li>(ii) report on progress in respect of rehabilitation completion criteria;</li> <li>(ii) report on the extent of compliance with regulatory requirements; and</li> </ul> <p>have regard to any relevant guidelines adopted by the Director-General.</p>	Administrative Non-Compliance	<p>The site annual reviews are prepared to meet this condition. Annual reviews are prepared for the site for the period of 1 January to 31 December.</p> <p>All Annual Reviews for audit period are signed and dated prior to end of March. Also sighted submission confirmation of submission for each year.</p> <p>The annual reviews generally cover these requirements.</p> <p>However, progression towards rehabilitation completion criteria is only mentioned with regard to the species richness analogue benchmark.</p> <p>Rehabilitation areas should be tracked against the phases in the MOP with evidence provided to justify whether the rehabilitation has met the rehabilitation objectives of that phase and domains.</p> <p>It is noted that the Resources Regulator has recently released proposed amendments to the rehabilitation compliance and reporting requirements</p>	<p><b>NC REC:</b> Future Annual Reviews must report on progress in respect of rehabilitation completion criteria.</p> <p><b>NC REC:</b> Review rehabilitation monitoring process in line with the Resources Regulator Annual Rehabilitation Report guidance (<a href="http://www.resourceregulators.nsw.gov.au/_data/assets/pdf_file/00171262330/Form-And-way-Annual-rehabilitation-report-and-forward-program-for-large- mines.pdf">http://www.resourceregulators.nsw.gov.au/_data/assets/pdf_file/00171262330/Form-And-way-Annual-rehabilitation-report-and-forward-program-for-large- mines.pdf</a>) to ensure that progress against completion criteria is completed as required.</p>	<p>BCOP will report on progress in respect of rehabilitation completion criteria in future Annual Reviews.</p> <p>BCOP will review the rehabilitation monitoring process in line with the Resources Regulator Annual Rehabilitation Report guidance (<a href="http://www.resourceregulators.nsw.gov.au/_data/assets/pdf_file/00171262330/Form-And-way-Annual-rehabilitation-report-and-forward-program-for-large- mines.pdf">http://www.resourceregulators.nsw.gov.au/_data/assets/pdf_file/00171262330/Form-And-way-Annual-rehabilitation-report-and-forward-program-for-large- mines.pdf</a>) to ensure that progress against completion criteria is completed as required.</p>	2021 Annual Review																																																																																																
NC21	10	<p><b>(a) Ground Vibration</b></p> <p>The lease holder must ensure that the ground vibration peak particle velocity generated by any blasting within the lease area does not exceed 10 mm/second and does not exceed 5 mm/second in more than 5% of the total number of blasts over a period of 12 months at any dwelling or occupied premises as the case may be, unless determined otherwise by the Department of Environment, Climate Change and Water.</p> <p><b>(b) Blast Overpressure</b></p> <p>The lease holder must ensure that the blast overpressure noise level generated by any blasting within the lease area does not exceed 120 dB (linear) and does not exceed 115 dB (linear) in more than 5% of the total number of blasts over a period of 12 months, at any dwelling or occupied premises, as the case may</p>	Non-Compliant (Low Risk)	A blast on the 12 August 2019 exceeded the limit of 120 dBA. A recording of 123dBA was recorded at Wilberoi East. Landowners were verbally notified and notification was provided to DPIE as per PA 09_0182	<b>NC REC:</b> Ensure blasts are undertaken under appropriate weather conditions. Delays to blasts should be implemented if required based on real time weather data review.	Blasts will only be undertaken during appropriate weather conditions. Delays will be implemented if required based on weather conditions in accordance with the Blast Management Plan	01/08/2021																																																																																																

		be, unless determined otherwise by the Department of Environment, Climate Change and Water.				
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Reference	Schedule and Condition Number	Condition	Compliance status	Evidence Collected	Recommendation	Proposed action	Target date completion
<b>Project Approval - Schedule 3, Conditions 39-54 (BIODIVERSITY MATTERS)</b>							
NC1 (Biodiversity Compliance Audit)	Schedule 3, Condition 54	The Proponent shall prepare a Eucalyptus Forestry Plantation Offset Strategy to the satisfaction of Forests NSW, within 12 months of the date of this approval. The Forestry Plantation Offset Strategy shall provide at least a minimum 168 ha plantation area (as committed in the EA), or alternative as agreed by Forests NSW. The Strategy shall identify proposed funding and management arrangements for the development and maintenance of the plantation offset. If there is a dispute over these requirements, either party may refer it to the Secretary for resolution, whose decision shall be final.	Non-compliance	Boggabri Coal have provided Umwelt with information that shows evidence of progress being made on this strategy. As of November 2020 Boggabri Coal have provided Forestry NSW with a draft strategy. Evidence has been provided that Forestry NSW does not see benefit in the strategy proposed by Boggabri Coal.	It is recommended that an extension to this approval condition is sought. It is recommended that, together with Forests NSW, this strategy is promptly finalised to the satisfaction of the relevant parties.	BCOP will continue to consult with Forests NSW to seek achieve their satisfaction.	01/12/2021

### Improvement Recommendations

Rec #	Aspect	Recommendation	Proposed response	Target Completion Date
Improvement REC 1	Blasting	Recommend for drone footage to continue for longer so that future complaints may be verified to determine whether blast fume did remain and travel off site at a distance.	Drone footage will be extended beyond the initial blast to record more of the blast cloud to assist with determining whether blast fume did remain and travel off site at a distance.	31/3/21
Improvement REC 2	Noise Management Plan	Update the Noise Management Plan to reflect new TARPs developed since the transition to Teledata real time system.	The next revision of the noise management plan will include the revised TARPs.	01/08/2021
Improvement REC 3	Dust	Regularly include discussion around dust impacts in morning briefings and make EPA Dust Handbook available to all operators. Empower operators to contact OC to request water cart or mitigation if dust generation is observed.	The EPA dust handbook will be made available at the morning briefings. During the prestart information session dust impacts will be discussed and operators reminded to call up OCE and request water carts when required.	Ongoing
Improvement REC 4	Weed management	Undertake weed management on topsoil stockpiles to mitigate risk of weed infestation to rehabilitation areas.	Periodic spraying and management of weeds in topsoil stockpiles will be undertaken as part of ongoing management of weeds and pests on site.	Ongoing
Improvement REC 5	Surface water management	Undertake appropriate investigations to determine how requirements for 1 GL air capacity can be retained following mining through of MW5.	The long term mine planning team is developing options to ensure adequate air capacity and water storage is planned and provided prior to MW5 being mined through.	Ongoing
Improvement REC 6	EPL	Vary the EPL in consultation with EPA to align with the appropriate borehole locations and remove those that have been mined through.	BCOP is continuing to liaise with EPA regarding EPL variation to ensure that monitoring points in EPL align with those utilised by the site.	01/08/2021
Improvement REC 7	Heritage	Implement the outstanding recommendations from the 2017 Audit as reported in the 2019 Annual Review in the updated CHMP.	The CHMP is currently being revised and recommendations will be addressed in the revision.	01/07/2021
Improvement REC 8	Heritage	Incorporate the recommended improvements from the OEH into the revised CHMP.	The CHMP is currently being revised and recommendations will be addressed in the revision.	01/07/2021
Improvement REC 9	Rehabilitation	Undertake further investigations to confirm that the proposed "rice paddy" final landform meets this development consent condition of "constructed landforms drain to the natural environment" and the MOP rehabilitation objective of creating a stable free draining landform.	Investigation in landform design will be undertaken to confirm conformance with development consent.	01/07/2021
Improvement REC 10	Rehabilitation	Undertake additional weed management in rehabilitation areas and repairs to erosion / scouring as required.	Periodic spraying and management of weeds in rehabilitation areas will be undertaken as part of ongoing management of weeds and pests on site.	Ongoing
Improvement REC 11	Rehabilitation	Consider cover crops and/or hydromulch to assist with stabilisation in tubestock areas until tubestock takes off and ground cover increases.	A review of the 2020 tree planting and rehabilitation program will be undertaken to identify what has worked well and areas for improvement. The review consider the use of cover crops and/or hydromulching to assist with stabilisation.	01/08/21
Improvement REC 12	Annual review	Include additional information in the annual reviews regarding longer term trends particularly in terms of surface water, noise and air quality	BCOP will include additional information in the annual reviews regarding longer term trends particularly in terms of surface water, noise and air quality.	2021 Annual Review

Improvement REC 13	Management plans	Prepare a document review register to evidence dates when documents are reviewed. Register should identify if any changes are identified as being required.	BCOP will create a register to capture and track details of when documents are updated including the review and revision of management plans and relevant supporting documents.	01/06/21
Improvement REC 14	Real time monitoring data	Include the daily operational response information in the real time summary report available on the website to evidence to the public that operational changes are made.	A review of information provided on the website regarding operational responses to conditions will be undertaken.	01/06/21
Improvement REC 15	WAL reporting	It is recommended that the Annual Review includes additional information to detail the amounts of water in the account at the start of the accounting period and to provide further justification, transparency and evidence that the total water extraction remains within the total allowed allocations.	The information provided in the Annual Review on water allocations will be reviewed.	31/03/21

## Biodiversity Improvement Recommendations

	Biodiversity Audit recommendations for continual improvement	Response	Target Completion Date
1	Recommendations to aid the continual improvement of the site:	A trial of selectively thinning eucalyptus in the more advanced and dense rehabilitated areas will be undertaken. This will help to determine if such practices and may stimulate growth of the remaining flora and encourage greater species diversity.	December 2021
	<ul style="list-style-type: none"> <li>• Trial some thinning of dense eucalypts in woodland rehabilitation to stimulate the growth of those remaining and also to stimulate general flora species diversity and establishment</li> </ul>		
	<ul style="list-style-type: none"> <li>• Perform remediation works in established rehabilitation areas affected by erosion</li> </ul>	Areas affected by erosion will be remediated.	December 2021
	<ul style="list-style-type: none"> <li>• Opportunities for rehab planting design improvements/trials</li> </ul>	Rehab planting design improvements/ trials will be incorporated into future rehabilitation areas.	December 2024
	<ul style="list-style-type: none"> <li>• Erect nest boxes over rehabilitation and Biodiversity Offset Areas (BOAs)</li> </ul>	Installation of nest boxes in the rehabilitation area and the BOA's will commence in 2021	Commence 2021
	<ul style="list-style-type: none"> <li>• Finalise placement of salvaged habitat (logs) across BOAs</li> </ul>	A plan will be developed for the final placement of salvaged habitat logs across the BOAs.	December 2021
2	<ul style="list-style-type: none"> <li>• Ensure soil storage stockpiles are maintained at heights no greater than 3 m (as per management plan)</li> </ul>	Soil storage stockpiles will be managed in accordance with the management plan.	Ongoing
	Recommendations regarding the inadvertent understorey over clearing cleared area:	Regular inspection of the IUO area will be undertaken to detect changes.	Ongoing
	<ul style="list-style-type: none"> <li>• Regular walkover inspections to detect changes</li> </ul>		
	<ul style="list-style-type: none"> <li>• Ecological monitoring to assess the development of understorey vegetation and weeds</li> </ul>	Ecological monitoring to assess the development of understorey vegetation will be undertaken during inspection.	Ongoing
	<ul style="list-style-type: none"> <li>• Erosion areas be appropriately remediated</li> </ul>	Remediation of eroded areas will be undertaken as required.	Ongoing
	<ul style="list-style-type: none"> <li>• Ensure signage is effective.</li> </ul>	Signage will be checked and replaced and or moved to ensure it remains effective.	Ongoing