



Mr Gary Mulhearn  
Environment & Community Manager  
Austar Coal Mine Pty Ltd  
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Dear Mr Mulhearn

**Austar Coal Mine  
Extraction Plan Longwalls B4 – B7 Approval**


I refer to the Extraction Plan dated 14 September 2017 for Longwalls B4-B7 at the Austar Coal Mine, submitted in accordance with condition 3A of Schedule 3 of development consent DA 29/95 following approval of Modification 7.

The Department has reviewed the Extraction Plan and its sub-plans and is satisfied that they generally meet the relevant requirements of the development consent. The Department also acknowledges that the Division of Resources and Geoscience (DRG) has confirmed that it is satisfied with the sub-plans submitted in accordance with conditions 3A(d) and 4 of Schedule 3 of the development consent.

Accordingly, the Secretary's nominee approves the Extraction Plan, subject to the requirements in **Attachment A**.

Please note the requirements under condition 12 of Schedule 5 of DA 29/95 to make copies of all approved plans, programs and strategies publicly available. If you wish to discuss this matter further, please contact Megan Dawson on 9274 6391.

Yours sincerely

  
Howard Reed *20.9.17*  
**Director Resource Assessments**  
as nominee for the Secretary

## Attachment A

### Austar Coal Mine DA 29/95 – Extraction Plan B4-B7 DPE Comments – 20 September 2017

DA29/95 Condition 3A, Schedule 3	Satisfactory (Yes/No)	Comment	Action Required
3A. The Applicant must prepare an Extraction Plan for all second workings in the active mining areas to the satisfaction of the Secretary. This plan must:	-	A final Extraction Plan (EP) for Longwalls B4-B7 was submitted to the Department on 18 September 2017.  The EP applies to the Longwalls B4-B7 extraction area, with the exception of the WMP and the Biodiversity Management Plan (BMP), which apply to the combined B1-B3 and B4-B7 extraction areas.	Nil
(a) be prepared by a team of suitably qualified and experienced experts whose appointment has been endorsed by the Secretary, and be approved by the Secretary prior to the commencement of any second workings covered by the Extraction Plan;	Yes	Team endorsed by the Department on 11 August 2017.	Nil
(b) include a detailed plan for the second workings, which has been prepared to the satisfaction of DRG, and provides for adaptive management;	Yes	The EP includes graphical plans of the B4-B7 longwalls including workings and dimensions, surface features, geological and seam data, mining titles, geological log and monitoring survey plan.  On 11 September 2017, DRG provided a letter stating that it was not in a position to express satisfaction of the detailed plans due to its regulatory role.	Nil
(c) include detailed plans of any associated surface construction works;	N/A	The EP associated with Longwalls B4-B7 does not involve any surface construction works.	Nil
(d) include the following to the satisfaction of DRG: <ul style="list-style-type: none"> <li>• a coal resource recovery plan that demonstrates effective recovery of the available resource;</li> </ul>	Yes	A Coal Resource Recovery Plan (CRRP) (dated 13 September 2017) is included at Appendix K of the EP.  On 6 September 2017, DRG provided a letter stating its satisfaction with the CRRP. Section 3.2.2 of the CRRP references this letter.	Nil
<ul style="list-style-type: none"> <li>• predictions of the subsidence effects and subsidence impacts of the proposed second workings, incorporating any relevant information that has been obtained since preparation of EA (MOD 6); and</li> </ul>	Yes	A Subsidence Predictions and Impact Assessment (SIA) (June 2017) prepared by Mine Subsidence Engineering Consultants (MSEC) is included in Appendix C of the EP.  The SIA provides revised subsidence predictions based on slightly shortened longwall lengths for LWs B2 and B3 and a modified mine sequence (ie. mining of Longwall B1 after B7, instead of after Longwall B3).  When compared to the subsidence impacts assessed as part of MOD 7, MSEC indicates that the predicted subsidence parameters slightly increase for some features and slightly decrease for other features. However, the overall levels of predicted movements are not predicted to change. The SIA relies on the inspection, monitoring and reporting recommendations made in the SIA prepared as part of the MOD 7 EA (April 2017).  The SIA is considered adequate. The revised subsidence predictions are similar	Nil

DA29/95 Condition 3A, Schedule 3	Satisfactory (Yes/No)	Comment	Action Required
		<p>to previous predictions approved as part of the MOD 7 EA and would not result in any significant additional subsidence impacts.</p> <p>On 6 September 2017, DRG provided a letter stating its satisfaction with the subsidence predictions.</p>	
<ul style="list-style-type: none"> <li>• a Subsidence Monitoring Program to: <ul style="list-style-type: none"> <li>- monitor subsidence effects and subsidence impacts on land;</li> <li>- validate the subsidence predictions; and</li> <li>- analyse the relationship between the subsidence effects and subsidence impacts of the proposed second workings and any ensuing environmental consequences.</li> </ul> </li> </ul>	Yes	<p>A Subsidence Monitoring Program (SMP) (June 2017) is included in Appendix J of the EP.</p> <p>Additional subsidence monitoring proposed includes a continuation of the Longwall B1-B3 cross line over Longwall B4-B7 and the Sandy Creek Road monitoring line. No clear figure indicating the location of the extended lines is provided.</p> <p>SMP provides a summary of subsidence monitoring for specific features, and indicates that the full details of monitoring are provided in the PSMP and BFMP. These plans have been updated to describe the timing for completing the individual plans for specific features (ie. prior to potential subsidence impacts).</p> <p>On 6 September 2017, DRG provided a letter stating its satisfaction with the SMP.</p>	See below
<p>(e) include a:</p> <ul style="list-style-type: none"> <li>• Water Management Plan, which has been prepared in consultation with OEH and DPI-Water, to monitor and manage the environmental consequences of second workings on water resources (including drainage, flooding, ponding and alluvial aquifers);</li> </ul>	Yes	<p>A Water Management Plan (WMP) (14 September 2017) is included in Appendix E of the EP. The WMP applies to the longwall extraction area for B1-B3, as well as B4-B7.</p> <p>Consultation with OEH and DPI-Water undertaken as part of MOD 7 assessment process. The Department has accepted this approach (letter dated 11 August 2017).</p> <p>WMP incorporates additional monitoring of surface and groundwater in the B4-B7 extraction area, including a new groundwater monitoring location over B6. As requested by DPI-Water, the data logger at this location will be capable of monitoring water level on a continuous (daily) basis (Section 5.2). EC will be monitored at the same frequency as the existing program (which is monthly).</p> <p>Channel stability monitoring is proposed in an area of Quorrobolong Creek. As requested by the Department, this monitoring has been revised to include visual inspection, supported by photographic recording.</p> <p>A TARP is included in Section 6 of the WMP. As requested by DPI-Water, the TARP has been updated to address potential exceedances of license entitlements.</p>	In the final document, update Appendix A of the SMP to reflect the additional/amended water monitoring and frequency in this WMP
<ul style="list-style-type: none"> <li>• Biodiversity Management Plan, which has been prepared in consultation with OEH, to monitor and manage the potential</li> </ul>	Yes	<p>A Biodiversity Management Plan (BMP) (13 September 2017) is included in Appendix G of the EP. The BMP applies to the longwall extraction area for B1-B3, as well as B4-B7.</p>	Nil

DA29/95 Condition 3A, Schedule 3	Satisfactory (Yes/No)	Comment	Action Required
<p>environmental consequences of second workings on aquatic and terrestrial flora and fauna, with a specific focus on threatened species and endangered ecological communities;</p>		<p>Consultation with OEH undertaken as part of MOD7 assessment process. The Department has accepted this approach (letter dated 11 August 2017).</p> <p>The Ecological Assessment for MOD 7 (Umwelt, 2017) indicates that there is the potential for ponding above the B4-B7 extraction area. This potential impact has now been reflected in Table 4.1 of the BMP.</p> <p>Four additional biodiversity monitoring sites are proposed over the B4-B7 extraction area. Monitoring includes floristic, condition assessment, habitat assessment and photo monitoring for terrestrial flora and fauna. The Department accepts that historic monitoring since 2010 has shown no adverse impact on water quality, riparian vegetation or stream condition and that aquatic monitoring is not necessary at this time. It should be noted that if any future monitoring indicates adverse impact on any of these features, then the Department may require aquatic monitoring as part of the BMP.</p> <p>A TARP is included in Section 6 of the BMP. As requested by OEH, the TARP requires the identification of suitable offsetting mechanisms if adverse impacts to threatened species, populations, habitat and/or EEC are identified which may not be remediated.</p>	
<ul style="list-style-type: none"> <li>Land Management Plan, to monitor and manage the potential environmental consequences of second workings on steep slopes and land in general;</li> </ul>	Yes	<p>A Land Management Plan (LMP) (14 September 2017) is included in Appendix F of the EP.</p> <p>The LMP (Section 5) indicates that inspections of the landform condition would be undertaken on monthly basis within the active subsidence area (approximately 100m in front and 400m behind the longwall face position). The LMP also commits to additional inspections at the request of landowners. This is considered adequate.</p>	Nil
<ul style="list-style-type: none"> <li>Built Features Management Plan, which has been prepared in consultation with the owner of the relevant feature, to monitor and manage the potential environmental consequences of second workings, including flooding related impacts, on any built features or access to any built features;</li> </ul>	Yes (conditional)	<p>A Built Features Management Plan (BFMP) (15 September 2017) is included in Appendix H of the EP.</p> <p>Consultation with the owners of specific built features was undertaken during the assessment process for Longwalls B4-B7, but no specifics in terms of agreements, monitoring or management of features is provided.</p> <p>The BFMP is a generic document outlining the process for preparing individual BFMPs as extraction progresses, in consultation with the relevant built features owners. The BFMP has been updated to provide an indication of the timing of longwall extraction and the preparation of the individual BFMPs (Section 3.2). The BFMP has also been updated to reflect the current status of consultation with property and infrastructure owners.</p>	Progressively submit individual BFMPs (prepared in consultation with the property/infrastructure owner) prior to subsidence effects occurring in the vicinity of the feature

DA29/95 Condition 3A, Schedule 3	Satisfactory (Yes/No)	Comment	Action Required
		<p>Individual features which may be impacted are listed in Table 3.2 and shown on Figure 4.</p> <p>On 6 September 2017, DRG provided a letter stating its satisfaction with the BFMP and the approach to progressively submit individual BFMPs for specific features.</p>	
(f) include a Public Safety Management Plan, which has been prepared in consultation with DRG, to ensure public safety in the mining area;	Yes (conditional)	<p>A Public Safety Management Plan (PSMP) (14 September 2017) is included in Appendix I.</p> <p>The PSMP is a generic document that outlines a high-level strategy to management public safety. It is Austar's intention that the public safety for infrastructure is described in the BFMPs in consultation with the private/infrastructure owners prior to subsidence impacts occurring. On 12 September 2017, DRG provided a letter stating its satisfaction with the PSMP and this approach.</p> <p>It is noted that a specific BFMP for Council roads already exists which addresses monitoring and management for Sandy Creek Road for previous panels. This will be updated prior to Longwall B4.</p>	As above
(g) the above plans must include a: <ul style="list-style-type: none"> <li>• detailed description of baseline data;</li> <li>• impact assessment criteria, including trigger levels for investigating any potentially adverse impacts;</li> <li>• program to undertake monitoring prior to, during and after undermining;</li> <li>• program to validate predicted levels of impacts;</li> <li>• detailed description of remediation, rehabilitation and/or compensation measures to be implemented, should adverse impacts occur; and</li> <li>• contingency plan to manage any unpredicted adverse impacts and their environmental consequences and to provide for adaptive management.</li> </ul>	Yes	<p>Baseline data included in relevant plans.</p> <p>TARPs included in each relevant plan and Appendix B of EP. TARPs include contingency measures in the event of exceedances.</p> <p>SMP includes review and validation of subsidence impacts.</p> <p>Post-mining monitoring included in the SMP.</p> <p>Remediation, rehabilitation and compensation measures (eg. offsets) included in WMP and BMP.</p>	Nil

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