New Acland Coal Mine Stage 3 project

Coordinator-General's change report No. 4 – amendment to stated conditions following Land Court (2021) proceedings

May 2022

COORDINATOR-GENERAL

Queensland Government

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1. Introduction

This change report has been prepared pursuant to section 35I of the *State Development and Public Works Organisation Act 1971* (Qld) (SDPWO Act) and provides an evaluation of proposed changes to the New Acland Coal Mine Stage 3 project (referred in this report as the project or stage 3 project) outlined in the change request submitted by New Acland Coal Pty Ltd (NAC) on 30 March 2022[1] (the change request). The change request specifies proposed changes to stated conditions to address recommendations of the Second Remitted Land Court Hearing decision in relation to the project, handed down on 17 December 2021[2] (Land Court (2021) Decision). The changes to stated conditions proposed in the change request and my evaluation of them are summarised in section 4 of this report.

This change report does not re-evaluate the project as a whole or revisit all the matters that have already been addressed in its assessment to date. Rather, this report considers the nature of the proposed changes under the change request and evaluates potential effects of the proposed changes on the project and the environment.

In making the evaluation, the following have been considered in accordance with section 35H of the SDPWO Act:

- the nature of the proposed change and its effects on the project
- the project as evaluated under the Coordinator-General's evaluation report on the environmental impact statement (EIS) dated December 2014[3] (2014 CGER) and the three Coordinator-General's change reports (CGCRs) including all required impact management and mitigation measures (collectively, the evaluated project)
- the environmental effects of the proposed change and its effects on the project
- the material mentioned in former section 35 of the SDPWO Act (the provision in effect for the preparation of the 2014 CGER, which continues to apply to the stage 3 project by virtue of section 197 of the SDPWO Act) to the extent it is considered relevant to the proposed change and its effects on the project.

As described in section 3.2 below, after receiving the change request and in accordance with section 35F of the SDPWO Act, I provided a copy of the change request to key stakeholders whom I considered may have been able to give comments or information to help me make the evaluation. I received responses from those stakeholders which have been carefully considered in making the evaluation.

As the change request refers to and seeks to address the recommendations of the Land Court (2021) Decision, it was necessary to consider the findings of the Land Court (2021) Decision in making the evaluation. This included considering the court's judgement and those documents submitted to the court by the parties including expert witness statements, submissions to the court and affidavits presented throughout proceedings which were provided to me either with the change request or in response to my referrals made under section 35F of the SDPWO Act. While I have considered the Land Court (2021) Decision, my evaluation of the change request is independent of and not confined by the recommendations made in the Land Court (2021) Decision.

This report prevails to the extent of any inconsistencies with the evaluated project to date.

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[1] New Hope Group, *Request to change a condition, New Acland Coal Mine Stage 3 Project*, March 2022, available at https://www.statedevelopment.qld.gov.au/coordinator-general/assessments-and-approvals/coordinated-projects/completed-projects/new-acland-coal-mine-stage-3-project/project-changes

[2] *New Acland Coal Pty Ltd v Oakey Coal Action Alliance Inc. & Ors (No 2)* [2021] QLC 44

[3] **https://www.statedevelopment.qld.gov.au/__data/assets/pdf_file/0019/13375/nacp-stage-3-eis-report.pdf**

2. About the project

2.1 The proponent

The proponent for the project is New Acland Coal Pty Ltd (NAC), a subsidiary of New Hope Corporation Limited, which is an Australian company. Both NAC and New Hope Corporation Limited are part of the New Hope Group.

NAC has operated the existing New Acland Coal Mine (existing project; stage 2 project) since 2002. The stage 2 project is a 5.2 million tonne per annum (mtpa) open cut coal mine active on mining leases (MLs) ML50170 and ML50216 and is regulated by environmental authority (EA) EPML00335713.

2.2 The project

The stage 3 project is located roughly 160 kilometres (km) west of Brisbane, 35 km north-west of Toowoomba and 14 km north-west of Oakey. The project is the expansion of the existing open-cut mine and proposes to produce up to 7.5 mtpa of thermal coal for an approximately 12 year period.

The key components of the project, as described in the 2014 CGER, include:

- mining in three new pits, namely, the Manning Vale West, Manning Vale East and Willeroo pits
- mining and out-of-pit dumps located on ML50216
- emplacement of two out-of-pit spoil dumps associated with the Manning Vale and Willeroo mine pits
- construction of a new eight kilometre long rail spur line and balloon loop on mining lease application (MLA) (infrastructure) 700002 from Jondaryan onto MLA50232
- construction of a new train load-out facility within MLA50232
- construction of a materials handling facility on ML50216
- upgrade of the existing coal handling preparation plant complex, run-of-mine and product coal stockpile areas and supporting infrastructure on ML50170
- relocation and potential upgrade of the current power supply for the mine operation and the local 11 kilovolt distribution system
- decommissioning of the existing mine's Jondaryan Rail Load-out Facility
- relocation and potential upgrade of the existing local telecommunication network.

Since the release of the 2014 CGER, three CGCRs have been prepared, approving various changes to the project or conditions of the project. Further information on the project and changes that have occurred since the project was originally approved in 2014 are detailed in the:

- CGCR 1 (noise) – dated 12 February 2019
- CGCR 2 (train load-out facility) – dated 17 September 2020
- CGCR 3 (stated conditions B3 and H40) – dated 29 September 2020.

These documents are available on the department's website at **www.statedevelopment.qld.gov.au/newacland**.

Capital expenditure and jobs

The approvals being sought for the stage 3 project would permit production of up to 7.5 mtpa of product coal, as described in the 2014 CGER. At this maximum scale, NAC indicated the project would cost approximately $896 million to develop and create 260 construction jobs and 435 operational jobs.

Citing current mine planning and economic conditions, NAC has advised they do not propose to produce above 5.1 mtpa, however production rates will be reassessed throughout the life of the project. At this reduced production rate, capital expenditure is estimated to be $556 million, and the project is expected to create 300 full-time equivalent (FTE) jobs during construction and 400 FTE jobs during operations. The change to capital expenditure and employment is predominantly due to:

- expansion of the existing coal handling and preparation plant no longer being required
- less work required for the materials handling facility
- less fleet required for production, maintenance and rehabilitation.

NAC confirms they have already invested approximately $137 million in preparation for the stage 3 project, including:

- certified rebuilds and major works on plant and equipment (trucks, dozer, excavator)
- development and installation of environmental performance monitoring systems
- re-routing of Telstra cabling and construction of additional access roads
- works on power reticulation and Jondaryan turnout
- installation and contract commitments relating to the Wetalla pipeline
- running of the Oakey office (now closed) and past employment of an expansion project team (24 persons).

2.3 Background to stated conditions and project litigation

Amendment to an existing environmental authority

A single EA is required to regulate all resource activities that are proposed to be carried out as a single integrated operation. Accordingly, NAC sought amendments to their existing stage 2 EA (EPML00335713) to include new mining activities on MLA50232 as part of the coordinated project declaration and subsequent evaluation process for the stage 3 project.

In accordance with the then section 150(c) (application documents for an EA mining activities) and former section 201 of the *Environmental Protection Act 1994* (Qld) (EP Act) (as in force 30 March 2013), an Environmental Management Plan (EM Plan) was required to be prepared and submitted to the administering authority (the then Department of Environment and Heritage Protection (DEHP)) before the draft EA would be released for public notification.

To support relevant consideration of their EA amendment application, NAC prepared a draft EM Plan for the project and submitted it to the Coordinator-General as part of the EIS process. The draft EM Plan specified the intended environmental management strategies, actions and procedures to reduce potential adverse environmental impacts and enhance any beneficial impacts. Amongst other things, it also specified monitoring locations, outlined reporting procedures and defined auditing requirements.

Ultimately, the EM Plan would be revised following the release of the 2014 CGER, operationalising the imposed and stated conditions contained within the evaluation and including revised mitigation measures to further reduce environmental impacts and ensure compliance during construction and operation of the project.

Recognising and reflecting the environmental framework in place at that time, the evaluation of the project was outcomes focussed and constraints-based in nature. Key potential environmental impacts from the project were to be regulated by way of environmental limits and thresholds, expressed by way of conditions contained within the 2014 CGER. Detailed management practices and specific locations of supporting mine infrastructure would be confirmed at a later time through submission of a revised EM Plan, preparation of a rolling Plan of Operations and in consultation with the administrating authority of the EA.

Stated conditions

Under the SDPWO Act, the Coordinator-General may condition coordinated projects to ensure potential impacts are properly managed. The Coordinator-General may state conditions in accordance with section 34D(3)(b) (formerly section 35(4)(b)) or section 35I(2) of the SDPWO Act) that must be attached to future approvals such as an EA, or a relevant planning approval.

Appendix 2 of the 2014 CGER prescribes stated conditions for the project's draft EA under the EP Act. Under section 205(2) of the EP Act, in deciding to approve an EA amendment application, the administering authority (Department of Environment and Science (DES)) must include on the draft EA the Coordinator-General's stated conditions set out in the 2014 CGER. In accordance with section 54E of the SDPWO Act, imposed conditions prevail to the extent of any inconsistency with stated conditions. Under section 205(4) of the EP Act, any other conditions imposed on the EA cannot be inconsistent with the Coordinator-General's stated conditions.

Accordingly, the 2014 CGER stated conditions were adopted in the project's draft EA (EPML00335713) issued by the then DEHP on 28 August 2015.

Litigation

Objections to the MLAs and NAC's EA amendment application were first referred to the Land Court on 14 October 2015 and were heard at the original objections hearing, where 39 individual objectors participated. Oakey Coal Action Alliance Inc. (OCAA) was represented by the Environmental Defenders Office (EDO). Litigation over the MLAs and EA amendment application continued for the following six years, involving multiple objectors and legal proceedings in the Land Court, Supreme Court, Court of Appeal and High Court. The legal challenges resulted in referral of the objections back to the Land Court for the Second Remitted Land Court Hearing. OCAA remained as the only active objector party. As a result of these proceedings, the MLAs and EA amendment application have not been granted to date.

A complete overview of the legal and approvals history of the project is provided in the change request.[4]

[4] New Hope Group, *Request to change a condition, New Acland Coal Mine Stage 3 Project*, March 2022, available at https://www.statedevelopment.qld.gov.au/coordinator-general/assessments-and-approvals/coordinated-projects/completed-projects/new-acland-coal-mine-stage-3-project/project-changes

On 17 December 2021, the Land Court (2021) Decision recommended that MLAs 700002 and 50232 and the associated EA amendment application be granted subject to a condition that the recommendation does not take effect unless and until:

- NAC applies to the Coordinator-General to amend the EA (EPML00335713) to account for the conditions as amended by the Land Court hearing and/or the reasons contained within the Land Court (2021) Decision
- the Coordinator-General amends the stated conditions
- DES incorporates the stated conditions (as amended by the Coordinator-General) in the draft EA.

If the above conditions are not fulfilled by 31 May 2022, or, if before that date the Coordinator-General decides not to amend those stated conditions, the Land Court's recommendation is for DES to refuse the application to amend the EA.

As stated above, the recommendations of the Land Court (2021) Decision are relevant to my evaluation of the change request, but do not confine my evaluation.

3. Change report process

3.1 Application

On 30 March 2022, NAC submitted a request to amend stated conditions for the stage 3 project to address recommendations of the Land Court (2021) Decision.

This request for project change is the fourth change request made in accordance with section 35C of the SDPWO Act for the project.

The request for project change addresses the requirements of section 35E of the SDPWO Act, in that the written application describes the proposed changes and their effect on the project, states reasons for the proposed changes and includes enough information about the proposed change and its effects on the project to allow me to make the evaluation. The reasons and details for the proposed changes are summarised below and detailed in the request for project change, which is publicly available at **www.statedevelopment.qld.gov.au/newacland**.

The change request seeks to:

- amend stated condition A2 and Figure 1 to provide certainty as to the spatial extent of mining
- amend stated condition A12 to supplement environmental complaints monitoring and reporting requirements
- amend stated conditions B1, B2, B3, B4, Table A and Figure 2 and introduce new stated conditions Ba, B5 and B6 in respect of air quality monitoring and management
- amend stated conditions D1, Table D1a, D2, D4 and D5 in respect of noise monitoring, reporting and emissions management
- amend stated conditions F10, Table F4, F15, F17 and F18 for management of surface water impacts
- make administrative and consequential amendments to stated conditions including defined terms.

3.2 Public notification

In considering the proposed changes and their effects on the project, I determined under section 35G(1) of the SDPWO Act that the proposed project changes did not require public notification. In making my decision, I considered the material provided by NAC in its change request and concluded:

- public notification would duplicate consideration of the amendments to the stated conditions undertaken throughout the Land Court hearings as well as consultation on the project to date
- the change request only pursued changes to stated conditions in accordance with the findings of the Land Court (2021) Decision and other administrative changes to support making those changes
- the proposed changes to stated conditions do not introduce new project elements, impact additional areas of land, introduce new impacts or increase the severity of impacts assessed during the EIS process
- the proposed changes would further contemporise conditions to reflect updated plans and strategies, and would further reduce the potential for the project to cause environmental harm and nuisance – therefore benefiting the community living in proximity to the mine
- the Land Court (2021) Decision did not include a recommendation regarding further public notification.

As noted above, after receiving the change request, and in accordance with section 35F of the SDPWO Act, I provided a copy of the change request to key stakeholders whom I considered may have been able to give comments or information to help me make the evaluation. This process allowed me to consult in a targeted manner with key stakeholders, including key State advisory agencies and the EDO on behalf of OCAA (the active objector in the objections hearing for the Land Court (2021) Decision and party to the other proceedings). Information and comments received from those parties throughout my evaluation have informed my considerations and ultimately the findings of this report.

4. Evaluation of the change request

4.1 Stated condition A2 and Figure 1 – disturbance footprint

Stated condition A2 is a critical condition in that it governs the disturbance footprint of the stage 3 project.

4.1.1 Proposed changes to spatial extent of mining condition

NAC requested an amendment to stated condition A2 as part of the change request. The change request summarises that the change would:

> *"…amend stated condition A2 and Figure 1 to provide certainty as to the spatial extent of mining following the Land Court Decision. This change will also impose a buffer from extraction and out of pit dump activities to minimise potential impacts on residents of the nearby rural town of Acland. Condition A2(c) also sets the limitations on other supporting infrastructure which is necessary for the mining activity and was contemplated in the EIS and AEIS…"*

It is clear that NAC did not intend to introduce any authorisation for new impacts or infrastructure in making the change request. This is reiterated a number of times in the change request, including at:

- page 10, which states "*Condition A2 does not authorise any new activities*"
- page 15, which notes:

  "*The types of supporting infrastructure were identified and assessed through the EIS and the AEIS. The Coordinator-General's Report considered supporting infrastructure and stated conditions for key elements. The environmental effects of such infrastructure were assessed as part of the Project's EIS and AEIS and the Coordinator-General's Report, as summarised in Appendix I. The specific inclusion of such infrastructure in condition A2(c) and the removal of the "indicative only" notation on Figure 1 provides an appropriate limit on the extent of supporting infrastructure. Condition A2 does not authorise any new activities or infrastructure.*"
- page 102, which notes that "*[t]he changes do not introduce any changes to the project itself and will not introduce new impacts or increase the severity of impacts*."
- page 193, which notes:

  "*Condition A2 is not intended to authorise new activities or infrastructure that was not identified in the EIS and AEIS, but rather clarifies the limitations on supporting infrastructure, by restricting it to minor infrastructure or infrastructure under the EA conditions or approved management plans or otherwise permitted by the administering authority. Condition A2 does not propose a change to the Project. It is inherent in the terms of the existing Coordinator-General's stated condition A2, with reference to a figure marked "Indicative Only" and other stated conditions that require supporting infrastructure, that a precise identification of the location of and size of disturbance areas for a limited range of supporting infrastructure was neither necessary nor appropriate*."

Stated condition A2 was the subject of detailed consideration in the Land Court (2021) Decision.

4.1.2 Evaluation of proposed amendments

In considering the amendments to stated condition A2 proposed in the change request, I carefully considered the level of certainty that all stakeholders should derive from any amendments I make to the stated conditions, as well as the modicum of flexibility reasonably required by NAC in developing the stage 3 project. I acknowledge and agree with Her Honour Member Stilgoe's statement in the Land Court (2021) Decision that:

> "*The challenge, of course, is to craft a condition that provides certainty for the public interest yet a modicum of flexibility for NAC.*"[5]

As noted above, I am satisfied that NAC did not intend to seek an amendment to stated condition A2 that would result in the authorisation of increased impacts or infrastructure when compared with the impacts and infrastructure assessed as part of the evaluated project and in the objections hearing for the Land Court (2021) Decision. I am also satisfied that NAC intended that if approved, the change request would otherwise give effect to the Land Court (2021) Decision.

However, I consider that the stated condition A2 as proposed by NAC would have created unnecessary ambiguity if approved in the form proposed.

As noted in the Land Court (2021) Decision "*NAC notes, and both DES and OCAA agree, that Figure 1 does not include ancillary infrastructure such as pipelines, water management infrastructure,*

[5] Land Court (2021) Decision at paragraph [129].

telecommunications, access tracks, flood protection levees and monitoring equipment".[6] I am satisfied that stated condition A2 should not be amended to allow for such ancillary infrastructure to be developed without any further consideration of potential impacts. As such, I have established a process to require that NAC inform DES of any land disturbance including for ancillary infrastructure, and where necessary, seek an amendment to the EA before causing disturbance.

I have amended stated condition A2 to ensure:

- certainty for nearby residents and the public interest by making it clear that mining activities are to occur generally in accordance with Figure 1
- the location and extent of land disturbance for infrastructure and resource activities are consistent with the disturbance footprints assessed as part of the evaluated project and considered throughout the Land Court proceedings
- an appropriate degree of flexibility to NAC in establishing the stage 3 project
- that DES, as the administering authority for the EP Act, has the opportunity to consider the location, nature and extent of any impacts generated from minor infrastructure that NAC proposes to develop over the life of the project and prior to any land disturbance occurring
- strict protection to Acland and the area surrounding Acland from highly impactful activities
- the most impactful infrastructure proposed as part of the stage 3 project (namely pits, slope batters and out of pit dumps) is limited to approximately 1,446 hectares on MLA50232 and approximately 123 hectares on ML50216, as that is the size and extent that has been assessed in the 2014 CGER
- appropriate control over impactful activities within rehabilitated areas of ML50216 and ML50170.

I have also revised Figure 1 to reflect the amendments I have made to stated condition A2 and account for other matters I have considered in making my evaluation. In preparing Figure 1, the following inclusions have been carefully considered and determined to be appropriate:

- extent of 'new mining areas' (marked in green) which contain mining disturbance areas associated with pits, slope batters and out of pit dumps. The extent aligns with the broader disturbance extent as illustrated in Figure 1 of the 2014 CGER
- addition of a 'Acland exclusion zone' to align with the Land Court (2021) Decision recommendation to limit mining activities by way of fixing a strict boundary, namely to the west of the township of Acland
- two 33 kilovolt electricity lines as proposed by NAC in the change request. I am satisfied that the electricity lines formed part of NAC's project description and have been adequately assessed in the EIS, AEIS and 2014 CGER
- new 'connection areas' marked in pink to allow for access to the proposed pit areas. Again, disturbance in this area have been adequately assessed in the EIS, AEIS and 2014 CGER and are separate to the 'new mining areas' depicted in Figure 1
- a notation alerting the reader that imposed conditions prevail to the extent of any inconsistency with stated conditions. Imposed conditions need to be considered by DES when undertaking compliance or addressing actions under stated condition A2, including for example imposed condition 15, which requires a Lagoon Creek Conservation Zone Management Plan to be prepared by NAC.

[6] Land Court (2021) Decision paragraph [111].

4.1.3 Conclusion

I consider stated condition A2 to be of critical importance. I have given careful consideration to:

- the nature of the proposed change to stated condition A2 and its effects on the project
- the evaluated project (including the EIS, Additional information to the EIS (AEIS) and the properly made submissions for it to the extent that I consider them to be relevant to the proposed change and its effects on the project)
- the environmental effects of the proposed change and its effects on the project
- the material provided to me in the change request, including the Land Court (2021) Decision, and in response to my referral of the proposed change to key stakeholders under section 35F of the SDPWO Act.

I have amended stated condition A2 such that it:

- ensures that the stage 3 project is developed generally in accordance with Figure 1 – Project overview to the stated conditions
- places controls on the installation of minor infrastructure to ensure impacts do not occur unless they have been considered and accepted by the administering authority of the EP Act
- establishes a strict exclusion zone around Acland
- establishes a strict exclusion zone around Lagoon Creek
- constrains the location and extent of areas to be disturbed for pits, slope batters and out of pit dumps to approximately 1,446 ha on MLA50232 and approximately 123 ha on ML50216, as that is the area that has been assessed for the evaluated project.

I am satisfied that my amendments to stated condition A2 and Figure 1 satisfy the recommendations in the Land Court (2021) Decision with respect to stated condition A2 and the spatial extent of the stage 3 project.

Accordingly, I approve the changes to stated condition A2 as set out at Appendix 2.

4.2 Stated condition A12 – environmental complaints and reporting

The 2014 CGER established stated condition A12 to ensure that the proponent's complaints and disputes resolution plan was effective for all phases of the project. The condition requires NAC to record all environmental complaints received about the mining activities, including complainant details, timing of complaint, reasons for the complaint, investigations undertaken, conclusions formed, actions taken and abatement measures implemented to resolve complaints, and the person responsible for resolving the complaint.

The change request proposes to amend stated condition A12 (stated condition A10 at Appendix 2 of this document) to require NAC to hold additional records concerning environmental complaints management (including records of any referrals of a complaint). Where consent of the complainant is obtained, details of the complaint recorded under the condition would be provided to the administering authority within 28 days of the action taken by NAC to resolve the complaint.

The change request describes that while the Land Court (2021) Decision did not recommend any specific change to stated condition A12 (stated condition A10 at Appendix 2), the proposed changes reflect the EA submitted to the Land Court by the Statutory Party (DES) which was accepted by NAC.

I am satisfied the proposed change is consistent with the intent of the 2014 CGER. The amendments would increase the project's accountability relevant to complaints and ensure that the administering authority (DES) has oversight of NAC's responses to complaints.

Accordingly, I approve the changes to stated condition A10 (formerly stated condition A12) as set out at Appendix 2.

4.3 Stated conditions – air quality

4.3.1 Proposed changes to air quality stated conditions

Stated condition B1

The change request proposes to amend stated condition B1 into two separate conditions:

- new stated condition Ba, which would require the EA holder to ensure that air emissions generated by mining activities do not cause the criteria in Table A – Air Quality Monitoring Requirements (herein referred to as Table A) to be exceeded at a sensitive place or commercial place, and confirms where air emissions for a sensitive place or commercial place must be measured
- amended stated condition B1 and Table A to reflect the current parameters and standards for air emission monitoring consistent with the National Environment Protection (Ambient Air Quality) Measure (NEPM (Air)) and the *Environmental Protection (Air) Policy 2019* (EPP (Air) 2019).

Stated conditions B3 and B4

The change request also proposes to amend stated condition B3 to reflect the position agreed by NAC and the Statutory Party (DES) during the Second Remitted Land Court Hearing regarding development, review and implementation of the Air Emissions Management Plan (AEMP).

The proposed condition would provide more specificity as to the qualifications of the appropriate person to develop the AEMP, require that the AEMP be implemented for all stages of mining, and specifies that the AEMP is to be submitted to the administering authority for review and comment:

- within three months of the grant of MLA50232 and MLA700002, and at intervals not exceeding two years thereafter; and
- prior to the EA holder producing more than 5.1 mtpa of product coal.

The change request describes that the proposed stated condition B4 would be consistent with the purpose of existing stated condition B3, which is to ensure a program for continuous improvements for the management of dust resulting from mining operations. Proposed condition B4 would include additional requirements for the AEMP, requiring the EA holder to incorporate a program of continuous improvement for the management of dust resulting from mining operations. Additional matters to be included in the AEMP include:

- a requirement that monitoring locations act as and continue to act as suitable representative sites for sensitive places (if there is no monitor at a particular sensitive place)
- PM_{10} trend monitoring at two locations to be specified in the AEMP

- a trigger action response plan (TARP) that requires NAC to investigate, mitigate and manage total suspended particulate (TSP) caused by mining activities at any sensitive place or commercial place when monitoring indicates exceedance of 80 micrograms per cubic metre over a 24-hour averaging time
- a forecasting system that provides daily predictions of upcoming meteorological conditions
- a protocol and register for the recording of requests and installation of first flush diverter systems
- a protocol for the transport of basalt material
- annual review of the AEMP including its adequacy and effectiveness in avoiding and minimising air emissions and dust at a sensitive place or commercial place.

Stated conditions Table A and Figure 2

The change request also proposes to amend stated conditions Table A and Figure 2 to reflect changes to Ba, B1, B3 and B4 and incorporate recommendations of the Land Court (2021) Decision and the air quality joint experts report[7] prepared for the Second Remitted Land Court Hearing.

Table A would be amended as follows:

- sensitive receptors 1,2 (Acland): additional requirement for $PM_{2.5}$ monitoring and daily/annual limits, PM_{10} annual limits, insoluble solids (dust) daily limits; and continuous monitoring of temperature, precipitation, relative humidity and solar and net radiation
- sensitive receptors 7,8 (north of mine): new requirement for monitoring of PM_{10}, TSP and insoluble solids (dust), including exceedance limits
- sensitive receptor 15 (north-east): new requirement for monitoring of PM_{10}, TSP and insoluble solids (dust), including exceedance limits
- sensitive receptor 16 (east – formerly referred to as Acland-Silverleigh Road): additional exceedance limits for PM_{10} (annual) and insoluble solids (dust) (daily)
- sensitive receptors 35,36 (west of mine site): additional exceedance limits for PM_{10} (annual) and insoluble solids (dust) (daily)
- sensitive receptor 37 (west): new requirement for trend monitoring of PM_{10}, TSP and insoluble solids (dust)
- sensitive receptors 38,39 (north-west): new requirement for monitoring of PM_{10}, TSP and insoluble solids (dust), including exceedance limits
- sensitive receptor 44 (north-west): new requirement for trend monitoring of PM_{10}, TSP and insoluble solids (dust).

Table A identifies that alternative locations may be selected for sensitive receptors 7/8, 37, 38/39 and 44, pursuant to proposed stated condition B4.

Proposed changes to Figure 2 include:

- update of compliance monitoring locations to reflect proposed amendments to Table A
- removal of the identification of existing dust gauges as monitoring of insoluble solids would be undertaken at the locations identified in Table A

[7] Second Remitted Land Court Hearing, Exhibit 24.

- provision of an additional compliance monitoring location at the north-east of the mine at sensitive receptor 15
- removal of requirement for a compliance monitor south of the mine, consistent with air quality joint expert finding that the monitor was unnecessary.

The locations of trend monitoring stations are not illustrated on Figure 2 of the proposed EA as the Land Court (2021) Decision[8] considered these locations may change and are more appropriately dealt with in the AEMP as a subplan to the EA. I agree with this determination.

New stated conditions B5 and B6

The change request proposes the addition of new stated conditions B5 and B6 in response to the reasons of the Land Court (2021) Decision which specifically contemplated a review of the air quality monitoring program and monitoring requirements by a suitably qualified and experienced person.

As described above, review of the AEMP is required under stated condition B3. Proposed new stated condition B5 provides for a review of Table A as part of the review of the AEMP. The proposed condition requires that the review must be undertaken by a suitably qualified and experienced person and a report must be provided to the administering authority following the review:

- within two years and three months of the grant of MLA50232 and MLA700002 and every two years thereafter
- prior to NAC increasing its extraction rate over 5.1 mtpa.

The proposed condition also requires that the review must include:

- the effectiveness of the monitoring network
- the frequency and cause of any exceedances of air quality objectives measured by the monitoring program over a period of at least two years
- dust complaints
- future progression of the mining activities
- locations of sensitive receptors relative to the mining activities
- mining operating modes
- the suitability of the locations, types and parameters of the monitoring network.

Proposed stated condition B6 would allow stated condition Table A to be amended to reflect recommendations of a revised AEMP (provided pursuant to stated condition B3) or a review of Table A (pursuant to stated condition B5). The proposed condition would also require that any additional monitors recommended in a revised AEMP or review of Table A must be installed and must be operational as soon as practicable after receiving approval from the administering authority, and prior to production of more than 5.1 mtpa of product coal.

[8] Land Court (2021) Decision paragraph [175]

4.3.2 Evaluation of proposed amendments

Monitoring parameters

The 2016 and 2021 Land Court hearings for the project heard extensive discussion and expert witness testimonies relating to EA conditions for air quality and dust. In 2016, the court placed an emphasis on air quality, finding that dust is a nuisance and can interfere with one's amenity of life.

The proposed amendments to stated condition B1 and the proposed stated condition Ba would impose additional air emission controls on the project, consistent with the updated EPP (Air) 2019 and NEPM (Air). These controls would require the EA holder to ensure that air emissions generated by mining activities do not cause a disturbance at a sensitive place or commercial place, minimising risk to amenity of life. Importantly, proposed condition Ba confirms the measurement of air emissions for a sensitive place or commercial place can occur at either the location of the sensitive place or at another monitoring location representative of the sensitive place or commercial place. This is key to ensuring compliance with the relevant conditions when the required access to the sensitive place or commercial place cannot be obtained.

I am satisfied that the proposed changes to monitoring parameters reflect the intended purpose of stated condition B1 such that the mine does not exceed the EPP (Air) 2019 criteria and NEPM (Air), while also providing additional detail relating to monitoring methodology and measurement of air emissions. I agree with NAC's assertion that the proposed change would ensure the stated conditions reflect the compliance monitoring regime for air emissions recommended in the Land Court (2021) Decision.

Monitoring locations

In 2016, the parties to the Land Court hearing agreed that there should be air quality and dust monitoring sites to the east, north, north-west and west of the mine, as well as a central location at Acland. In addition to these, the Land Court (2016) recommended that a further monitoring location be installed within one kilometre to the south of the mine, to ensure residents to the south would not be subjected to unsafe air quality and dust levels. These monitoring locations were adopted by the proponent in the development of their AEMP, as endorsed by DES, and subsequently approved by CGCR 3.

The air quality joint experts report[9] presented in the Second Remitted Land Court Hearing identified that monitoring locations in the EA were generally adequate, however recommended installation of an additional monitoring station to the north-east of the project, representative of sensitive receptor 15. The air quality joint experts report highlighted that despite their proximity to one another, elevated concentrations of PM_{10} could occur at sensitive receptor 15 with relatively low concentrations at sensitive receptor 16 and vice versa, prompting recommendation that monitoring occur at both locations. The air quality joint experts report also identified that the monitoring station located one kilometre to the south of the project was not necessary.

Consistent with this advice, the change request seeks to include compliance monitoring at sensitive receptor 15 and remove the requirement for continuous monitoring to the south of the project. The change request also seeks to remove the identification of existing dust gauges from Figure 2.

As described in Section 4.3.1 above, proposed stated condition B4 specifies additional provisions for the AEMP, including a requirement that monitoring locations continue to act as suitable representative sites for sensitive places (if there is no monitor at a particular sensitive place), and a requirement for trend monitoring at two locations (identified in proposed Table A and Figure 2 as sensitive receptors 37 and

[9] Second Remitted Land Court Hearing, Exhibit 24.

44). Table A also identifies that alternative monitoring locations may be selected for sensitive receptors 7/8, 37, 38/39 and 44, pursuant to proposed stated condition B4.

The revised conditions would provide for greater flexibility in the siting of continuous and trend monitoring locations as mining progresses. I note the proposed number of compliance monitoring sites would remain at six, however the relocation of the south monitoring site to sensitive receptor 15 would better represent sensitive receptors potentially affected at commencement of stage 3 project mining activities. On the advice of DES, I am satisfied that the removal of the monitoring site to the south of the project would not reduce the effectiveness of the project's air quality monitoring program.

Further, I consider that dust (insoluble solids) monitoring and exceedance limits proposed in Table A are representative of sensitive receptors closest to the mine and would provide adequate dust monitoring to assist the proponent to understand the effects of mining activities on emission levels. I am satisfied with the proposed removal of dust monitoring locations identified on Figure 2.

Monitoring, mitigation and management

Proposed stated condition B3 provides for the regular review of the AEMP and for submission of the AEMP to the administering authority for review and comment at specified intervals. I am satisfied the identified intervals would appropriately reflect various stages of mining and would ensure the AEMP can be adapted to avoid or mitigate air emission impacts should mining operations intensify from the predicted production rate of 5.1 mtpa up to the allowable 7.5 mtpa[10].

To ensure the AEMP remains adequate to support air quality management, I have included a requirement within stated condition B3 that the AEMP must be submitted to the administering authority for approval. This is consistent with the Statutory Party EA tabled in the objections hearing for the Land Court (2021) Decision, and observation of Her Honourable Member Stilgoe that the AEMP would be subject to DES' approval[11].

Proposed stated condition B4 would require that the AEMP provide a program for continuous improvements for the management of dust, including a requirement that monitoring locations continue to act as suitable representative sites. To support continuous improvement, the AEMP would be required to develop a forecasting system that provides daily predictions of meteorological conditions, as well as the development of a TARP that requires active investigation and management of TSP exceedances.

As an existing operator of the stage 2 project, NAC has already established a sophisticated real-time monitoring network, used in conjunction with a weather forecasting system to proactively identify potential for air quality and noise limit exceedances. Where potential for exceedance is identified (e.g. forthcoming severe weather event or dust storm), mining-related activities are actively relocated, reduced, or temporarily ceased to minimise potential for non-compliance. I consider NAC's implementation of proactive management for the stage 2 project demonstrates their commitment to achieving requirements of stated condition B4 of the stage 3 project. I further note NAC's commitment (2014 CGER; change request) to continue publishing a monthly environmental monitoring report which includes a summary of air quality, noise and vibration monitoring data.

Proposed stated condition B5 provides that as part of the review of the AEMP (required by proposed stated condition B3), Table A must also be reviewed by a suitably qualified and experienced person. The proposed condition specifies key matters to be considered in the review, and intervals within which a report on the review must be provided to the administering authority.

[10] Land Court (2021) Decision paragraphs [132] to [145]
[11] Land Court (2021) Decision paragraph [175]

Proposed stated condition B6 would allow Table A to be amended to reflect recommendations of a revised AEMP (provided pursuant to stated condition B3) or a review of Table A (pursuant to stated condition B5). Stated condition B6 would also require timely installation and operation of any additional monitors recommended in a revised AEMP.

The Land Court (2021) Decision[12] noted that some monitoring requirements should not be subject to conditions for the life of mine, rather they would more appropriately form part of the consideration of the AEMP. I note that while Table A includes prescriptive monitoring requirements, proposed stated conditions B5 and B6 ensure the adaptability of Table A as mining progresses, consistent with the Land Court (2021) Decision.

I am satisfied with the proposed new stated conditions B5 and B6, namely the requirement for regular review and reporting on Table A and implementation of recommendations resulting from reviews of Table A and the AEMP. I consider the conditions would further support review and refinement of air quality monitoring locations and parameters, consistent with the recommendations in the Land Court's (2021) Decision and the intent of the 2014 CGER.

The Land Court (2021) Decision[13] recognised that over time, air quality parameters and sensitive receptors can change, and therefore air quality monitoring and management should be adaptable. I consider the proposed stated conditions Ba, B1, B3, B4, B5 and B6, Table A and Figure 2 are intended to provide for that adaptive management.

4.3.3 Conclusion

I consider the revised air quality stated conditions propose an air quality compliance monitoring framework which is more rigorous than that described in the evaluated project the subject of the 2014 CGER, as it includes a greater variety and more stringent monitoring parameters, while providing the adaptability required to ensure long-term air quality compliance.

The amendments are responsive to the recommendations in the Land Court (2021) Decision, including the Statutory Party EA and air quality joint expert witness report advice tabled during proceedings.

Accordingly, I approve the changes to stated conditions B1, B3, B4, Table A and Figure 2, and the introduction of new stated conditions Ba, B5 and B6 as set out at Appendix 2. The stated conditions at Appendix 2 are consistent with the Land Court (2021) Decision and I am satisfied that they are also consistent with the intent of the 2014 CGER.

4.4 Stated conditions – noise

4.4.1 Background to stated conditions

During the EIS process, NAC considered potential impacts of the project against relevant criteria, such as the Environmental Protection (Noise) Policy 2008 (EPP (Noise)) standards, to determine what mitigation measures would be required to minimise potential for impacts to sensitive receptors. To ensure long-term compliance with noise standards, stated conditions D1, D2, D3, D4 and D5 specified noise limits and monitoring and reporting requirements.

In December 2018, NAC lodged an application requesting changes to stated conditions of the 2014 CGER to satisfy recommendations of the 2018 Remitted Land Court Decision (Land Court (2018)). On 12 February 2019, I approved the proposed changes and released CGCR 1. The changes reflected

[12] Land Court (2021) Decision paragraphs [195] [200].
[13] Land Court (2021) Decision paragraphs [175] [195] [200].

Land Court (2018) orders, establishing a single set of noise limits for all project stages and providing more stringent noise limits for evening and night-time periods.

NAC's latest change request seeks to confirm noise monitoring locations, and ensure parameters, reporting and abatement measures are consistent with contemporary acoustic best practice and measured in accordance with the Noise Measurement Manual 2020. These changes seek to implement the recommendations in the Land Court (2021) Decision with reference to the findings of the noise joint expert testimony, reports and statements.

The experts agreed that the draft EA conditions are appropriate to manage noise impacts, and that current noise mitigation and management measures could achieve the draft EA noise limits. A sophisticated performance noise monitoring system is required to ensure compliance with the noise limits. NAC has implemented a central dashboard control station that is continuously monitored and logged, with trained operators able to identify whether the mining operations are working within or approaching noise limits. The experts agreed that NAC now has a suitably sophisticated monitoring system, and that the proposed conditions will make it easier to determine compliance.

Reflecting the expert testimony, the Land Court (2021) Decision made recommendations regarding noise and vibration emissions management. NAC's change request seeks to amend stated conditions D1, Table D1a, D2, D4 and D5 to implement the recommendations in the Land Court (2021) Decision.

4.4.2 NAC's proposed changes to noise stated conditions

Stated condition D1 and Table D1a

The change request seeks to amend stated condition D1 to include a note that the measurement of noise for a noise sensitive place or commercial place is either at that place or at the monitoring location to which the noise sensitive place or commercial place is correlated. The purpose of this change is to clarify where noise measurements could be taken. This change was proposed by OCAA in the Second Remitted Land Court Hearing[14] and accepted by all parties.

The change request describes that the proposed change to stated condition D1 was referenced by the Land Court[15] and no particular issue was taken by NAC with that amendment.

Table D1a is proposed to be amended to ensure there is no uncertainty as to the applicable noise limits and to include the addition of Notes 1 and 2 to Table D1a. The intent of the Notes is to clarify that the rail spur noise limits are applicable only to noise which is distinguishable as train noise. The other noise limits apply to all other noise from the mining activities that is not distinguishable as train noise. The amendments to Table D1a do not result in any new impacts or any change to the severity of impacts.

Stated condition D2

The change request describes that the proposed amendments to stated condition D2 will ensure that the obligation to implement noise abatement measures is triggered when either of NAC's performance or compliance monitoring indicates the potential for exceedance of the relevant noise limits.

Stated condition D4

The change request describes that the proposed amendments to stated condition D4 seek to retain the existing purpose of the condition but refine the monitoring parameters for the compliance noise

[14] Land Court (2021) Decision paragraph [226].
[15] Land Court (2021) Decision paragraph [226].

monitoring program to align with acoustic expert evidence provided in the Second Remitted Land Court Hearing[16].

Expert evidence was given that low frequency monitoring needs to be done "internally", meaning it must be conducted inside the residence or place concerned. The proposed amendment reflects that advice, and would include monitoring of the following:

- $L_{A01, adj, 15 min}$ - day, evening & night; $L_{A10, adj, 15 min}$ - day, evening & night; $L_{Aeq, adj, 15 min}$- day, evening & night; and $L_{A90, adj, 15 min}$ - day, evening & night
- the effects due to any extraneous factors such as traffic noise and natural sources (e.g. insects, birds and wind)
- low frequency noise inside a residence or place concerned where permitted by the owner or occupier
- maximum (L_{Amax}) noise levels - night (for a minimum of 30 minutes)
- 1/3 octave band spectrums.

Stated condition D5

The change request also seeks to amend stated condition D5 to require the results of its blast monitoring program to be in monthly compliance monitoring reports which are to be provided to the administering authority. Noise related definitions are also proposed to be updated for consistency with conditions D1 and condition D4. This proposed amendment is consistent with the conditions tabled by the Statutory Party (DES) in the Second Remitted Land Court Hearing and seeks to provide more accountability and oversight.

4.4.3 Evaluation of proposed changes

NAC's proposed amendments to stated conditions D1, Table D1a, D2, D4 and D5 seek to enact the recommendations in the Land Court (2021) Decision.

Stated condition D1 and Table D1a

The proposed amendment to stated condition D1 would clarify where noise measurements could be taken. This proposed change is consistent with the proposal by the Statutory Party in the Second Remitted Land Court Hearing[17] and remains consistent with the intent of the stated condition. The amendment is a clarification and would not introduce any new or affect existing project impacts.

The noise limits set out in Table D1a of the stated conditions were established by CGCR 1 following the Land Court (2018) finding that a limit of 35 dBA in the evening and night was more conducive to the wellbeing of the community. NAC is proposing to amend Table D1a to solidify noise management and clarify how noise limits are to be measured for compliance. The amendment ensures there is no uncertainty as to the applicable noise limits for the project.

I am satisfied that these amendments will provide more certainty for project compliance and note that the amendments are consistent with the Land Court (2021) Decision and expert evidence.

Stated condition D2

The proposed amendments to stated condition D2 would ensure that the obligation to implement noise abatement measures to avoid exceeding the relevant limits is triggered when either of NAC's

[16] Land Court (2021) Decision paragraph [244].
[17] Land Court (2021) Decision paragraph [226].

performance or compliance monitoring indicates the potential for exceedance of the relevant noise limits. These changes further tighten the existing requirements and will achieve a benefit in terms of compliance management. NAC has submitted that this amendment is consistent with the recommendations in the Land Court (2021) Decision. I agree with this assessment, noting that the Land Court (2021) Decision observed[18]] that if NAC's monitoring shows that noise levels are approaching the limits, then unless there are other third-party factors involved, there is scope for a potential exceedance which will require action.

Stated condition D4

The proposed amendment to stated condition D4 would retain the existing purpose of the condition and refine the monitoring parameters for the compliance noise monitoring program. I am satisfied that the proposed amendment confirms that compliance noise monitoring will be undertaken in accordance with DES' Noise Measurement Manual and align with the acoustic expert evidence provided in the Second Remitted Land Court Hearing. The amendment would not introduce any new or affect existing project impacts.

Stated condition D5

The proposed amendment to stated condition D5 would require the results of its blast monitoring program to be in monthly compliance monitoring reports which are to be provided to the administering authority.

Noise related definitions are also proposed to be updated for consistency with stated conditions D1 and D4. I am satisfied that this amendment would provide a greater oversight to the administering authority and retains the original intent of the stated condition. The amendment would not introduce any new project impacts.

4.4.4 Additional noise stated conditions

In addition to the above amendments to noise stated conditions, in consultation with DES, I have also determined that additional stated conditions D4a, D4b, Table D4, D6, D7 and D8 are required to adequately reflect recommendations of the Land Court (2021) Decision.

New stated conditions D4a, D4b and Table D4

The Land Court (2021) Decision[19] describes that during the Second Remitted Land Court Hearing, NAC and DES proposed that a Noise Monitoring Program (NMP) be developed, approved and implemented, nominally to support compliance monitoring and reporting. The Land Court (2021) Decision generally supported this inclusion[20], however I note these conditions did not form part of NAC's change request.

I support the development of a NMP for the project, and have stated new conditions D4a, D4b and Table D4 at Appendix 2 to require the development of, and establish provisions for, a NMP.

Stated condition D4a would:

- provide specificity as to the qualifications of the appropriate person to develop the NMP
- require that the NMP be implemented for all stages of mining

[18] Land Court (2021) Decision paragraph [234].
[19] Land Court (2021) Decision paragraph [237].
[20] Land Court (2021) Decision paragraph [237] and cross reference to provisions at paragraphs [171] and [172].

- require the NMP to be submitted to the administering authority for approval within three months of the grant of MLA50232 and/or MLA700002
- require the NMP to be implemented within three months of the administering authority approving the NMP
- require that compliance noise monitoring and recording be undertaken upon request of the administering authority to investigate any complaints of environmental noise nuisance at any noise sensitive places.

The frequency and locations of compliance noise monitoring are specified in Table D4, which is consistent with the Statutory Party EA presented by DES in the Second Remitted Land Court Hearing. I am satisfied the inclusion of stated condition D4a is consistent with recommendations of the Land Court (2021) Decision and will further ensure NAC's compliance with Table D1a (noise limits).

Noise nuisance has been a critical issue relevant to the change request and has been raised in information provided by key stakeholders during the consultation undertaken pursuant to section 35F of the SDPWO Act. I have included stated condition D4b to ensure there is a mechanism for the administering authority to manage complaints of environmental noise nuisance at any noise sensitive place. The condition requires that, when requested by the administering authority, compliance noise monitoring and recording must be undertaken within a reasonable and practicable timeframe to investigate any complaint of environmental noise nuisance at any noise sensitive place. I am satisfied the inclusion of stated condition D4(b) will ensure complaints are adequately investigated and overseen by the administering authority.

I am satisfied the controls provided by stated conditions D4a, D4b and Table D4 would require the EA holder to ensure that noise generated by mining activities does not cause environmental nuisance at a noise sensitive place, minimising risk to amenity of life.

New stated conditions D6 and D7

The parties to the Second Remitted Land Court Hearing[21] agreed that the NMP must include a system of real-time performance monitoring, however there was some disagreement regarding use of real-time monitoring data for compliance and performance management. NAC submitted that the condition as proposed by DES in the Statutory Party EA contemplated the use of performance monitoring data to assess compliance, which the noise expert witness described[22] would be inconsistent with provisions of the Noise Measurement Manual. Her Honour Member Stilgoe [23] identified that she did not think the condition was clear in that respect, however indicated that DES should be able to use the performance monitoring data in assessing compliance, with the appropriate caveats.

I have stated a new condition D6 as set out in Appendix 2 to include real-time monitoring requirements. Consistent with the Land Court (2021) Decision, I have included a note specifying that performance monitoring required under this condition is to be used for performance management rather than monitoring for compliance with Table D1a. However, the administering authority may use data produced under this condition to investigate compliance.

As described section 4.3.2 of this report, NAC has already established a sophisticated real-time monitoring network, used in conjunction with a weather forecasting system to proactively identify potential for air quality and noise limit exceedances for the existing stage 2 project. I am confident this can be applied to the stage 3 project.

[21] Land Court (2021) Decision paragraph [246].
[22] Refer summary in Land Court (2021) Decision paragraph [230].
[23] Land Court (2021) Decision paragraph [231].

Consistent with recommendations of the Land Court (2021) Decision, I have added stated condition D7 to assist the administering authority in determining the efficacy of the NMP. I have included a requirement for an annual NMP report to be provided, which will detail the correlation measurements between the real-time monitoring system and the noise sensitive receptors; and how the real-time monitoring system adjusted the real-time measurement data in accordance with the correlation assessment at each monitoring location.

I am satisfied the inclusion of stated conditions D6 and D7 would support NAC's continued real-time performance monitoring as part of the NMP and is consistent with the Land Court (2021) Decision[24].

New stated condition D8

The Statutory Party EA presented in the Second Remitted Land Court Hearing proposed a condition requiring NAC to develop and implement a Noise and Vibration Management Plan (NVMP) within three months of commencement of the stage 3 project. This was supported by the Land Court (2021) Decision[25].

I note that a NVMP was prepared by NAC and was accepted by the administering authority on 3 March 2020, however given changes proposed in this report and the time that has elapsed since it was prepared and submitted, I have determined it would be appropriate for NAC to review and resubmit a NVMP.

The inclusion of new stated condition D8 will ensure an up-to-date NVMP is developed and implemented for all stages of mining. This is consistent with the intent of the 2014 CGER, which recognised that the NVMP developed as part of the EIS would need to be regularly reviewed and updated to ensure hazards and risks are managed, and compliance with legislative requirements is maintained. I note the noise quality joint experts report[26] prepared for the Second Remitted Land Court Hearing identified that the NVMP provides critical function on how the conditions are to be implemented in practice. The addition of this condition would support the goal of ensuring noise does not become an environmental nuisance interfering with the amenity of life, and I am satisfied that the addition reflects the Land Court (2021) Decision.

4.4.5 Conclusion

On the advice of DES, I consider the revised noise stated conditions as proposed by NAC, and my proposed new stated conditions, would provide a noise monitoring and compliance framework which is more rigorous than that described in the evaluated project the subject of the 2014 CGER. The new framework includes more stringent noise monitoring parameters and reporting requirements, while providing the adaptability required to ensure long-term noise compliance. I am satisfied the stated conditions at Appendix 2 are consistent with the Land Court (2021) Decision and the intent of the 2014 CGER.

Accordingly, I approve the changes to stated conditions D1, Table D1a, D2, D4 and D5, and approve the addition of new stated conditions D4a, D4b, Table D4, D6, D7 and D8, as set out at Appendix 2.

[24] Land Court (2021) Decision paragraph [246].
[25] Land Court (2021) Decision paragraph [237].
[26] Second Remitted Land Court Hearing, Exhibit 19.

4.5 Stated conditions – water management

4.5.1 Background

During the EIS process, NAC prepared a Water Resources Management Plan (WRMP) to address potential impacts to surface water quality. The WRMP confirmed the project's key principles for water management, including:

- diversion of clean water away from mine areas
- capture, treatment and re-use of mine-affected water and if required, discharge into Lagoon Creek when water quality limits and discharge conditions are able to be met
- on-site monitoring of water quality
- efficient transfer and use of water supplies around the site to ensure best use of water resources.

To ensure sufficient controls were implemented for the protection of surface water quality values resulting from site contaminants and works in Lagoon Creek, the 2014 CGER stated conditions of approval, including monitoring locations, receiving water contaminant trigger levels and data monitoring.

4.5.2 Proposed changes to stated conditions F10, Table F4, F15, F17 and F18

The change request seeks to amend stated conditions for management of surface water impacts to implement the recommendations and findings of the Land Court (2021) Decision, contemporise conditions and align with current Condamine River Basin Water Quality objectives.

The change request proposes amendments to stated conditions F10, Table F4, F15, F17 and F18. The changes seek to reflect the current Water Tracking and Electronic Reporting System (WaTERS). WaTERS is a mechanism developed and managed by the Department of Science, Information Technology and Innovation (DSITI) to improve the tracking of regulated activities in Queensland that involve water releases to the environment. The condition amendment would require NAC to submit their monitoring data electronically to WaTERS, whereupon the system would automatically check the data against approval limits. DES would be notified should NAC's activities operate outside the specified limits.

The change request also proposes to amend the Electrical Conductivity (EC) trigger limits at stated condition Table F4 to align with the current Condamine River Basin Environmental Values and Water Quality Objectives (Condamine WQOs). The trigger limit for receiving waters is to be revised from 700 microSiemens per centimetre (µS/cm) to 510 µS/cm.

The proposed changes to stated conditions F15 and F18 would introduce more rigorous timing for when NAC is required to provide relevant reports to the administering authority.

4.5.3 Evaluation of proposed changes

The Land Court (2021) Decision noted the expert witness statement[27] identified that the draft EA conditions are sufficient to protect the environmental values of local receiving waters and would ensure the project does not have any impact on neighbours or the geomorphology of Lagoon Creek. The expert witness statement further identified that there were no substantive differences between the draft EA

[27] Second Remitted Land Court Hearing, Exhibit 12.

presented in the Land Court (2021) Decision hearing and the draft EA tabled at the Land Court hearing in 2016.

At the time of release of the EIS, AEIS and 2014 CGER, the ANZECC and ARMCANZ (2000) water quality guidelines were considered best practice and used to establish water quality objectives (WQOs) for the project. Since the release of the 2014 CGER, the Australian and New Zealand Guidelines for Fresh and Marine Water Quality Guidelines (ANZG 2018) have replaced the ANZECC and ARMCANZ (2000) guidelines. In addition, the Condamine WQOs[28] were established as part of the *Environmental Protection (Water and Wetland Biodiversity) Policy 2019*. The expert witness statement presented in the objections hearing for the Land Court (2021) Decision[29] recommended that the EA for the project should be updated to reflect the ANZG (2018) guidelines and Condamine WQOs.

I am satisfied the amendments to stated conditions F15 and F18 would increase the project's accountability relevant to surface water monitoring and reporting.

4.5.4 Conclusion

I consider the proposed amendments to stated conditions F10, Table F4, F15, F17 and F18 would contemporise management of surface water quality to ensure protection of the environmental values of receiving waters. I note the proposed amendments are consistent with the Land Court's (2021) findings and the expert witness statement. I note the Land Court's statement "*Mr Roads is satisfied that the draft EA conditions are sufficient to protect the environmental values of the local receiving waters, that Stage 3 would be able to comply with the EA conditions, and that it would have no material flooding impacts on neighbours or impact on the geomorphology of Lagoon Creek*."[30] I am satisfied that the proposed amendments are consistent with the intent of the 2014 CGER.

Accordingly, I approve the changes to stated conditions F10, Table F4, F15, F17 and F18 as set out at Appendix 2.

4.6 Administrative and consequential amendments

The change request also seeks administrative and consequential amendments to stated conditions, including:

- update stated conditions A4 and A5 to reflect the recommendations in the Land Court (2021) Decision that monitoring data should be retained for a period of five years
- update stated condition B2 to cross-reference relevant stated conditions Ba and B1 as amended
- update stated condition D3, Table D2 to clarify that no blasting is to occur on a Saturday before 9am or after 1pm
- update Table H4 to reflect changes proposed in the Statutory Party EA as submitted in the Second Remitted Land Court Hearing
- update Glossary for Appendix 2 of the stated conditions to include new definitions
- update Table F5 and Table H4 to address minor clerical errors

[28] https://environment.des.qld.gov.au/__data/assets/pdf_file/0017/214226/Condamine-River-Basin.pdf
[29] Second Remitted Land Court Heating, Exhibit 12.
[30] Land Court (2021) Decision paragraph [68].

- update stated condition numbering and cross-referencing changes to reflect proposed amendments.

The proposed updates to stated conditions A4 and A5 reflect the agreement between all parties to the Second Remitted Land Court Hearing that NAC's monitoring data should be retained, and the Land Court's recommendation that a retention period of five years is sufficient. I am satisfied that this is appropriate.

I consider the proposed amendment to stated condition B2 is administrative in nature and to be appropriate in light of the changes to stated condition B1 and the introduction of stated condition Ba.

I consider the proposed amendments to Table H4 are administrative in nature and reflect the Statutory Party EA as submitted in the Second Remitted Land Court Hearing and the project's Environmental Offsets Strategy as approved by the Coordinator-General in December 2019 under imposed condition 13. The proposed changes would reorder the species list and include a column identifying the requirement that any species disturbance would require offsets. The proposed change includes a footnote identifying that any offsets conditioned under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) are likely to address offsetting for MSES as required under the EA. This is consistent with the provisions of the *Environmental Offsets Act 2014* (Qld). I am satisfied the proposed changes to Table H4 do not introduce new impacts or increase maximum disturbance areas.

I am satisfied the new definitions proposed within the stated conditions glossary are consistent with the Statutory Party draft EA as presented in the Second Remitted Land Court Hearing and support making the proposed amendments.

Accordingly, I approve the changes set out in Appendix 2 to reflect the above administrative and consequential amendments to stated conditions.

5. Additional amendments to conditions

Under section 35I(2)(c) of the SDPWO Act, the Coordinator-General may amend any conditions or recommendations for the project as stated within the 2014 CGER.

Since the release of the 2014 CGER, requirements of the EP Act have been amended pursuant to provisions introduced under the *Mineral and Energy Resources (Financial Provisioning) Act 2018* (MERFP Act). Of particular relevance to this project, the MERFP Act:

- replaced the financial assurance arrangements for resource activities under the EP Act with a new financial provisioning scheme, changing how the estimated rehabilitation cost for an environmental authority is calculated
- removed requirements for a plan of operations to be developed for mining leases under the EP Act.

To ensure consistency with current legislative requirements, and on the advice of DES, I approve the following amendments to stated conditions at Appendix 2:

- removal of stated conditions A7 and A8 as these requirements are now captured under section 298 of the EP Act (Estimated Rehabilitation Cost requirements) and no longer required to be conditioned in the environmental authority
- update stated condition H2 to remove reference to the plan of operations, rather the condition would require that rehabilitation commence progressively as land becomes available for rehabilitation
- update stated condition C6 to require that tailings be managed in accordance with procedure contained within a Tailings Management Plan rather than a plan of operations.

In consultation with DES, I have also updated stated conditions to reflect the correct terminology with regard to regulated structures and regulated dams.

I am satisfied the proposed amendments are consistent with the intent of the 2014 CGER and current legislative requirements of the EP Act.

The revised conditions and recommendations provided at Appendices 1, 2 and 3 also include consequential amendments to account for readability, departmental naming conventions and formatting.

6. Conclusion

This report concludes my evaluation of the change request pursuant to section 35I of the SDPWO Act.

I am satisfied that the requirements of the SDPWO Act have been met and that sufficient information has been provided to enable the evaluation of the requested changes to stated conditions for the stage 3 project.

I note NAC's project commitments have also been updated and are provided in the change request.[31]

In accordance with section 35K of the SDPWO Act, conditions and recommendations of the evaluated project are now replaced by conditions and recommendations at Appendices 1, 2 and 3 of this change report. Approved changes to conditions and recommendations at Appendices 1, 2, and 3 are depicted in grey highlight.

A copy of this report will be issued to the proponent. A copy of this report will also be issued to DES, the administering authority for stated conditions.

A copy of this report and all relevant EIS assessment documentation is available on the Department of State Development, Infrastructure, Local Government and Planning's website at **www.statedevelopment.qld.gov.au/newacland**

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Toni Power
Coordinator-General
26 MAY 2022

[31] New Hope Group, *Request to change a condition, New Acland Coal Mine Stage 3 Project*, March 2022, available at https://www.statedevelopment.qld.gov.au/coordinator-general/assessments-and-approvals/coordinated-projects/completed-projects/new-acland-coal-mine-stage-3-project/project-changes

Appendix 1. Coordinator-General's Imposed Conditions

This appendix includes conditions imposed by the Coordinator-General under section 54B of the SDPWO Act.

In accordance with section 54B(3) of the SDPWO Act, I have nominated several entities to have jurisdiction for the conditions in this schedule.

General audit

Condition 1. Audit requirements

(a) The audit period will:

  (i) commence within one (1) year of the project receiving the amended EA ('EA') and mining leases required for the project; and

  (ii) end once Condition 1(f) has been satisfied for all imposed conditions.

(b) Audits must be undertaken throughout the Audit Period on an annual basis during the project construction phase (Construction Audit).

(c) Audits must be undertaken throughout the Audit Period every three (3) years during the project operations phase or at such lesser frequency as agreed by the Coordinator-General in writing (Operations Audit).

(d) Audits must be undertaken generally in accordance with AS/NZS /SO *19011:2014 Guidelines for auditing management systems* by a suitably qualified person, engaged by, and at the expense of the proponent.

(e) The proponent must provide the Audit Report to the Coordinator-General within 30 business days after the end of the relevant Construction Audit or Operations Audit.

(f) The Coordinator-General may determine that an imposed condition has been satisfied where:

  (i) the condition (or its intent) has subsequently become a requirement of, or has been addressed through subsequent legislation or another regulatory approval; and

  (ii) it is no longer appropriate that the matter be addressed by the Coordinator-General, as it is managed pursuant to other regulatory requirements, or

  (iii) the condition (or intent) has been completed to the satisfaction of the Coordinator-General.

The Coordinator-General is to have jurisdiction for this condition.

General notification

Condition 2. Project milestone commencement dates

The proponent must notify the Coordinator-General and all nominated entities in writing of the granting of the EA and mining leases for the project; commencement of the construction phase and the commencement of the operation phase at least four weeks prior to the relevant commencement date.

The Coordinator-General is to have jurisdiction for this condition.

Monthly environmental monitoring reports

Condition 3. Environmental monitoring reports

From the commencement of construction for the New Acland Coal Mine Stage 3 project (the project), the proponent is to prepare and make publicly available each month (including online) environmental monitoring reports that address performance against EA conditions that set limits for air, noise, and vibration impacts.

The Coordinator-General is to have jurisdiction for this condition.

Rail infrastructure

Condition 4. Train load-out facility: New Acland Coal Mine Stage 3

(a) The new train load-out facility (as indicated on Figure 2.1 of the Coordinator-General's evaluation report on the environmental impact statement) for the project is required to be the sole distribution point for all railed product 24 months after the mining of first coal from ML50232.

(b) The proponent must notify the Coordinator-General in writing within two (2) weeks following the mining of first coal from ML50232.

(c) The proponent must provide a report on the status of the construction progress and schedule for the new train load out facility to the Coordinator-General quarterly from the mining of first coal until the new train load out facility is operational.

(d) The proponent must notify the Coordinator-General in writing at least two (2) weeks prior to the new train-load out facility becoming operational.

First coal: commencement of excavation of any coal from ML50232.

The Coordinator-General is to have jurisdiction for this condition.

Condition 5. New Acland Coal Mine Stage 3: rail spur design

(a) A suitability qualified person must certify that the design and construction of the rail spur:

(i) is in accordance with the design criteria in the Department of Transport and Main Roads (March 2010) Road Drainage Manual 2nd edition

(ii) meets the following criteria for a two per cent annual exceedance probability rainfall event (50 year Annual Recurrence Interval):

(1) not cause, or have the potential to increase flood damage at a domestic premises or commercial premises

(2) a maximum increase in afflux of 0.1 m at a domestic premises or commercial premises

(3) a maximum increase in afflux of 0.2 m at the Jondaryan-Muldu road, or existing electricity, water supply, sewage or telecommunications infrastructure in the town of Jondaryan

(4) a design objective of an increase in afflux of 0.3 m, with a maximum increase in afflux of 0.5 m at other locations

(5) a maximum culvert outlet velocity of 2.5 m/s

(6) any increase in duration of floodplain inundation is not to exceed 72 hours of 20 percent of existing flood duration (whichever is greater).

(b) Certification is to be provided to the issuer of the infrastructure mining lease.

(c) Landowners, residents, asset owners likely to be impacted by changes to the existing flooding/drainage system, and, at a minimum, Toowoomba Regional Council (TRC) and the Queensland Reconstruction Authority must be consulted prior to completion of the final rail spur design.

(d) Where the rail spur cannot be designed, constructed and maintained so as not to cause or increase flood damage at residential premises or at a commercial premises, compensation is to be negotiated with affected landowners, residents, and asset owners.

(e) The rail spur design must be completed and provided to Department of Resources (DOR) and the Coordinator-General within 12 weeks of the date upon which all of the mining leases and the associated water licence for the project have been granted.

The Coordinator-General is to have jurisdiction for this condition.

Disturbance areas

Condition 6. Land resource survey

(a) Prior to the commencement of operations for the project, for all mining lease areas associated with the project, the proponent must undertake a detailed land resource survey of the proposed mining disturbance areas (being pits, elevated landforms and slope batters) identified in the August 2014 *Additional information to the EIS: New Acland Coal Mine Stage 3 project*.

(b) The field survey of the disturbance areas is to meet the following requirements:

(i) be undertaken by an appropriately qualified person

(ii) have a minimum investigation site density of 1 site/10 hectares

(iii) provide a detailed description of the investigation site and associated soil profile at a minimum of 1 in 3 of the investigation sites

(iv) provide the results of the survey graphically on a map with a cartographic scale of 1:20,000 (i.e. 1 cm^2 = 5 hectares)

(v) the description of investigation sites and soil profiles are to be made in accordance with *Australian soil and land survey field handbook* (NCST, 2009), with photographs of both the exposed soil materials and the sites to be included

(vi) the soil profile is to be described to the shallower of the following:

(1) a soil depth of 1 m, or

(2) the depth where bedrock, a natural hardpan, weather rock or a continuous gravel layer (any of which would ordinarily preclude penetration by plant roots) are intercepted

(vii) at those investigation sites where detailed soil profile descriptions are not undertaken, the investigation site is to be described and photographed, and the soil profile examined and described to a depth sufficient to:

(1) allow the soil to be assigned to an order and suborder under the Australian Soil Classification (Isbell 1996); and

(2) be accurately assigned to a soil unit represented in the disturbance area.

(viii) soil samples are to be collected at a minimum of 50 per cent of the investigation sites where detailed soil profile descriptions are made, with those samples to be:

(1) collected at the following profile depths:

(A) 0.0 - 0.1 m

(B) 0.2 - 0.3 m

(C) 0.5 - 0.6 m; and

(D) 0.8 - 0.9 m

(ix) packaged, transported and stored in accordance with recommendations in Brown, A.J., (1999), *Soil sampling and sample handling for chemical analysis, in Soil Analysis: An interpretation manual,* eds. Peverill, K.I., Sparrow, L.A. & Reuter, D.J., CSIRO; or any specific advice provided by the laboratory that will be analysing the samples; and

(x) analysed at a soil analysis laboratory providing NATA or ASPAC accredited analyses for the analytes and laboratory methods specified in Table A1 (below).

(c) Concurrent with the preceding survey conditions, in order to establish reference sites (being, sites that will not be, or have not been, distributed by mining activities) in line with the requirements of Condition 6(b), the following requirements are also to be met:

(i) detailed soil profile descriptions must be provided for at least three reference sites characterising each soil map unit identified in the land resource survey; and

(ii) soil samples must be analysed for at least three reference sites representing each soil type identified in the land resource survey.

(d) Each of the land units identified in the land resource survey is to be assigned a land suitability classification.

The assigned land suitability classification is to be consistent with the relevant limitation description or criteria in the following publications:

(i) where land units have historically supported cropping*:

the suitability framework for the Eastern Downs area provided in the *Regional Land Suitability Frameworks for Queensland* (DNRM & DSITIA, 2013), with the candidate crops for the classifications to include dryland cereal and grain crops (i.e. wheat, oats, barely and sorghum), sunflower and chickpeas.

(ii) where land units have historically been used for grazing:*

the suitability framework for beef cattle grazing provided in Table 2.2 in the Land suitability assessment techniques, in Part B of *Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland* (DME, 1995).

(*Historic land use is to be determined on the basis of the dominant land use for that land unit depicted in the 1999 mapping produced for the *Queensland Land Use Mapping Program* (i.e. QLUMP99.)

(e) Following the completion of the land resource survey, and prior to the commencement of the project's operations, a detailed report, including land resource and land suitability maps of the disturbance area, is to be produced and provided to the Coordinator-General.

That report and its associated maps must:

(i) be prepared and certified by an appropriately qualified person

(ii) document the data and information relating to the above listed items (a) to (d); and be submitted to the Coordinator-General for review and approval.

The Coordinator-General is to have jurisdiction for this condition.

Condition 7. Rehabilitation of disturbed land

(a) Rehabilitation is to be undertaken so as to establish discrete land units (that is, no unjustified mixing of soil material from different land units) in the disturbed areas to be rehabilitated ('rehabilitation area'), each capable of ultimately being assigned a specific post-disturbance land use suitability.

(b) The rehabilitation of disturbed land is to result in the affected land units being able to support the best post-disturbance land use possible. The post-disturbance land suitability of each land unit is to:

(i) represent that achievable on an ongoing basis

(ii) be obtainable without the use of irrigation; and

(iii) be such that collectively at least 50 per cent of the total area of disturbed land originally meeting or exceeding the criteria for either Class 3 grazing land or Class 4 cropping land still meet or exceed those classifications.

(c) Prior to commencement of mining operations, the project proponent must:

(i) identify parcels of land, unaffected by mining operations (the land can be land owned by the proponent/associated company), that are able to provide at least three separate reference sites for each land suitability class to be represented in rehabilitated areas; and

(ii) undertake investigations at each reference site, consistent with the requirements in Condition 6(b): Land resource survey, and sufficient to demonstrate that each reference site satisfies the criteria for the applicable suitability class.

(d) Within nine (9) months of the commencement of project operations, the proponent is to submit for approval by the Coordinator-General a set of rehabilitation success criteria.

(e) The set of rehabilitation success criteria is to include elements specific to each land suitability class identified in the land resource survey undertaken in accordance with Condition 6: Land resource survey.

(f) Rehabilitation success criteria should include measures related to the following:

  (i) landform

  (ii) soil physical and chemical attributes

  (iii) erosive soil loss (estimated using the Revised Universal Soil Loss Equation (RUSLE))

  (iv) vegetative cover

  (v) plant density

  (vi) dry matter yield of harvestable material; and

  (vii) botanical composition (pasture) or weed population characteristics (crops).

(g) The rehabilitation and restoration of the disturbed land is to be subject to ongoing and regular monitoring. At a minimum, the monitoring program is to:

  (i) require monitoring twice in a calendar year (in spring and autumn in areas sown to pasture and at early flowering and at harvest in cropped areas)

  (ii) provide a statistically valid sampling intensity for assessing compliance with the rehabilitation success criteria in each land unit (note: a sampling intensity providing 95 per cent confidence level that the sample mean values reported for a land unit are within ±20 per cent of the true mean for that unit.)

  (iii) include relevant climatic data, including rainfall, for both the rehabilitation and reference sites; and

  (iv) by the way of comparison with the corresponding reference sites, determine progress in meeting restoration success criteria, including identifying any failings; and proposing means to rectify those failings.

The Coordinator-General is to have jurisdiction for this condition.

Condition 8. Reports and management plans

(a) One year after commencement of rehabilitation works required by Condition 7, and then annually from that date, the proponent must publish the results of the monitoring program for the rehabilitation areas, which were obtained over the preceding year, in an annual report, with that report to be:

  (i) submitted to the Coordinator-General

  (ii) available for download on the project proponent's website or similar publicly-accessible internal portal, and

  (iii) made available in a printed form.

(b) Subsequent to complying with Condition 6: Land resource survey, and prior to the commencement of project operations, the proponent must submit to and have approved by the Coordinator-General, the following documents:

  (i) Final Land Use and Rehabilitation Plan; and

  (ii) Topsoil Management Plan.

TableA1 Soil chemical and physical analytes and recommended methods

Analyte	Units	Methodology
$pH_{1:5}$		Method 4A1 in Rayment & Lyons (2011)
$EC_{1:5}$	dS/m	Method 3A1 in Rayment & Lyons (2011)

Analyte	Units	Methodology
Chloride	mg/kg	Method 5A1, 5A2, 5A3 or 5A4 in Rayment & Lyons (2011)
Soil organic carbon	%	Method 6A1 in Rayment & Lyons (2011)
Total nitrogen	%	Method 7A1, 7A2, 7A3, 7A4 or 7A5 in Rayment & Lyons (2011)
Nitrate nitrogen	mg N/kg	Most appropriate method with 7B or 7C prefix in Rayment & Lyons (2011)
Total phosphorus	mg/kg	Method 9A1 in Rayment & Lyons (2011)
Bicarbonate phosphorus	mg/kg	Method 9B1 or 9B2 in Rayment & Lyons (2011)
Cation exchange capacity	$cmol_c/kg$	Most appropriate method in Table 15.2 in Rayment & Lyons (2011)
Exchangeable Ca, Mg, K and Na	$cmol_c/kg$	Most appropriate method in Table 15.2 in Rayment & Lyons (2011)
Soil particle size distribution for size ranges of >2, 2 – 0.2, 0.2 – 0.02, 0.02 – 0.002, and <0.002 mm diameters	% mass	Most appropriate method in Chapter 17 in McKenzie et al. (2002)
Soil moisture @ -1500 kPa	%	Method 504.01, 504.02 or 504.03 in McKenzie et al. (2002)
Exchangeable sodium percentage	%	Calculation from exchangeable Ca, Mg, K and Na
Exchangeable Ca: Exchangeable Mg		Calculation from exchangeable Ca, Mg, K and Na
Emerson aggregate stability	class	Method 513.01 in McKenzie et al. (2002)

Condition 9. Impacted land

(a) The proponent (or an associated entity) for the project is to secure land equivalent to the amount of land that will be permanently lost to agricultural use as a result of residual mine voids ('equivalent land').

(b) The base-case total equivalent land amount required is 457 hectares, being mine void area estimated to remain post-mining described in the August 2014 *Additional information to the EIS: New Acland Coal Mine Stage 3 Project.* The total equivalent land amount area may be further refined as mine planning progresses.

(c) The equivalent land required is to be like for like; so that:

(i) the amount of permanently impacted land in the avoid areas defined as priority agricultural land use (PALU) (e.g. cropping); and

(ii) the amount of permanently impacted land in the void areas defined as non-PALU (e.g. grazing)

—is the amount of equivalent PALU and non-PALU land required to be secured elsewhere.

The equivalent land may be secured across separate parcels of land.

(Note: PALU and non-PALU are as mapped in the State Government Queensland land use mapping program (QLUMP)).

(d) Each equivalent land area must be legally secured by registration of a covenant on the land title.

(e) Commencement of covenants may be staged, with covenants for all equivalent land for each of the mine pits to be in place within one year from the start of operations for that pit.

(f) The proponent is to notify the Coordinator-General within 20 business days of commencing operations in each of the mining pits. The notification is to include the predicted final void area for the pit/pits as the measure for the amount of equivalent land required.

(g) The proponent is to notify the Coordinator-General within 20 business days of securing all covenants for the equivalent land areas for each mining pit.

(h) Concurrent with Conditions 9 (f) and (g), a report on secured equivalent land is to be submitted to the Coordinator-General for approval. The report is required to confirm how the land areas satisfy the equivalent land requirements of this condition.

(i) The equivalent PALU land areas are to be maintained as PALU until surrender of the mining lease for the project is approved.

(j) The equivalent non-PALU land areas are to be maintained as non-PALU until surrender of the mining lease for the project is approved.

(k) The proponent is required to ensure the equivalent land areas are improved from the time of securement to enhance the productivity of the land uses (for example: soil erosion, pest and weeds, management, use).

The Coordinator-General is to have jurisdiction for this condition.

Groundwater

Condition 10. Groundwater management and monitoring program

(a) A Groundwater Management and Monitoring Program must be developed and certified by an appropriately qualified person which addresses all phases of the mining operation approved under the project's environmental authority ('project's EA').

(b) The groundwater management and monitoring program must be provided to the administering authority for the *Water Act 2000* for approval in accordance with the requirements of the baseline monitoring program in relevant conditions of the project's EA.

(c) The groundwater management and monitoring program must be developed to ensure that plan meets the following objectives:

  (i) validation of groundwater numerical model (including review of boundary and recharge conditions) to refine and confirm accuracy of groundwater impacts predicted;

  (ii) groundwater level monitoring in all identified geological units present across and adjacent to the mine site confirm existing groundwater flow patterns and monitor drawdown impacts;

  (iii) estimation of groundwater inflow to mine workings and surface water ingress to groundwater from flooding events using the groundwater model;

  (iv) monitoring in any identified source aquifers for alternative water supplies, relevant to any approval issued under the *Water Act 2000* for the project;

  (v) monitoring of geological units throughout all phases of project life including for the period post-closure of required by the administering authority for the *Water Act 2000*;

  (vi) identifying monitoring bores that will be replaced due to mining activities; and

  (vii) to ensure all potential groundwater impacts from mine dewatering and mine water and waste storage facilities (artificial recharge) are identified, mitigated and monitored.

  (viii) a copy of the approved groundwater management and monitoring program is to be provided to the Commonwealth Department of Agriculture, Water and the Environment.

DRDMW is to have jurisdiction for this condition.

Condition 11. Monitoring Program Review

(a) The groundwater management and monitoring program required under Condition 10 must be reviewed by an appropriately qualified person in conjunction with the Groundwater Model Review (Condition 12, below) with a report provided on the outcome of the review to the administering authority within two years from the issuing of the project's EA and mining lease/s required for the project; and then no later than 1 July every three (3) years following. The review must include:

(i) an assessment of the outcome of the groundwater management and monitoring program against the objectives in the project's EA

(ii) a review of the adequacy of the monitoring locations, frequencies and groundwater quality triggers specified in the project's EA

(iii) a review of the adequacy of the groundwater monitoring program to support the requirement outlined in Condition 12.

DRDMW is to have jurisdiction for this condition.

Condition 12. Groundwater model review

(a) The numerical model in the report titled 'Groundwater Model Technical addendum' – New Acland Coal Stage 3 Project (AEIS, 2014) must be reviewed to incorporate groundwater monitoring data and measured mine dewatering volumes from the groundwater management and monitoring program in the project's EA.

(b) The review must be conducted within 2 years of commencement of any mining activities associated with any mine box cut excavation for the project and at least every 3 years thereafter, or at other intervals specified by the administering authority for the *Water Act 2000* in writing, if the observed groundwater levels are not consistent with those predicted by the latest version of the groundwater model.

(c) The review must provide a revised numerical groundwater model outlined in Condition 12(a), which incorporates additional relevant data associated with the Oakey Creek alluvial aquifer. The revised model must include:

(i) review of the hydrogeological conceptualisation used in the previous model

(ii) an update of the predicted impacts

(iii) revised water balance model

(iv) review of assumptions used in the previous model

(v) predictions of changes in groundwater levels for a range of scenarios

(vi) information about any changes made since the previous model, including data changes

(vii) a report outlining the justification for the refined model and the outputs of the refined model

(viii) an evaluation of the accuracy of the predicted changes in groundwater levels and recommended actions to improve the accuracy of model predictions

(d) A report outlining the findings and any recommendations from the review under Condition 12, must be completed by an appropriately qualified person and submitted to the administering authority for approval no later than three (3) months after the commencement of the review.

(e) A copy of the approved report relating to Conditions 11 and 12 is to be provided to the Commonwealth Department of Agriculture, Water and the Environment.

DRDMW is to have jurisdiction for this condition.

Ecology

Condition 13. Environmental Offset Strategy (EOS)

(a) The proponent must prepare a detailed EOS that:

(i) details any offset requirements conditioned by Commonwealth Minster for the Environment in any approval for the project under the *Environment Protection and Biodiversity Conversation Act 1999* (EPBC Act)

(ii) details offsets required to address significant residual impact on matters of state environmental significance consistent with (a)(i)

(iii) includes:

(1) a detailed description of the land to which the plan relates, the values affected and the extent and likely timing of impact on each value

(2) evidence that values impacted can be offset

(3) the offset delivery mechanism(s) comprising one or more of: land-based offsets; direct benefit management plans; offset transfer and/or offset payments.

(iv) confirms a legally binding mechanism that ensures protection and management of offset areas will be applied

(v) includes an offset proposal for impacts on koala habitat. The offset must be land-based and benefit the local koala population.

(b) The offsets strategy must be provided to the Coordinator-General for approval within 60 days after an approval decision under the EPBC Act

(c) The approved offsets strategy must be implemented if the project proceeds.

The Coordinator-General is to have jurisdiction for this condition.

Condition 14. Pre-clearance fauna and flora surveys

(a) Prior to commencement of any project construction activities, the proponent must conduct pre-clearance ecological surveys of areas to be impacted, consistent with:

(i) Queensland state government survey guidelines

(ii) Requirements of the *Nature Conservation Act 1992*

(iii) Australian government threatened species guidelines.

(b) The surveys must be sufficient to identify the extent to which the following will be unavoidably impacted by the project:

(i) protected wildlife listed under the *Nature Conservation Act 1992*

(ii) matters of state environmental significance as defined by the State Planning Policy

(iii) MNES as listed under the EPBC Act.

(c) The surveys must include areas of potential foraging, roosting or nesting habitat for the painted honeyeater (*Grantiella picta*). If the painted honeyeater is found during pre-clearance surveys, then any significant impacts on its habitat may require additional offsets in accordance with the EOS for the project.

(d) If protected plants are found during pre-clearance surveys, then impacts may require a permit under the *Nature Conservation Act 1992* and offsets under the *Environmental Offsets Act 2014*.

(e) Should additional MSES species be located that were not previously identified during field surveys, the development of management plans and/or additional offsets may be required to address any significant residual impacts for matters of state environmental significance in accordance with the EOS for the project.

(f) Notification of the discovery of additional protected plants or MSES species that will be impacted is to be provided to the administering authority within five business days of the discovery. The proponent is required to propose how the species is to be managed and to seek advice from DES on the undertaking.

(g) Survey results must be included in an updated EOS for the project.

DES is to have jurisdiction for this condition.

Condition 15. Lagoon Creek Conservation Zone Management Plan (CZMP)

(a) The proponent is required to implement and maintain the Lagoon Creek Conservation Zone.

(b) The extent of the Lagoon Creek Conservation Zone is to be as described in Figure 4-1 Rehabilitation Plan, Appendix J6, EIS, January 2014. The CZMP specifically addresses the Lagoon Creek corridor and the remnant and rehabilitation zone on Bottle Tree Hill as shown on Figure 4-1.

(c) The proponent must develop and implement a Lagoon Creek Conservation Zone Management Plan (CZMP) that aims to achieve:

  (i) control and management (including fencing) of stock from the area

  (ii) a program of weed management of assist natural regeneration of native species and protect remnant areas from impact of weed invasion;

  (iii) suitable monitoring and maintenance strategies.

(d) There is to be a revegetated area of at least 50 metres either side of the high bank of Lagoon Creek within the conservation zone. Should instream storage such as a dam or other infrastructure be constructed within the conservation zone, the proponent must ensure no net loss of the required buffer. The holder of the project's EA is authorised to construct and maintain an appropriately engineered haul road crossing of Lagoon Creek as part of the access route for coal haulage. The haul road crossing structure within Lagoon Creek must not significantly impede the ephemeral flow regime or create a barrier for fish movement during periods of flow within the creek.

TableA.2 Lagoon Creek Rehabilitation Targets

Site-based condition attributes*	Target after 10 years
Recruitment of woody perennial species	3 overstorey species present as regeneration
Native plant species richness	9 species present—specific attention to trees that provide koala habitat
Tree canopy cover (%)	20%
Tree canopy height	9.5m
Shrub layer cover (%)	3%
Native perennial grass cover (%)	65%
Native perennial forb and non-grass cover (%)	7.5%
Native annual grass, forb and non-grass cover (%)	2.5%
Large trees	35 large trees
Fallen woody material	None proposed
Weed cover (%)	<20% weed cover
Litter cover (%)	None proposed

*Neldner, V.J. et al. (2012) *Methodology for Survey and Mapping of Regional Ecosystems and Vegetation Communities in Queensland*. Version 3.2. Updated August 2012. Queensland Herbarium, Queensland Department of Science, Information Technology, Innovation and the Arts, Brisbane. 124 pp.

(e) The date of commencement of the 10 year period for achieving the rehabilitation targets in Table A.2 is within two (2) months of the issuing of the project's EA and the obtaining of the mining leases for the project.

(f) Long term protection of values of the CZMP through establishing suitable tenure or other mechanism.

(g) The CZMP is to ensure that suitable monitoring and maintenance strategies are implemented and that the outcomes and progress of revegetation and management programs are published and updated on the company website.

(h) A progress report is to be provided to the authority administering the *Environmental Protection Act 1994* on an annual basis, including any actions required to address unsuccessful revegetation or translocation efforts. The outcomes of these actions are to be reported on in subsequent report/s.

DES is to have jurisdiction for this condition.

Condition 16. Koala Species Management Plan (KSMP)

(a) The proponent is to prepare and implement a KSMP for the project consistent with the requirements of the Nature Conservation (Koala) Conservation Plan 2006 and Management Program 2006-2016 (EPA 2006).

(b) The KSMP is required to address

(i) staff awareness training

(ii) the staging or limiting of vegetation clearance to what is required for safe and efficient mining operations

(iii) the exclusion of vegetation clearance between the hours of 6pm and 6am

(iv) the sequential clearance of trees under the guidance of licenced and experienced Koala Spotter to locate fauna prior to clearing of habitat and allow their safe dispersal

(v) identification of fauna movement corridors and the use of exclusion fencing around dangerous or high risk operational mining area or transport routes

(vi) for less high risk areas, identification and implementation of suitable fauna movement control devices (e.g. fences) and management responses, and

(vii) rehabilitation within the Lagoon Creek Conservation Zone and across the balance of the site with koala food trees.

(c) The recommendations and actions in the project's approved Environmental Management Plan (EM Plan), and the project's approved Conservation Zone Management Plan are to be consistent with the KSMP.

(d) The KSMP is required to be provided the authority administering the *Nature Conservation Act 1992* for approval at least six months prior to the commencement of clearing or construction works for the project.

DES is to have jurisdiction for this condition.

Social impacts

Condition 17. Social Impact Management Report (SIMR): pre-construction

(a) Commencing from the date of the Coordinator-General's Evaluation Report and up to the date of commencement of construction, every six months the proponent is to provide the SIMR to the Coordinator-General. The reports are to be made publicly available by the proponent.

(b) The SIMR is to contain:

(i) the actions taken to inform the community about project impacts and show that community concerns about project impacts have been taken into account

(ii) the actions, outcomes and adaptive management strategies to avoid, manage or mitigate project-related impacts on community health safety and social infrastructure.

The Coordinator-General is to have jurisdiction for this condition.

Condition 18. SIMR: construction and operation

(a) From commencement of construction, the proponent is to provide to the Coordinator-General on an annual basis for a period of five years, a SIMR (construction and operation). The reports are to be made publicly available by the proponent.

(b) The SIMR (construction and operation) is to describe:

(i) the actions taken to inform the community about project impacts and show that community concerns about project impacts have been taken into account.

(ii) the actions, outcomes and adaptive management strategies to avoid, manage or mitigate project-related impacts on community health safety and social infrastructure

(iii) the actions, outcomes and adaptive management strategies to avoid, manage or mitigate project-related impacts on local and regional housing markets

(iv) the actions, outcomes and adaptive management strategies to enhance local employment, training and development opportunities.

The Coordinator-General is to have jurisdiction for this condition.

Glossary for Appendix 1

appropriately qualified person	A person who has professional qualifications, training, skills or experience relevant to the nominated subject matter and who can give an assessment, advice and analysis of pertinent data and information using protocols, standards, guidelines, methods and literature that are acceptable to the Coordinator-General.
the project	The project of the size and scope as defined in the Coordinator-General's report for the New Acland Coal Mine Stage 3 project 2014
construction of the project	Commencement of any construction works related to the project
operations of the project	Commences when excavation of any of the pits required for the New Acland Coal Mine Stage 3 project begins
Priority Agricultural Land Use	(PALU) is a highly productive agriculture land use (including cropping, perennial and seasonal horticulture, production from irrigated agriculture and plantations, and intensive horticulture) identified in a regional plan for an area of regional interest
non-PALU	Non-PALU is an agricultural land use not identified as a PALU in the Darling Downs Regional Plan, and includes grazing modified and native vegetation, production forestry, intensive animal husbandry and dairy.

Appendix 2. Coordinator-General's Stated Conditions

This appendix includes the Coordinator-General's stated conditions for the draft environmental authority for the New Acland Coal Mine Stage 3 project under the *Environmental Protection Act 1994* and are stated pursuant to section 47C of the *State Development and Public Works Organisation Act 1971*.

Schedule A. General

A1 This environmental authority authorises environmental harm referred to in the conditions. Where there is no condition or this environmental authority is silent on a matter, the lack of a condition or silence does not authorise environmental harm.

A2

(a) The mining activities authorised under this environmental authority are those (subject to the limits in this condition and other conditions in this environmental authority):

(i) generally in accordance with Figure 1 – Project overview; or

(ii) authorised by conditions A2(b), A2(c) or A2(d).

(b) The holder must not:

(i) disturb for pits, slope batters and out of pit dumps, more than 1,446 ha (approximately) on MLA50232 and 123 ha (approximately) on ML50216; or

(ii) disturb any land other than for minor infrastructure in the 'exclusion' zones depicted on Figure 1 – Project overview; or

(iii) disturb any land other than for minor infrastructure and infrastructure represented on Figure 1 unless:

(1) authorised in another condition of this environmental authority; or

(2) such disturbance is within ML50216 or ML50170 on land lawfully disturbed before commencement of this environmental authority and which, as at 11 May 2022, had not been rehabilitated.

(c) Disturbance of land for minor infrastructure is authorised only if:

(i) the holder has submitted to the administering authority information showing the nature, location and extent of such disturbance and associated infrastructure; and

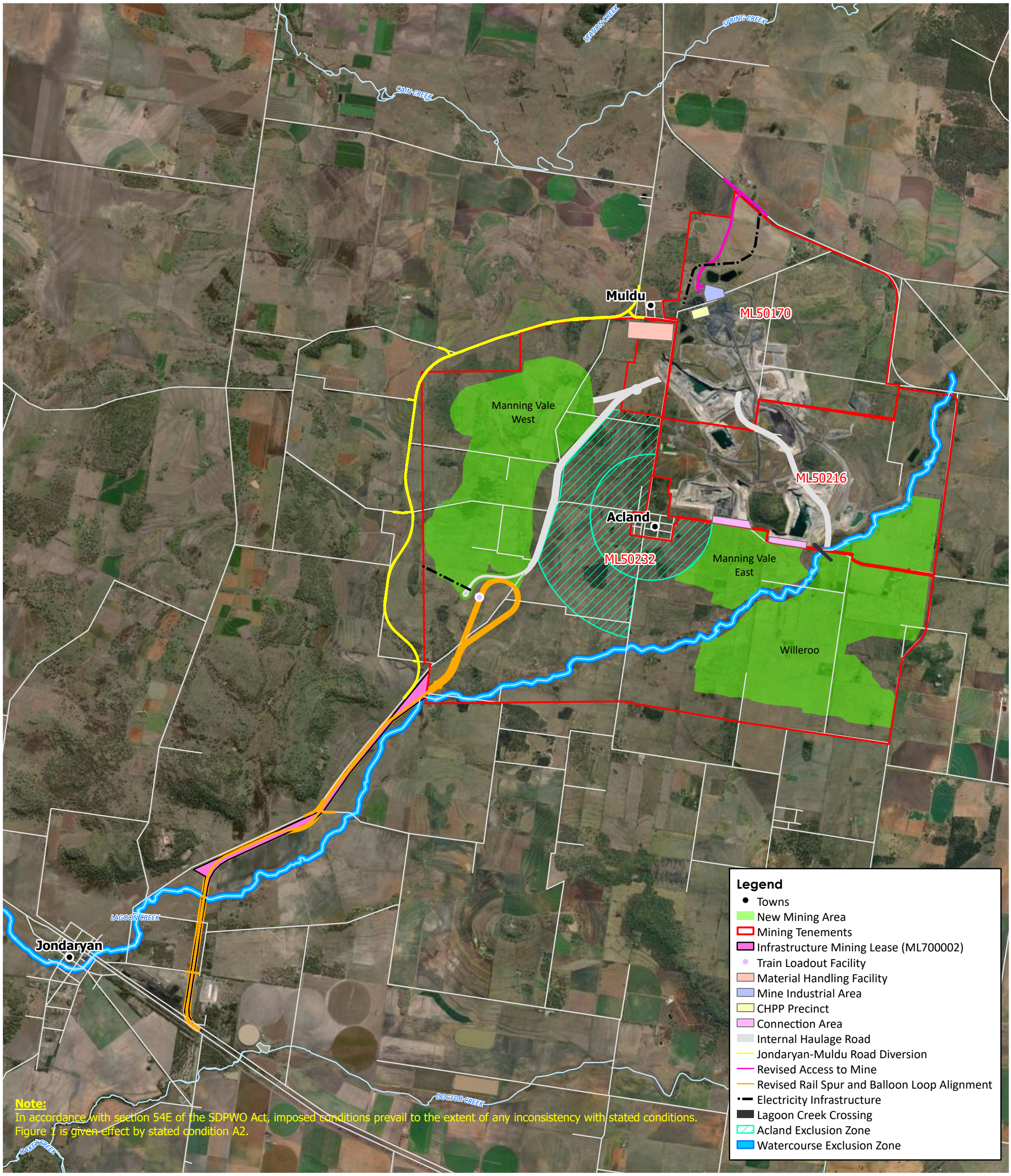
(ii) the administering authority:

(1) has informed the holder that it does not regard the impacts require an amendment to this environmental authority; or

(2) has informed the holder that the administering authority requires the holder to make an application pursuant to Chapter 5 Part 7, *Environmental Protection Act 1994* and such an application is made and approved by the administering authority; or

(3) has otherwise amended this environmental authority to authorise the disturbance.

(d) Despite condition A2(b)(iii), the holder of this environmental authority may disturb land for the construction of the haul road and Lagoon Creek crossing represented on Figure 1 – Project overview.



Imagery: August 2021, 10cm resolution

N

0 250 500 1,000 1,500 2,000

Metres

Map created at: **A3**

PCS: GDA 1994 MGA Zone 56

Coordinate system: GCS GDA 1994

Datum: GDA 1994

New Acland Coal mine project
Figure 1 – Project overview

Map produced by the Department of State Development, Infrastructure, Local Government and Planning
Spatial Services Unit, 19/05/2022

COORDINATOR-GENERAL

Queensland Government

Path: S:\Projects\CPD\20220309_NewAcland_inspect\20220309_NewAcland_inspect.aprx

A3 The holder of this environmental authority must:

(a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority

(b) maintain such measures, plant and equipment in a proper and efficient condition

(c) operate such measures, plant and equipment in a proper and efficient manner

(d) ensure all instruments and devices used for the measurement or monitoring of any parameter under any condition of this environmental authority are properly calibrated.

Monitoring

A4 Except where specified otherwise in another condition of this environmental authority, all monitoring data, records or reports required by this environmental authority must be kept for a period of not less than five (5) years.

A5 Upon request from the administering authority, copies of all monitoring data, records and reports will be made available and provided to the administering authority's nominated office within 10 business days or an alternative timeframe agreed between the administering authority and the holder.

A6 Any management or monitoring plans, systems or programs required to be developed and implemented by a condition of this environmental authority should be reviewed for effectiveness in minimising the likelihood of environmental harm on an annual basis, and amended promptly if required, unless a particular review date and amendment program is specified in the plan, system or program.

Risk management

A7 The holder of this environmental authority must develop and implement a risk management system for mining activities which mirrors the content requirement of the Standards Australia Risk management – Principles and guidelines (AS/NZS ISO 31000:2009), or the latest edition of a Standards Australia for risk management, to the extent relevant to environmental management, prior to the commencement of mining activities.

Notification of emergencies, incidents and exceptions

A8 The holder of this environmental authority must notify the administering authority by written notification within 24 hours after becoming aware of any emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with, the conditions of this environmental authority.

A9 Within 10 business days following the initial notification of an emergency or incident, or receipt of monitoring results, whichever is the latter, further written advice must be provided to the administering authority, including the following:

(a) results and interpretations of any samples taken and analysed

(b) outcomes of actions taken at the time to prevent or minimise unlawful environmental harm

(c) proposed actions to prevent a recurrence of the emergency or incident.

Complaints

A10 The holder of this environmental authority must record all environmental complaints received about the mining activities including:

(a) name, address and contact number for of the complaint

(b) time and date of complaint

(c) reasons for the complaint

(d) investigations undertaken

(e) conclusions formed

(f) actions taken to resolve the complaint

(g) any abatement measures implemented

(h) person responsible for resolving the complaint; and

(i) records of any referrals to an independent counselling service.

The information as outlined in condition A10(a) to (i) with the consent of the complainant must be sent to the administering authority (and the complainant) within 28 days of the action taken to resolve the complaint.

A11 The holder of this environmental authority must, when requested by the administering authority, undertake relevant specified monitoring within a reasonable timeframe nominated or agreed to by the administering authority to investigate any complaint of environmental harm. The results of the investigation (including an analysis and interpretation of the monitoring results) and abatement measures, where implemented, must be provided to the administering authority within 10 business days of completion of the investigation, or no later than 10 business days after the end of the timeframe nominated by the administering authority to undertake the investigation.

Third-party reporting

A12 The holder of this environmental authority must:

(a) within one (1) year of the commencement of this environmental authority, obtain from an appropriately qualified person a report on compliance with the conditions of this environmental authority

(b) obtain further such reports at regular intervals, not exceeding three (3) yearly intervals, from the completion of the report referred to above; and

(c) provide each report to the administering authority within 90 days of its completion.

A13 Where a condition of this environmental authority requires compliance with a standard, policy or guideline and the standard is amended or changed subsequent to the issue of this environmental authority, the holder of this environmental authority must:

(a) comply with the amended or changed standard, policy or guideline within two (2) years of the amendment or change being made, unless a different period is specified in the amended standard or relevant legislation, or where the amendment or change relates specifically to regulated structures referred to conditions H3 to H36, the time specified in that condition

(b) until compliance with the amended or changed standard, policy or guideline is achieved, continue to remain in compliance with the corresponding provision that was current immediately prior to the relevant amendment or change.

Schedule B. Air

Dust and particulate matter monitoring

Ba The holder of this environmental authority must ensure that air emissions generated by the mining activities do not cause the criteria in **Table A – Air quality monitoring requirements** to be exceeded at a sensitive place or commercial place

Note: the measurement of air emissions for a sensitive place or commercial place is either:

(a) at that place (if measured there); or

(b) at the monitoring location representative (whether by reason of correlation or otherwise) of the sensitive place or commercial place (where there is no measure at the sensitive place or commercial place).

B1 All air quality indicators listed in **Table A – Air quality monitoring requirements** must be monitored at the locations and at the frequency listed in **Table A – Air quality monitoring requirements** in accordance with the following methodologies:

(a) for dust deposition of 120 milligrams per square metre per day, averaged over one (1) month, when monitored in accordance with the most recent version of Standards Australia AS/NZS 3580.10.1

Methods for sampling and analysis of ambient air - Determination of particulate matter - Deposited matter - Gravimetric method.

(b) for a concentration of particulate matter with an aerodynamic diameter of less than 10 micrometres (PM_{10}) suspended in the atmosphere of 50 micrograms per cubic metre over a 24-hour averaging time[1] and 25 micrograms per cubic metre over a one (1) year averaging time, when monitored in accordance with the most recent version of either:

(i) Standards Australia AS/NZS 3580.9.6 Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – PM_{10} high volume sampler with size-selective inlet - Gravimetric method; or

(ii) Standards Australia AS/NZS 3580.9.9 Methods for sampling and analysis of ambient air - Determination of suspended particulate matter - PM_{10} low volume sampler - Gravimetric method; or

(iii) Standards Australia AS 3580.9.8 Methods for sampling and analysis of ambient air - Determination of suspended particulate matter - PM_{10} continuous direct mass method using a tapered element oscillating microbalance analyser;

(c) for a concentration of particulate matter suspended in the atmosphere of 80 micrograms per cubic metre over a 24-hour averaging time and 90 micrograms per cubic metre over a one (1) year averaging time, when monitored in accordance with the most recent version of AS/NZS3580.9.3:2003 Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – Total suspended particulate matter (TSP) – High volume sampler gravimetric method.

(d) for a concentration of particulate matter with an aerodynamic diameter of less than 2.5 micrometres ($PM_{2.5}$) suspended in the atmosphere of 25 micrograms per cubic meter over a 24 hour averaging time and 8 micrograms per cubic metre over a one (1) year averaging time, when monitored in accordance with:

(i) the most recent version of Standards Australia AS/NZS 3580.9.12 Methods for sampling and analysis of ambient air, Determination of suspended particulate matter – $PM_{2.5}$ beta attenuation monitors; or

(ii) the most recent version of Standards Australia AS/NZS 3580.9.13 Methods of sampling and analysis of ambient air, Determination of suspended particulate matter – $PM_{2.5}$ continuous direct mass method using a tapered element oscillating microbalance monitor; or

(iii) another method as agreed to in writing by the administering authority.

[1]These limits are based upon relevant air quality objectives contained in *the Environmental Protection (Air) Policy 2019* and may be automatically amended to reflect any amendment or replacement of the relevant air quality objective in the *Environmental Protection (Air) Policy 2019*.

B2 If monitoring indicates the potential for exceedance of the relevant limits in conditions Ba and B1 then the environmental authority holder must immediately implement dust abatement measures to avoid exceeding the relevant limits.

Air emissions management

B3 An Air Emissions Management Plan must be developed by a suitably qualified and experienced person in relation to air emissions and implemented for all stages of mining. The Air Emissions Management Plan must be submitted to the administering authority for review and approval:

(a) within three (3) months of the grant of MLA50232 and/or MLA700002, and at intervals not exceeding two (2) years thereafter; and

(b) prior to the environmental authority holder producing more than 5.1 million tonnes (Mt) of product coal in a calendar year.

B4 The Air Emissions Management Plan must incorporate a program for continuous improvements for the management of dust resulting from mining operations with respect to, but not limited to:

(a) monitoring locations acting as and continuing to act as suitable representative sites for sensitive places (if there is no monitor at a particular sensitive place);

(b) the collection of air quality and meteorological data in accordance with **Table A – Air quality monitoring requirements**;

(c) monitoring PM_{10} trends at two (2) locations[1];

(d) a trigger action response plan that requires the environmental authority holder to investigate, mitigate and manage TSP caused by mining activities at any sensitive place or commercial place when monitoring indicates exceedance of 80 micrograms per cubic metre over a 24-hour averaging time;

(e) a forecasting system that provides daily predictions of upcoming meteorological conditions in order to identify adverse meteorological conditions likely to produce elevated levels of dust including PM_{10} at a sensitive place or commercial place due to the mining activities;

(f) a dust control strategy which activates a timely implementation of dust control management actions aimed to avoid or minimise elevated levels of dust including PM_{10} at a sensitive place or commercial place due to mining activities;

(g) annual review of the Air Emissions Management Plan including its adequacy and effectiveness in avoiding and minimising air emissions and dust at a sensitive place or commercial place;

(h) a protocol and register for the recording of requests and installation of first flush diverter systems; and

(i) a protocol for the transport of basalt material.

[1]Trend monitoring as required by condition B4(c) can be undertaken using different instruments and methods from those specified in **Table A – Air quality monitoring requirements**.

B5 The air quality monitoring program listed in **Table A – Air quality monitoring requirements** must be reviewed by a suitably qualified and experienced person(s) as part of review of the Air Emissions Management Plan and a report must be provided to the administering authority:

(a) within two (2) years and three (3) months of the grant of MLA50232 and MLA700002, and at intervals not exceeding two (2) years thereafter: and

(b) prior to the environmental authority holder producing more than 5.1 Mt of product coal in a calendar year.

The review must include:

(i) the effectiveness of the monitoring network:

(ii) the frequency and cause of any exceedances of air quality objectives measured by the monitoring program over a period of at least two (2) years:

(iii) dust complaints

(iv) future progression of the mining activities;

(v) locations of sensitive receptors relative to the mining activities;

(vi) mining operating modes; and

(vii) the suitability of the locations, types and parameters of the monitoring network.

B6 The air quality monitoring program in **Table A – Air quality monitoring requirements** may be revised where recommended in a revised Air Emissions Management Plan provided pursuant to condition B3 or as a result of the review in condition B5 and with the approval of the administering authority. Any additional monitors recommended in a revised Air Emissions Management Plan must be installed and must be operational as soon as practicable after receiving approval and, in the case of an approval following a revised Air Emissions Management Plan pursuant to conditions B3(b) or B5(b), prior to the environmental authority holder producing more than 5.1 Mt of product coal in a calendar year.

Table A – Air quality monitoring requirements

Monitoring location*	Air quality indicator	Instrument	Frequency	Air quality limit	Nuisance limit	Monitoring method
1,2 (Acland)	$PM_{2.5}$	BAM or TEOM	Continuous	25µg/m^3 (24 hr avg) 8µg/m^3 (annual)		AS/NZS 3580.9.12- 2013 AS/NZS 3580.9.13:2013
	PM_{10}	TEOM	Continuous	50µg/m^3 (24 hr avg) 25µg/m^3 (annual)		AS 3580.9.8-2008
	TSP#	Hi-Vol Sampler^	24hr, 1 day in 6	90µg/m^3 (annual)	80µg/m^3 (24 hr avg)	AS/NZS 3580.9.3:2003
		Modified TEOM#	Continuous	90µg/m^3 (annual)	80µg/m^3 (24 hr avg)	Modified TEOM
	Insoluble solids	Dust gauge	Monthly	120mg/m^2/day	120mg/m^2/day	AS/NZS 3850.10.1:2003
	Wind speed and direction		Continuous			AS 3580:14-2011
	Temperature 2m and 10m Temperature gradient		Continuous			AS 3580:14-2014
	Precipitation		Continuous			AS 3580:14-2014
	Relative humidity		Continuous			AS 3580:14-2014
	Solar Radiation		Continuous			AS 3580:14-2014
	Net Radiation		Continuous			AS 3580:14-2014
7,8 (or an alternative location to the north of the Stage 3 New Acland mine identified in the Air Emissions Management Plan developed pursuant to conditions B3)	PM_{10}	TEOM	Continuous	50µg/m³ (24 hr avg) 25µg/m³ (annual)		AS/NZS 3580.9.8-2008
	TSP	Hi-Vol Sampler^	24hr, 1 day in 6	90µg/m³ (annual)	80µg/m³ (24 hr avg)	AS/NZS 3580.9.3:2003
	Insoluble solids	Dust gauge	Monthly	120mg/m^3/day	120mg/m^2/day	AS/NZS 3850.10.1:2003
16 (East) (Acland-Silverleigh Road)	PM10	TEOM	Continuous	50µg/m³ (24 hr avg) 25µg/m³ (annual)		AS 3580.9.8-2008
	TSP#	Hi-Vol Sampler^	24hr, 1 day in 6	90µg/m³ (annual)	80µg/m³ (24 hr avg)	AS/NZS 3580.9.3:2003
	Insoluble solids	Dust gauge	Monthly	120mg/m^2/day	120mg/m²/day	AS 3850.10.1.2003
38, 39 (or an alternative	PM10	TEOM	Continuous	50µg/m³ (24 hr avg)		AS/NZS 3580.9.8-2008

Monitoring location*	Air quality indicator	Instrument	Frequency	Air quality limit	Nuisance limit	Monitoring method
location to the north-west of the Stage 3 New Acland mine identified in the Air Emissions Management Plan developed pursuant to condition B3				25µg/m³ (annual)		
	TSP	Hi-Vol Sampler^	24hr, 1 day in 6	90µg/m³ (annual)	80µg/m³ (24 hr avg)	AS/NZS 3580.9.3:2003
	Insoluble solids	Dust gauge	Monthly	120mg/m²/day	120mg/m²/day	AS/NZS 3850.10.1:2003
15 (East)	PM10	TEOM	Continuous	50µg/m³ (24 hr avg) 25µg/m³ (annual)		AS 3580.9.8-2008
	TSP	Hi-Vol Sampler^	24hr, 1 day in 6	90µg/m³ (annual)	80µg/m³ (24 hr avg)	AS/NZS 3580.9.3:2003
	Insoluble solids	Dust gauge	Monthly	120mg/m²/day	120mg/m²/day	AS/NZS 3850.10.1:2003
35,36 (west of mine site)	PM_{10}	TEOM	Continuous	50µg/m³ (24 hr avg) 25µg/m³ (annual)		AS/NZS 3580.9.8-2008
	TSP	Hi-Vol Sampler[1]	24hr, 1 day in 6	90µg/m³ (annual)	80µg/m³ (24 hr avg)	AS/NZS 3580.9.3:2003
	Insoluble solids	Dust gauge	Monthly	120mg/m²/day	120mg/m²/day	AS/NZS 3850.10.1:2003
37 (West) + (trend monitoring at 37 or an alternative location to the west of the Stage 3 New Acland mine identified in the Air Emissions Management Plan developed pursuant to Condition B3)	PM_{10}	Trend monitor capable of measuring PM_{10}	Continuous			
	TSP	Hi-Vol Sampler^	24hr, 1 day in 6			AS/NZS 3580.9.3:2003
	Insoluble solids	Dust gauge	Monthly			AS/NZS 3850.10.1:2003
44 (Northwest) + (trend monitoring at 44 or an alternative location to the north-west of the Stage 3 New Acland mine identified	PM_{10}	Trend monitor capable of measuring PM_{10}	Continuous			
	TSP	Hi-Vol Sampler^	24hr, 1 day in 6			AS/NZS 3580.9.3:2003
	Insoluble solids	Dust gauge	Monthly			AS/NZS 3850.10.1:2003

Monitoring location*	Air quality indicator	Instrument	Frequency	Air quality limit	Nuisance limit	Monitoring method
in the Air Emissions Management Plan developed pursuant to condition B3)						
Siting of monitoring equipment						AS/NZS 3580.1.1:2007

*See **Figure 2 – Air quality monitoring locations**
Data from the modified TEOM and Hi-Vol samplers to be used to calibrate the modified TEOM for monitoring TSP. Calibration needs to be undertaken over at least a 6 month period from June to December. Once the modified TEOM has been calibrated it can be used to measure TSP instead of the Hi-Vol sampler.
^ A modified TEOM can be used in place of a Hi-Vol Sampler to measure TSP.
+Trend monitoring can be undertaken using different instruments and methods from those specified in **Table A – Air quality monitoring requirements**.

Schedule C. Waste management

C1 Unless otherwise permitted by the conditions of this environmental authority or with prior approval from the administering authority and in accordance with a relevant standard operating procedure, waste must not be burnt.

C2 The holder of this environmental authority may burn vegetation cleared in the course of carrying out extraction activities provided the activity does not cause environmental harm at any sensitive place or commercial place.

C3 The holder of this environmental authority may dispose of inert waste (packing material) associated with blasting into open pits, buried in such a manner that it will not impede saturated aquifers.

Disposal of tyres

C4 Scrap tyres resulting from the mining activities can be disposed of into open pits provided tyres are placed as deeply in the spoil as reasonably possible and this practice does not cause an unacceptable fire risk or compromise mine safety.

C5 Scrap tyres resulting from the mining activities disposed within the operational land must not impede saturated aquifers or compromise the stability of the consolidated landform.

Tailings disposal

C6 Tailings must be managed in accordance with procedures contained within the Tailings Management Plan, which must include provisions for:

(a) containment of tailings

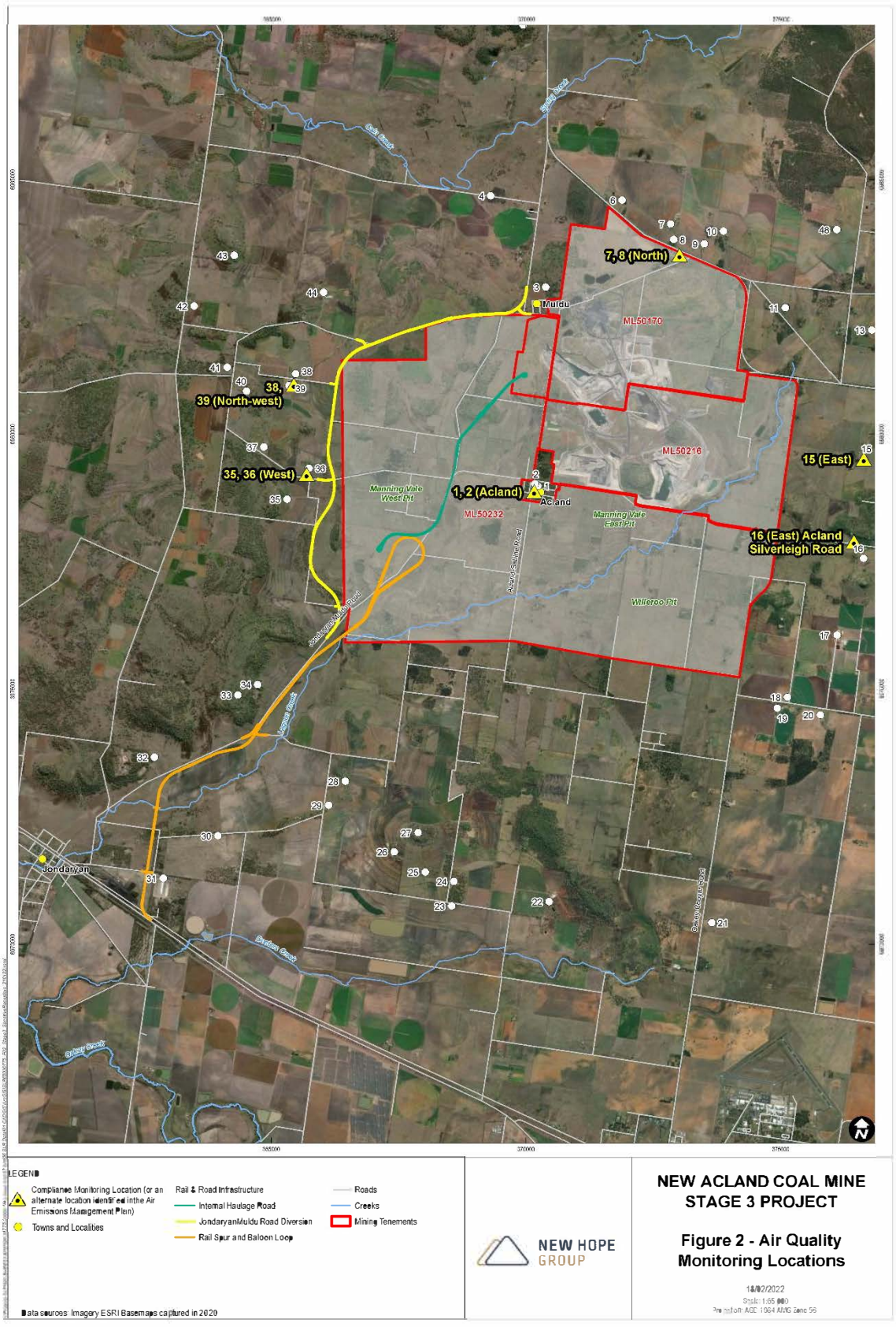
(b) the management of seepage and leachates both during operation and the foreseeable future

(c) the control of fugitive emissions to air

(d) maintain records of the relative locations of any other waste stored within the tailings

(e) rehabilitation strategy

(f) monitoring of rehabilitation, research and/or trials to verify the requirements and methods for decommissioning and final rehabilitation of tailings, including the prevention and management of acid mine drainage, erosion minimisation and establishment of vegetation cover.



NEW ACLAND COAL MINE STAGE 3 PROJECT

Figure 2 - Air Quality Monitoring Locations

14/02/2022

Scale: 1:65 000

Projection: ADE 1964 AMG Zone 56

Schedule D. Noise

Noise limits

D1 The holder of this environmental authority must ensure that noise generated by the mining activities does not cause the criteria in **Table D1a – Noise limits (includes construction activities)** to be exceeded at a noise sensitive place.

Note: the measurement of noise for a noise sensitive place is either:

a) at that place (if measured there); or

b) at the monitoring location to which the noise sensitive place is correlated (where there is no measure at the noise sensitive place).

Table D1a – Noise limits (includes construction activities)

Noise level dB(A) measured as	All days		
	7am – 6pm	6pm – 10pm	10pm – 7am
Noise measured at a 'Noise sensitive place'			
$L_{Aeq, adj, 15\ min}$ [1]	42	35	35
L_{Amax}	-	-	50
L_{Amax} rail spur [2]	-	-	56
$L_{Aeq(24hr)}$ rail spur [2]	-	-	50

1. All noise other than that which is distinguishable as train noise.
2. Only for noise distinguishable as train noise.

D2 If performance or compliance monitoring indicates the potential for exceedance of the relevant limits in **Table D1a – Noise limits (includes construction activities)** then the environmental authority holder must immediately implement noise abatement measures to avoid exceeding the relevant limits.

Airblast overpressure nuisance

D3 The holder of this environmental authority must ensure that blasting does not cause the limits for peak particle velocity and air blast overpressure in **Table D2 – Blasting noise limits** to be exceeded at a noise sensitive place.

Table D2 – Blasting noise limits

Blasting noise limits	Noise sensitive or commercial blasting noise limits	
	Monday to Friday 7am to 6pm **Saturday 9am to 1pm**	**Monday to Friday: before 7am and after 6pm** **Saturday: before 9 am and after 1pm** **Sunday and Public Holidays^**
Airblast overpressure	115 dB (Linear) Peak for 9 out of 10 consecutive blasts initiated and not greater than 120 dB (Linear) Peak at any time	No blasting
Ground vibration peak particle velocity	5mm/second peak particle velocity for 9 out of 10 consecutive blasts and not greater than 10 mm/second peak particle velocity at any time	No blasting

^Blasting not permitted on Sundays and public holidays.

Compliance monitoring and reporting

D4a A Noise Monitoring Program must be developed by a suitably qualified and experienced person in relation to noise and implemented for all stages of mining to monitor compliance with **Table D1a – Noise limits (includes construction noise)** at the frequency and locations in **Table D4 – Compliance noise monitoring locations and frequency**. The Noise Monitoring Program must include a figure which identifies noise monitoring locations and sensitive receptors.

The Noise Monitoring Program must be submitted to the administering authority for approval within three (3) months upon grant of MLA50232 and/or MLA700002.

The Noise Monitoring Program must be implemented within three (3) months of the administering authority approving the program.

D4b When requested by the administering authority, compliance noise monitoring and recording must be undertaken within a reasonable and practicable timeframe to investigate any complaint of environmental noise nuisance at any noise sensitive place. In response to any such request, the holder of this environmental authority must undertake continuous monitoring of not less than seven (7) days to capture weather-related variations and variety in different operational conditions on site in noise levels and provide the results to the administering authority within 14 days following completion of monitoring.

D4 Compliance noise monitoring and recording required by condition D4a, D4b and D4 must be conducted in accordance with the administering authority's Noise Measurement Manual and include the following:

(a) $L_{A01,\ adj,\ 15\ min}$ – day, evening & night; $L_{A10,\ adj,\ 15\ min}$ – day, evening & night; $L_{Aeq,\ adj,\ 15\ min}$ -day, evening & night; and $L_{A90,\ adj\ 15\ min}$ – day, evening & night

(b) background noise L_{A90}

(c) the level and frequency of occurrence of impulsive or tonal noise and any adjustment and penalties to statistical levels

(d) atmospheric conditions including temperature, relative humidity and wind speed and directions

(e) effects due to any extraneous factors such as traffic noise and natural sources (e.g. insects, birds and wind)

(f) location, date and time of monitoring

(g) if a complaint concerns low frequency noise and where permitted by the owner or occupier of the noise sensitive place, $L_{LINeq\ 10\ mins}$ (internal), $L_{Aeq\ 10\ mins}$ (internal) and one third octave band measurements in $L_{LINeq\ 10\ mins}$ (internal) for centre frequencies in the 10 – 200 Hz range.

(h) maximum (L_{Amax}) noise levels – night (for a minimum of 30 minutes)

(i) $^1/_3$ octave band spectrums.

Table D4 – Compliance noise monitoring locations and frequency

Monitoring locations	Frequency
1 (Acland)	Monthly
34 (rail spur), 35 and 38 (or alternative noise sensitive places identified in the Noise Monitoring Program developed pursuant to condition D4a, D4b and D4)	Monthly
4, 8 and 10 (or alternative noise sensitive places identified in the Noise Monitoring Program developed pursuant to condition D4a, D4b and D4)	Monthly
11, 15, 16 (if occupied) and 19 (or alternative noise sensitive places identified in the Noise Monitoring Program developed pursuant to condition D4a, D4b and D4)	Monthly
Seven (7) days unattended monitoring at the above noise sensitive places or alternate locations identified in the Noise Monitoring Program developed pursuant to condition D4a.	Monthly for first 12 months after approval of the Noise Monitoring Program

D5 The holder of this environmental authority must develop and implement a blast monitoring program to monitor compliance with **Table D2 – Blasting noise limits** for

(a) At least 90% of all blast undertaken on this site in each year at the nearest noise sensitive place to the centroid of the blast.

(b) All blasts conducted during any time period specified by the administering authority at the nearest noise sensitive place.

Result of the blast monitoring program must be included in the monthly compliance monitoring report required by the Coordinator-General's imposed condition 3.

D6 The Noise Monitoring Program required by conditions D4a, D4b and D4 must also include a system of real time performance monitoring against the criteria in **Table D1a – Noise limits (includes construction noise)** at:

(a) location in Acland to be identified in the Noise Monitoring Program

(b) location to the east of the New Acland mine to be identified in the Noise Monitoring Program

(c) location to the north of the New Acland mine to be identified in the Noise Monitoring Program; and

(d) location to the west of the New Acland mine to be identified in the Noise Monitoring Program.

NOTE: The performance monitoring required under this condition is to be used for performance management. However, the administering authority may consider data collected by the performance noise monitoring system to investigate compliance with **Table D1a – Noise limits (includes construction noise)**.

D7 An annual noise monitoring program report must be provided to the administering authority that details:

(a) the correlation measurements between the real-time monitoring system and the noise sensitive receptors; and

(b) how the real-time monitoring system adjusted the real-time measurement data in accordance with the correlation assessment at each monitoring location.

Noise and vibration management plan

D8 A Noise and Vibration Management Plan must be developed by a suitably qualified and experienced person and be implemented for all stages of mining within three (3) months upon the grant of MLA50232 and/or MLA700002.

Schedule E. Groundwater

Contaminant release

E1 The holder of this environmental authority must not release contaminants to groundwater.

Monitoring and reporting

E2 All determinations of groundwater quality and biological monitoring must be performed by an appropriately qualified person.

E3 Groundwater quality and levels must be monitored at the locations and frequencies defined in **Table E1 – Groundwater monitoring locations and frequency** for quality characteristics identified **in Table E2 – Groundwater quality triggers and limits**.

Table E1 – Groundwater monitoring locations and frequency

Monitoring Point	Aquifer Compliance Bore (C)	Location (GDA94 – Zone 56)		Parameter[1] and Monitoring Frequency
		Easting (m)	Northing (m)	
2289P	Coal measures (C)	371265	6983532	Groundwater levels: monthly
2291P	Coal measures (C)	374620	6980033	

Monitoring Point	Aquifer Compliance Bore (C)	Location (GDA94 – Zone 56)		Parameter[1] and Monitoring Frequency
		Easting (m)	Northing (m)	
18P	Coal measures (C)	371028	6982641	Groundwater quality: Six monthly to include: Al, As, Ca, Se, Cl, Cu, F, Fe, Total N, K, Mg, Mn, Na, SO_4, HCO_3, TDS, EC, pH
25P	Coal measures (C)	374146	6982057	
26P	Coal measures (C)	374266	6982977	
27P	Coal measures (C)	373360	6983554	
28P	Coal measures (C)	372328	6983977	
843	Basalt (C)	370698	6981283	
848	Coal measures (C)	370705	6981723	
81P	Coal measures (C)	375003	6979638	
82P	Coal measures (C)	373697	6978814	
83P	Coal measures (C)	371854	6979679	
84P	Basalt (C)	370355	6982187	
BMH1	Basalt (C)	369658	6982204	
CSMH1	Coal measures (C)	375404	6977336	
109P	Basalt	368263	6982378	
122PGC	Coal measures	370656	6977837	
114P	Coal measures	371806	6976037	
116P	Coal measures	374220	6975132	
119PGC	Coal measures	371609	6973337	
120WB	Coal measures	367523	6976115	
121WB	Coal measures	368472	6978441	
1A	Basalt	366548	6982090	
1B	Coal measures	366548	6982090	
2A	Basalt	365884	6979300	
2B	Coal measures	365884	6979300	
3A	Basalt	369416	6973707	
3B	Coal measures	369416	6973707	
4A	Basalt	365800	6977025	
4B	Coal measures	365800	6977025	
4C	Marburg Sandstone	365800	6977025	
5A	Oakey Creek alluvium	373845	6972482	
5B	Coal measures	373845	6972482	
5C	Marburg Sandstone	373845	6972482	
6	Coal measures	375435	6975738	
7A	Basalt	367572	6982694	
7B	Coal measures	367572	6982694	
8	Mine Pit Backfill	372514	6982689	

1 - Aluminium (Al), Arsenic (As), Calcium (Ca), Selenium (Se), Chloride (Cl), Copper (Cu), Fluorine (F), Iron (Fe), Total Nitrogen (Total N), Potassium (K), Magnesium (Mg), Manganese (Mn), Sodium (Na), Sulphate (SO4), Bicarbonate (HCO3), Total dissolves solids (TDS), Electrical conductivity (EC), Acidity/alkalinity (pH)

Table E2 – Groundwater quality triggers and limits

Parameter	Units	Contaminant Limit[1]	Monitoring frequency
Al	mg/l	5.0	Half yearly
As	mg/l	.05	Half yearly
Ca	mg/l	1000	Half yearly
Se	mg/l	0.02	Half yearly
Cl	mg/l	TBA	Half yearly
Cu	mg/l	1.0 [2]	Half yearly
F	mg/l	TBA	Half yearly
Fe	mg/l	TBA	Half yearly
NO_3	mg/l	400	Half yearly
NO_2	mg/l	30	Half yearly
K	mg/l	TBA	Half yearly
Mg	mg/l	TBA	Half yearly
Mn	mg/l	TBA	Half yearly
Na	mg/l	TBA	Half yearly
SO_4	mg/l	1000	Half yearly
HCO_3	mg/l	TBA	Half yearly
TDS	mg/l	5000 [2,3]	Half yearly
EC	mg/l	7460 [2,3,4]	Half yearly
pH	unit	TBA	Half yearly

1 – Based on Stockwater limits defined in ANZECC (2000).
2 – Defined for beef cattle based on landholder bore survey results.
3 – Existing bores 27P, 28P, 2289 and 118P background levels already exceed this limit prior to mine operation.
4 – Based on EC to TDS conversion factor of 0.67 as per ANZECC (2000).

E4 Groundwater levels when measured at the monitoring locations specified in **Table E1 – Groundwater monitoring locations and frequency** must not exceed the groundwater level trigger change thresholds specified in **Table E3 – Ground level monitoring** below.

Table E3 – Groundwater level monitoring[1]

Monitoring Point	Level trigger threshold
2289P	TBA
2291P	TBA
18P	TBA
25P	TBA
26P	TBA
27P	TBA
28P	TBA
843	TBA

Monitoring Point	Level trigger threshold
848	TBA
81P	TBA
82P	TBA
83P	TBA
84P	TBA
BMH1	TBA
CSMH1	TBA
109P	TBA
122PGC	TBA
114P	TBA
116P	TBA
119PGC	TBA
120WB	TBA
121WB	TBA
1A	TBA
1B	TBA
2A	TBA
2B	TBA
3A	TBA
3B	TBA
4A	TBA
4B	TBA
4C	TBA
5A	TBA
5B	TBA
5C	TBA
6	TBA
7A	TBA
7B	TBA
8	TBA

[1]To be provided – Water level trigger thresholds will be proposed following 12 months of monitoring of the new bores and following the first update of the groundwater model prior to the operation of the revised project.

Exceedance investigation

E5 If quality characteristics of groundwater from compliance bores identified **in Table E1 – Groundwater monitoring locations and frequency** exceed any of the trigger levels stated in **Table E2 – Groundwater quality triggers and limits** or exceed any of the groundwater level trigger threshold stated in **Table E3 – Groundwater level monitoring**, the holder of this environmental authority must compare the compliance

monitoring bore results to the reference bore results and complete an investigation in accordance with the ANZECC and ARMCANZ 2000.

E6 Results of monitoring of groundwater from compliance bores identified in **Table E1 – Groundwater monitoring locations and frequency**, must not exceed any of the limits defined in **Table E2 – Groundwater quality triggers and limits**.

Bore construction and maintenance and decommissioning

E7 The construction, maintenance and management of groundwater bores (including groundwater monitoring bores) must be undertaken in a manner that prevents or minimises impacts to the environment and ensures the integrity of the bores to obtain accurate monitoring.

Schedule F. Water

F1 Contaminants that will, or have the potential to cause environmental harm must not be released directly or indirectly to any waters as a result of the authorised mining activities, except as permitted under the conditions of this environmental authority.

F2 Unless otherwise permitted under the conditions of the environmental authority, the release of mine affected water to waters must only occur from the release points specified in **Table F1 – Mine affected water release points, sources and receiving waters** and depicted in Figure 2 of the *New Acland Coal Mine Stage 3 Project Information Clarification to the AEIS December 2014*[32].

Table F1 – Mine-affected water release points, sources and receiving waters

Release Point (RP) 1	Latitude (decimal degree, GDA94)	Longitude (decimal degree, GDA94)	Mine-affected water source and location 1	Monitoring Point	Receiving waters description
ED1	27° 15' 40.5603" S	151° 41' 48.32659" E	ED1	Overflow from ED1	Spring Creek
ED2	27° 16' 54.96167" S	151° 41' 36.83113" E	ED2	Overflow from ED2	Lagoon Creek
ED3	27° 18' 29.40913" S	151° 42' 50.52694" E	ED3	Overflow from ED3	Lagoon Creek
ED4	27° 17' 41.49436" S	151° 41' 33.60156" E	ED4	Overflow from ED4	Lagoon Creek
ED5	TBA	TBA	ED5	Overflow from ED5	Lagoon Creek
ED6	TBA	TBA	ED6	Overflow from ED6	Lagoon Creek
ED7	TBA	TBA	ED7	Overflow from ED7	Lagoon Creek

F3 The release of mine affected water to waters in accordance with condition F2 must not exceed the release limits stated in **Table F2 – Mine-affected water release limits** when measured at the monitoring points specified in **Table F1 – Mine-affected water release points, sources and receiving waters** for each quality characteristic.

[32] New Acland Coal Mine Stage 3 Project Information Clarification to the AEIS December 2014, available at https://www.statedevelopment.qld.gov.au/__data/assets/pdf_file/0023/34259/information-clarification-to-the-aeis.pdf

Table F2 – Mine-affected water release limits

Quality characteristic	Release limits	Monitoring frequency
Electrical conductivity (uS/cm)	Release limits specified in Table F3 for variable flow criteria	Real time telemetry for EC and pH. Daily grab samples if telemetry not available. If telemetry is unavailable, the first sample must be taken within 2 hours of commencement of release.
pH (pH Unit)	6.0 (minimum) 9.0 (maximum)	
Total suspended solids (mg/l)	100	Daily during release (the first sample must be taken within 2 hours of commencement of release).

F4 The release of mine affected water to waters from the release points must be monitored at the locations specified in **Table F1 – Mine-affected water release points, sources and receiving waters** for each quality characteristic and at frequency specified in **Table F2 – Mine-affected water release limits**.

Mine-affected water release events

F5 The holder must ensure a stream flow gauging station/s is installed, operated and maintained to determine and record steam flows in Lagoon and Spring Creek upstream of the discharge sites.

F6 Notwithstanding any other condition of this environmental authority, the release of mine affected water to waters in accordance with condition F2 must only take place during periods of natural flow in accordance with the receiving water flow criteria for discharge specified in **Table F2 – Mine-affected water release limits** for the release point(s) specified in **Table F1 – Mine-affected water release points, sources and receiving waters**.

F7 The release of mine affected water to waters in accordance with condition F6 must not exceed the Maximum Release Rate (for all combined release point flows) for each receiving water flow criterion for discharge specified in **Table F3 – Mine-affected water release during flow events** when measured at the monitoring points specified in **Table F1 – Mine-affected water release points, sources and receiving waters**.

F8 The daily quantity of mine affected water released from each release point must be measured and recorded.

F9 Release to waters must be undertaken so not as to cause erosion of the bed and banks of the receiving waters or cause material build-up of sediment in such waters.

Table F3 – Mine-affected water release during flow events

Receiving waters/ stream	Release Point (RP)	Gauging Station (GDA94)	Gauging Station (GDA94)	Receiving Water Flow Criteria for discharge (m3/s)	Maximum release rate (for all combined RP flows)	Electrical Conductivity Release Limits
Lagoon Creek	ED2	27° 16’ 54.96167” S	151° 41’ 36.83113” E	Low Flow<4ML/d for a period of 28 days after natural flow events that exceed 4 ML/d	<1.5ML/d	700
	ED3	27° 18’ 29.40913” S	151° 42’ 50.52694” E			
	ED4	27° 17’ 41.49436” S	151° 41’ 33.60156” E			
	ED5	TBA	TBA	Medium Flow (low)>4 ML/d	<1.5ML/d	1500
					<0.7ML/d	2,500
					<0.5ML/d	3,500
	ED6	TBA	TBA	Medium Flow (high)>11.5ML/d	<4.2ML/d	1500
					<2ML/d	2,500
					<1.3ML/d	3,500

Receiving waters/ stream	Release Point (RP)	Gauging Station (GDA94)	Gauging Station (GDA94)	Receiving Water Flow Criteria for discharge (m3/s)	Maximum release rate (for all combined RP flows)	Electrical Conductivity Release Limits
	ED7	TBA	TBA	High Flow >35ML/d	<12.5ML/d	1500
					<8ML/d	2,500
					<6ML/d	3,500
Spring Creek	ED1	27° 15' 40.5603" S	151° 41' 48.32659" E	Low Flow<4ML/d for a period of 28 days after natural flow events that exceed 4 ML/d	<1.5ML/d	700

Notification of release event

F10 The environmental authority holder must notify the administering authority as soon as practicable and no later than 24 hours after commencing to release mine affected water to the receiving environment. Notification must include the submission of written advice to the administering authority of the following information:

(a) release commencement date/time

(b) details regarding the compliance of the release with the conditions of Department Interest: Water of this environmental authority (that is, contaminant limits, natural flow, discharge volume)

(c) release point/s

(d) release rate

(e) release salinity

(f) receiving water/s including the natural flow rate.

Note: Notification to the administering authority must be made via WaTERS.

F11 The environmental authority holder must notify the administering authority as soon as practicable and nominally no later than 24 hours after cessation of a release event of the cessation of a release notified under condition F10 and within 28 days provide the following information in writing:

(a) release cessation date/time

(b) natural flow rate in receiving water

(c) volume of water released

(d) details regarding the compliance of the release with the conditions of Department Interest; Water of this environmental authority (i.e. contaminant limits, natural flow, discharge volume)

(e) all in-situ water quality monitoring results

(f) any other matters pertinent to the water release event.

Note: Successive or intermittent releases occurring within 24 hours of the cessation of any individual release can be considered part of a single release event and do not require individual notification for the purpose of compliance with conditions F10 and F11, provided the relevant details of the release are included within the notification provided in accordance with conditions F10 and F11.

F12 If the release limits defined in **Table F2 – Mine-affected water release limits** are exceeded, the holder of the environmental authority must notify the administering authority within 24 hours of receiving the results.

F13 The environmental authority holder must, within 28 days of a release that is not compliant with the conditions of this environmental authority, provide a report to the administering authority detailing:

(a) the reason for the release

(b) the location of the release

(c) the total volume of the release and which (if any) part of this volume was non-compliant

(d) the total duration of the release and which (if any) part of this period was non-compliant

(e) all water quality monitoring results (including all laboratory analyses)

(f) identification of any environmental harm as a result of the non-compliance

(g) all calculations

(h) any other matters pertinent to the water release event.

Receiving Environment Monitoring and Contaminant Trigger Levels

F14 The quality of the receiving waters must be monitored at the locations specified in **Table F5 – Receiving water upstream background sites and downstream monitoring points** for each quality characteristic and at the monitoring frequency stated in **Table F4 – Receiving waters contaminant trigger levels**.

Table F4 – Receiving waters contaminant trigger levels

Quality Characteristic	Trigger Level	Monitoring Frequency
pH	6.5 – 9.0	Daily during the release
Electrical Conductivity (µS/cm)	510	
Total Suspended solids (mg/L)	To Be Determined. Turbidity may be required to assess ecosystems impacts and can provide instantaneous results.	
Sulphate (SO_4^{2-}) (mg/L)	250 (Protection of drinking water Environmental Value)	

Table F5 – Receiving water upstream background sites and downstream monitoring points

Monitoring Points	Receiving Waters Location Description	Latitude (GDA94)	Longitude (GDA94)
Upstream Background Monitoring Points			
LCU1	Lagoon Creek at a point upstream of mine	27° 18’ 9.7728” S	151° 44’ 23.136” E
SCU1	Spring Creek at a point upstream of mine	27° 14’ 18.7728” S	151° 41’ 31.2864” E
Downstream Monitoring Points			
LCD1	Lagoon Creek downstream of mine	27° 18’ 35.64” S	151° 43’ 4.3536” E
LCD2	Lagoon Creek downstream of mine	27° 18’ 37.36” S	151° 43’ 1.8768” E
SCD1	Spring Creek at a point downstream of mine	27° 14’ 47.364” S	151° 40’ 36.2028” E
DS1	Located at the downstream boundary of MLA50232* (*or any subsequent identifier for the ML required for the New Acland Coal Mine Stage 3 project)	27° 19’ 26.68” S	151° 41’ 7.02 E

F15 If quality characteristics of the receiving water at the downstream monitoring points exceed any of the trigger levels specified in **Table F4 – Receiving waters contaminant trigger levels** during a release of mine affected water the environmental authority holder must compare the downstream results to the upstream results in the receiving waters and:

(a) where the downstream result in the same or a lower value than the upstream value for the quality characteristic then no additional monitoring and reporting action is required; or

(b) where the downstream results exceed the upstream results complete an investigation into the potential for environmental harm and provide a written report to the administering authority within 90 days of receiving the results and in the next annual return, outlining

(i) details of the investigation carried out

(ii) actions taken to prevent environmental harm.

Note: Where an exceedance of a trigger level has occurred and is being investigated, in accordance with (b) of this condition, no further reporting is required for subsequent trigger events for that quality characteristic.

F16 All determinations of water quality and biological monitoring must be performed by an appropriately qualified person.

Annual Water Monitoring Reporting

F17 The following information must be recorded in relation to all water monitoring required under the conditions of this environmental authority and submitted to the administering authority via WaTERS upon request in the specified format:

(a) the date on which the sample was taken

(b) the time at which the sample was taken

(c) the monitoring point at which the sample was taken

(d) the measured or estimated daily quantity of mine affected water released from all release points

(e) the release flow rate at the time of sampling for each release point

(f) the results of all monitoring and details of any exceedances of the conditions of this environmental authority

(g) water quality monitoring data must be provided to the administering authority in the specified electronic format

(h) water level monitoring data must be provided in the specified electronic format.

Water Management Plan

F18 A Water Management Plan must be developed by a suitably qualified and experienced person and implemented for all stages of mining. The Water Management Plan must be submitted to the administering authority for review and comment within three (3) months of the grant of MLA50232 and/or MLA700002.

Stormwater and Water sediment controls

F19 An Erosion and Sediment Control Plan must be developed by an appropriately qualified person and implemented for all stages of the mining activities on the site to minimise erosion and the release of sediment to receiving waters and contamination of stormwater.

F20 Stormwater, other than mine affected water, is permitted to be released to waters from:

(a) erosion and sediment control structures that are installed and operated in accordance with the Erosion and Sediment Control Plan required by condition F19.

(b) water management infrastructure that is installed and operated, in accordance with a Water Management Plan that complies with condition F18 for the purpose of ensuring water does not become mine affected water.

Schedule G. Sewage treatment

G1 All effluent released from the treatment plant must be monitored at the frequency and for the parameters specified in **Table G1 – Sewage effluent quality targets for dust suppression and irrigation**.

Table G1 – Sewage effluent quality targets for dust suppression and irrigation

Contaminant	Unit	Release limit	Limit type	Frequency
5-day Biochemical oxygen demand (uninhibited)	mg/L	20	Maximum	Quarterly
Faecal coliforms, based on the average of a minimum of five samples collected	Colonies/100ml	1000	Maximum	Quarterly
pH	pH units	6.0 – 9.0.	Range	Quarterly

G2 Treated sewage effluent used for dust suppression or irrigation must not exceed sewage release limits defined in **Table G1 – Sewage effluent quality targets for dust suppression and irrigation**.

G3 Sewage effluent used for dust suppression or irrigation must not cause spray drift or overspray to any sensitive place.

G4 Subject to condition G5, sewage effluent from sewage treatment facilities must be reused or evaporated and must not be directly released from the sewage treatment plant to any water way or drainage line.

G5 In periods of wet weather or following wet weather, when no irrigation of effluent is reasonably practicable and when effluent storage ponds are full, the release of effluent to waters is permitted in accordance with the release limits in **Table F2 – Mine-affected water release limits** and locations specified in **Table F1 – Mine-affected water release points, sources and receiving waters**.

G6 The holder of the environmental authority must ensure that irrigation of effluent is carried out in such a manner that prevents and or minimises environmental harm.

G7 The holder of this environmental authority is authorised to accept treated wastewater from the Wetalla Wastewater Reclamation Facility.

Schedule H. Land and rehabilitation

H1 Land disturbed by mining must be rehabilitated in accordance with **Table H1 – Rehabilitation Requirements**.

Table H1 – Rehabilitation requirements

Mine Domain	Rehabilitation Goal	Rehabilitation Objectives	Indicators	Completion Criteria
Solid Waste Rock Disposal	Safe	Site safe for humans and animals	Structurally safe and shallow slopes (geotechnically stable). No hazardous materials (geochemically benign).	Monitoring / observation demonstrates safe site
	Non-polluting	No environmental harm attributed to adverse chemical conditions within the waste rock dumps	Minimise erosion (to at least <10t/ha/yr) through selective placement of mine waste, adequate vegetation cover. Runoff and seepage does not cause environmental harm.	Suitable for low intensity grazing. Runoff and discharge water (including seepage) meets specified limits.
	Stable	Minimise erosion	Wastes selectively placed above and below original ground level to agreed slopes. Adequate ground cover established to control erosion. Runoff control measures (contour banks, etc) effective in controlling erosion.	Suitable for low intensity grazing

Mine Domain	Rehabilitation Goal	Rehabilitation Objectives	Indicators	Completion Criteria
	Self-sustaining	To return to agreed grazing land capability	Slope and other landform design criteria achieved. Establish adequate vegetation cover.	Refer Table H2 and Table H3
Tailings Dams	Safe	Site safe for humans and animals	Structurally safe (geotechnically stable). Adequate capping. Accessibility to voids is permanently removed.	Monitoring / observation demonstrates safe site
	Non-polluting	Acid mine drainage will not cause environmental harm	Adequately capped. Minimise erosion through adequate vegetation cover to less than 10t/ha/yr. Runoff and seepage controlled by water management.	Monitoring meeting release limits. Suitable for low intensity grazing
	Stable	Minimise erosion	Stored in both pits below natural surface level and in dams above natural surface. Establish adequate vegetation cover.	Monitoring demonstrates revegetation success. No structural erosion present. Suitable for low intensity grazing
	Self-sustaining	To return to agreed grazing land capability	Monitoring demonstrates successful revegetation.	Refer Table H2 and Table H3
Mine Infrastructure Areas	Safe	Site safe for humans and animals	Hazardous materials removed.	Monitoring / observation demonstrates safe site
	Non-polluting	Undertake contaminated land assessment.	Remediate contamination so that runoff and seepage are of good quality.	Monitoring meeting release limits.
	Stable	Minimise erosion	Remove infrastructure or allow continued use of useful infrastructure. Establish adequate vegetation cover.	Slope will be a maximum of 17° (30%)
	Self-sustaining	To return to agreed grazing land capability	Return to previous use (grazing). Establish adequate groundcover.	Refer Table H2 and Table H3
Linear Infrastructure areas	Safe	Site safe for humans and animals	Structurally safe (geotechnically stable).	Monitoring / observation demonstrates safe site
	Non-polluting	No environmental harm attributed to adverse chemical conditions within the rehabilitation areas.	Runoff and seepage controlled by water management (e.g. dams).	Monitoring meeting release limits
	Stable	Minimise erosion	Remove infrastructure, rip reshape and revegetate or allow continued use of useful infrastructure.	Suitable for low intensity grazing
	Self-sustaining	To return to agreed grazing land capability	Remove infrastructure or allow continued use of useful infrastructure. Establish adequate vegetation cover.	Refer Table H2 and Table H3

Table H2 – Rehabilitation acceptance criteria – grazing lands

Land Suitability Class	Acceptance Criteria – Grazing Land						
	Non-polluting	Stability and Sustainability Land Use					
	Active Rill / Gully Erosion	Vegetation Cover	Native and Exotic Grass Species Diversity (spp./ha)	Slopes	Geo-technical Stability	Active Rill / Gully Erosion	Declared Weeds
2 to 5	Absence (<10t/ha/yr)	> 50%	≥ 4	Max-imum 17°	stable	absence	absence

Table H3 – Rehabilitation acceptance criteria – treed areas

Land Suitability Class	Acceptance Criteria – Grazing Land Treed Areas						
	Non-polluting	Stability and Sustainable Land Use					
	Active Rill / Gully Erosion	Vegetation Cover (including tree / shrub canopy)	Native Tree / Shrub & Native / Exotic Grass Species Diversity (spp./ha)	Slopes	Geo-technical Stability	Active Rill / Gully Erosion	Declared Weeds
2 to 5	Absence (<10t/ha/yr)	> 50%	Eucalyptus spp. ≥ 2 Acacia spp. ≥ 2 Other tree / shrub spp. ≥ 2 Grass ≥ 3	Max-imum 17°	stable	absence	absence

H2 Rehabilitation must commence progressively as land becomes available for rehabilitation..

Regulated Dams and Levees

H3 The consequence category of any structure must be assessed by a suitably qualified and experienced person in accordance with the Manual for Assessing Categories and Hydraulic Performance of Structures (EM635) at the following times:

(a) prior to the design and construction of the structure, if it is not an existing structure; or

(b) if it is an existing structure, prior to the adoption of this schedule; or

(c) prior to any change in its purpose or the nature of its stored contents.

H4 A consequence assessment report and certification must be prepared for each structure assessed and the report may include a consequence for more than one structure.

H5 Certification must be provided by the suitably qualified and experienced person who undertook the assessment, in the form set out in the *Manual for Assessing Consequences Categories and Hydraulic Performance of Structures (EM635)*.

Design and construction of a regulated structure

H6 Condition H7 to H11 inclusive do not apply to existing structures.

H7 All regulated structures must be designed by and constructed under the supervision of a suitably qualified and experienced person in accordance with the requirements of the Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635).

H8 Construction of a regulated structure is prohibited unless the holder has submitted a consequence category assessment report and certification to the administering authority has been certified by a suitably qualified and experienced person for the design and the design plan and the associated operating procedures in compliance with the relevant condition of this authority.

H9 Certification must be provided by the suitably qualified and experienced person who oversees the preparation of the design plan set out in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*, and must be recorded in the Register of Regulated Structures.

H10 Regulated structures must:

(a) be designed and constructed in accordance with and conform to the requirements of the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*;

(b) be designed and constructed with due consideration given to ensuring that the design integrity would not be compromised on account of:

(i) floodwaters from entering the regulated structure from any watercourse or drainage line; and

(ii) wall failure due to erosion by floodwaters arising from any watercourse or drainage line.

(c) have the floor and sides of the structure designed and constructed to prevent or minimise the passage of the wetting front and any entrained contaminants through either the floor or sides of the dam during the operational life of the dam and for any period of decommissioning and rehabilitation of the dam.

H11 Certification by the suitably qualified and experienced person who supervises the construction must be submitted to the administering authority on the completion of construction of the regulated structure and state that:

(a) the 'as constructed' drawings and specifications meet the original intent of the design plan for that regulated structure;

(b) construction of the regulated structure is in accordance with the design plan.

Operation of a regulated structure

H12 Operation of a regulated structure, except for an existing structure, is prohibited unless the holder has submitted to the administering authority:

(a) one paper copy and one electronic copy of the design plan and certification of the 'design plan' in accordance with condition H8;

(b) a set of 'as constructed' drawings and specifications;

(c) certification of those 'as constructed drawings and specifications' in accordance with condition H9;

(d) where the regulated structure is to be managed as part of an integrated containment system for the purpose of sharing the Design Storage Allowance (DSA) volume across the system, a copy of the certified system design plan;

(e) the requirements of this authority relating to the construction of the regulated structure have been met;

(f) the holder has entered the details required under this authority into a Register of Regulated Structures; and

(g) there is a current operational plan for the regulated structures.

H13 For existing structures that are regulated structures:

(a) where the existing structure that is a regulated structure is to be managed as part of an integrated containment system for the purposes of sharing DSA volume across the system, the holder must submit to the administering authority within 12 months of the commencement of this condition a copy of the certified system design plan including that structure; and

(b) there must be a current operational plan for the existing structures.

H14 Each regulated structure must be maintained and operated for the duration of its operational life until decommissioned and rehabilitated in a manner that is consistent with the current operational plan and if applicable the current design plan and associated certified 'as constructed' drawings.

Mandatory reporting level

H15 Conditions H16 to H19 inclusive apply to regulated dams which have not been certified as low consequence category for 'failure to contain – overtopping'.

H16 The Mandatory Reporting Level (the MRL) must be marked on a regulated dam in such a way that during routine inspections of the dam it is clearly observable.

H17 The holder must, as soon as practical and within 48 hours of becoming aware, notify the administering authority when the level of the contents of a regulated dam reaches the MRL.

H18 The holder must, immediately on becoming aware that the MRL has been reached, act to prevent the occurrence on any unauthorised discharges from the regulated dam.

H19 The holder must record any changes to the MRL in the Register of Regulated Structures.

Design storage allowance

H20 The holder must assess the performance of each regulated dam or linked containment system over the preceding November to May period based on actual observations of the available storage in each regulated dam or linked containment system taken prior to 1 July of each year.

H21 By 1 November of each year, storage capacity must be available in each regulated dam (or network of linked containment systems with a shared DSA volume) to meet the DSA volume of the dam (or network of linked containment systems).

H22 The holder must, as soon as possible and within 48 hours of becoming aware that the regulated dam (or network of linked containment system) will not have the available storage to meet the DSA volume on 1 November of any year, notify the administering authority.

H23 The holder must, immediately on becoming aware that a regulated dam (or network of linked containment systems) will not have the available storage to meet the DSA volume on 1 November of any year, act to prevent the occurrence of any unauthorised discharge from the regulated dam or linked containment systems.

Annual inspection report

H24 Each regulated structure must be inspected each calendar year by a suitably qualified and experienced person.

H25 At each inspection the condition and adequacy of all components of the regulated structure must be assessed and a suitably qualified and experienced person must prepare an annual inspection report containing details of the assessment and include recommended actions to ensure the integrity of the regulated structure.

H26 The suitably qualified and experienced person who prepared the annual inspection report must certify the report in accordance with the Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635).

H27 The holder must:

(a) Within 20 business days of receipt of the annual inspection report provide to the administering authority:

(i) the recommendation section of the annual inspection report; and

(ii) if applicable, any actions being taken in response to those recommendations; and

(b) If, following receipt of the recommendations and (if applicable) actions, the administering authority requests a full copy of the annual inspection report from the holder, provide this information to the administering authority within 10 business days of receipt of the request.

Transfer arrangements

H28 The holder must provide a copy of any reports, documentation and certifications prepared under this authority, including but not limited to and Register of Regulated Structures, consequence assessment, design plan and other supporting documentation, to a new holder on transfer of this authority.

Decommissioning and rehabilitation

H29 Dams must not be abandoned but be either:

(a) decommissioned and rehabilitated to achieve compliance with condition H30; or

(b) be left in-situ for a beneficial use(s) provided that:

(i) it no longer contains contaminants that will migrate into the environment; and

(ii) it contains water of a quality that is demonstrated to be suitable for the intended beneficial use(s); and

the administrating authority, the holder of the environmental authority and the landholder agree in writing that the dam will be used by the landholder following cessation of the resource activity.

H30 After decommissioning, all significantly disturbed land caused by carrying out of the resource activity must be rehabilitated to meet the final acceptance criteria:

(a) the landform is safe for humans and fauna;

(b) the landform is stable with no subsidence of erosion gullies for at least three (3) years;

(c) any contaminated land (e.g. contaminated soils) is remediated and rehabilitated;

(d) not allowing for acid mine drainage; or

(e) there is no ongoing contamination to waters (including groundwater);

(f) all significantly disturbed land is reinstated as defined in **Table H1 – Rehabilitation requirements**;

(g) for land that is not being cultivated by the landholder:

(i) groundcover, that is not a declared pest species is established and self-sustaining;

(ii) vegetation of similar species richness and species diversity to pre-selected analogue sites is established and self-sustaining; and

(iii) the maintenance requirements for rehabilitated land are no greater than that required for the land prior to its disturbance caused by carrying out of the resource activity.

(h) For land that is cultivated by the landowner, cover crop is revegetated, unless the landholder will be preparing the site for cropping within three (3) months of resource activities being completed.

Register of Regulated Structures

H31 A Register of Regulated Structures must be established and maintained by the holder for each regulated structure.

H32 The holder must provisionally enter the required information in the Register of Regulated Structures when a design plan for a regulated dam is submitted to the administering authority.

H33 The holder must make a final entry of the required information in the Register of Regulated Structures once compliance with condition H12 and H13 has been achieved.

H34 The holder must ensure that the information contained in the Register of Regulated Structures is current and complete on any given day.

H35 All entries in the Register of Regulated Structures must be approved by the chief executive officer for the holder of this authority, or the delegate, as being accurate and correct.

H36 The holder must, at the same time as providing the annual return, supply to the administering authority a copy of the records contained in the Register of Regulated Structures, in the electronic format required by the administering authority.

Contaminated Land

H37 Before applying for surrender of a mining lease, the holder must (if applicable) provide to the administering authority a site investigation report under the Act, in relation to any part of the mining lease which has been used for notifiable activities or which the holder is aware is likely to be contaminated land, and also carry out any further work that is required as a result of that report to ensure that the land is suitable for its final land use.

H38 Before applying for progressive rehabilitation certification for an area, the holder must (if applicable) provide to the administering authority a site investigation report under the Act, in relation to any part of the area the subject of the application which has been used for notifiable activities or which the holder is aware is likely to be contaminated land, and also carry out any further work that is required as a result of that report to ensure that the land is suitable for its final land use under condition H1.

H39 Minimise the potential for contamination of land by hazardous contaminants.

Biodiversity offsets

H40 Significant residual impacts to prescribed matters of state environmental significance must not exceed the maximum authorised residual impact area listed for that matter in **Table H4 – Maximum authorised impacts on Matters of State Environmental Significance (MSES)**.

Note: Deemed conditions in Sections 18, 22, 24 and 25 of the *Environmental Offsets Act 2014* are taken to be conditions of this authority.

H41 The holder of the environmental authority must provide an environmental offset for the following maximum significant residual impacts on matters of state environmental significance in accordance with the requirements of the *Environmental Offsets Act 2014* (including deemed conditions), the Environmental Offsets Regulation 2014 and the Queensland Environmental Offsets Policy 2014.

Table H4 – Maximum authorised impacts on Matters of State Environmental Significance (MSES)

Applicable MSES	NC Act Status	Maximum area of residual impact (ha)	Environmental offset required
Threatened REs listed under the *Vegetation Management Act 1999*			
11.3.1#	Endangered	2.58	Yes
11.9.5#	Endangered	24.53	Yes
11.3.2	Of concern	4.63	Yes
11.3.17	Of concern	5.11	Yes
11.8.11#	Of concern	34.65	Yes
11.9.10	Of concern	14.36	Yes
11.9.7	Of concern	3.24	Yes
11.9.13	Of concern	3.62	Yes
Watercourse vegetation (11.8.11)	Of concern	6.38	Yes
Threatened Fauna Species listed under the *Nature Conservation Act 1992*			
Koala (*Phascolarctos cinereus*)	Vulnerable	30.96 ha of remnant vegetation and an additional 18.40 ha of NJKHTs*^	Yes

Applicable MSES	NC Act Status	Maximum area of residual impact (ha)	Environmental offset required
Threatened Flora Species listed under the *Nature Conservation Act 1992*			
Belson's Panic Grass (*Homopholis belsonii*)#	Endangered	70.8	Yes
Austral Cornflower (*Rhaponticum austral*)#	Vulnerable	0.7	Yes

These prescribed environmental values duplicate MNES values and, in the event of an *Environment Protection and Biodiversity Conservation Act 1999* decision on the project, offsets for these matters may be conditioned for by the Commonwealth. Further, any offsets conditioned by the Commonwealth are likely to address offsetting for these matters as required by this environmental authority.
* NJKHTs = Non-Juvenile Koala Habitat Trees.
^ Based on the average tree density of 250 trees per hectare for koala habitat in SEQ used in the Queensland Environmental Offsets Policy (v1.8).

H42 Residual impacts are not authorised on any Matters of State Environmental Significance not identified in **Table H4 – Maximum authorised impacts on Matters of State Environmental Significance (MSES**).

Glossary for Appendix 2

Words and phrases used throughout these recommended conditions are defined below. Where a definition for a term is not provided, but is provided in the EP Act or subordinate legislation, the definition in the EP Act or subordinate legislation must be used.

acid rock drainage — any contaminated discharge emanating from a mining activity formed through a series of chemical and biological reactions, when geological strata is disturbed and exposed to oxygen and moisture.

affected person — someone whose drinking water can potentially be impacted as a result of discharges from a dam or their life can be put at risk due to dwellings or workplaces being in the path of a dam break flood.

airblast overpressure — energy transmitted from the blast site within the atmosphere in the form of pressure waves. The maximum excess pressure in this wave, above ambient pressure is the peak airblast overpressure measured in decibels linear (dBL).

appropriately qualified person — a person who has professional qualifications, training, skills or experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relating to the subject matter using the relevant protocols, standards, methods or literature.

annual inspection report — an assessment prepared by a suitably qualified and experienced person containing details of the assessment against the most recent consequence assessment report and design plan (or system design plan):

- against recommendations contained in previous annual inspections reports;
- against recognised dam safety deficiency indicators;
- for changes in circumstances potentially leading to a change in consequence category;
- for conformance with the conditions of this authority;
- for conformance with the 'as constructed' drawings;
- for the adequacy of the available storage in each regulated dam, based on an actual observation or

	observations taken after 31 May each year but prior to 1 November of that year, of accumulated sediment, state of the containment barrier and the level of liquids in the dam (or network of linked containment systems); • for evidence of conformance with the current operational plan.
Annual Exceedance Probability or AEP	the probability that at least one event in excess of a particular magnitude will occur in any given year.
assessed or assessment by a suitably qualified and experienced person in relation to a consequence assessment of a dam	a statutory declaration has been made by that person and, when taken together with any attached or appended documents referenced in that declaration, all of the following aspects are addressed and are sufficient to allow an independent audit of the assessment: • exactly what has been assessed and the precise nature of that determination; • the relevant legislative, regulatory and technical criteria on which the assessment has been based; • the relevant data and facts on which the assessment has been based, the source of that material, and the efforts made to obtain all relevant data and facts; and • the reasoning on which the assessment has been based using the relevant data and facts, and the relevant criteria.
associated works in relation to a dam	operations of any kind and all things constructed, erected or installed for that dam; and any land used for those operations.
authority	an environmental authority or a development approval.
background, with reference to the water schedule	the average of samples taken prior to the commencement of mining from the same waterway that the current sample has been taken.
blasting	the use of explosive materials to fracture: • rock, coal and other minerals for later recovery; or • structural components or other items to facilitate removal from a site or for reuse.
Certification	assessment and approval must be undertaken by a suitably qualified and experienced person in relation to any assessment or documentation required by the Manual (*Manual for Assessing Categories and Hydraulic Performance of Structures* (EM635)), including design plans, 'as constructed' drawings and specifications, construction, operation or an annual report regarding regulated structures, undertaken in accordance with the Board of Professional Engineers of Queensland Policy Certification by RPEQs (ID: 1.4 (2A)).
Certifying, certify or certified	a corresponding meaning as certification
chemical	• an agricultural chemical product or veterinary chemical product within the meaning of the *Agricultural and Veterinary Chemicals Code Act 1994* (Commonwealth); or • a dangerous good under the Australian Code for the Transport of Dangerous Goods by Road and Rail approved by the Australian Transport Council; or • a lead hazardous substance within the meaning of the *Workplace Health and Safety Regulation 1997*;

	• a drug or poison in the Standard for the Uniform Scheduling of Drugs and Poisons prepared by the Australian Health Ministers Advisory Council and published by the Commonwealth; or • any substance used as, or intended for use as: – a pesticide, insecticide, fungicide, herbicide, rodenticide, nematocide, miticide, fumigant or related product; or – a surface active agent, including, for example, soap or related detergent; or – a paint solvent, pigment, dye, printing ink, industrial polish, adhesive, sealant, food additive, bleach, sanitiser, disinfectant, or biocide; or – a fertiliser for agricultural, horticultural or garden use; or – a substance used for, or intended for use for mineral processing or treatment of metal, pulp and paper, textile, timber, water or wastewater; or – manufacture of plastic or synthetic rubber.
commercial place	a workplace used as an office or for business or commercial purposes, which is not part of the mining activity and does not include employees accommodation or public roads.
Consequence in relation to a structure as defined	the potential for environmental harm resulting from the collapse or failure of the structure to perform its primary purpose of containing, diverting or controlling flowable substances.
Consequence category	a category, either low, significant or high, into which a dam is assessed as a result of the application of tables and other criteria in the Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635).
construction or constructed in relation to a dam	includes building a new dam and modifying or lifting an existing dam, but does not include investigations and testing necessary for the purpose of preparing a design plan.
dam	a land-based structure or a void that contains, diverts or controls flowable substances, and includes any substances that are thereby contained, diverted or controlled by that land-based structure or void and associated works.
dam crest volume	the volume of material (liquids and/or solids) that could be within the walls of a dam at any time when the upper level of that material is at the crest level of that dam. That is, the instantaneous maximum volume within the walls, without regard to flows entering or leaving (for example, via spillway).
design plan	a document setting out how all identified consequence scenarios are addressed in the planned design and operation of a regulated structure.
design storage allowance or DSA	an available volume, estimated in accordance with the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)* published by the administering authority, must be provided in a dam as at 1 November each year in order to prevent a discharge from that dam to an **annual exceedance probability** (AEP) specified in that Manual.
designer for the purposes of a regulated dam	the certifier of the design plan for the regulated dam.
development approval	a development approval under the *Integrated Planning Act 1997* or the *Sustainable Planning Act 2009* in relation to a matter that involves an environmentally relevant activity under the *Environmental Protection Act 1994*.

disturbance of land	includes: • compacting, removing, covering, exposing or stockpiling of earth; • removal or destruction of vegetation or topsoil or both to an extent where the land has been made susceptible to erosion; • carrying out mining within a watercourse, waterway, wetland or lake; • the submersion of areas by tailings or hazardous contaminant storage and dam/structure walls; • temporary infrastructure, including any infrastructure (roads, tracks, bridges, culverts, dam/structures, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc.) which is to be removed after the mining activity has ceased; or • releasing of contaminants into the soil, or underlying geological strata. However, the following areas are not included when calculating areas of disturbance: • areas off lease (e.g. roads or tracks which provide access to the mining lease); • areas previously disturbed which have achieved the rehabilitation outcomes; • by agreement with the administering authority, areas previously disturbed which have not achieved the rehabilitation objective(s) due to circumstances beyond the control of the mine operator (such as climatic conditions); • areas under permanent infrastructure. Permanent infrastructure includes any infrastructure (roads, tracks, bridges, culverts, dam/structures, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc) which is to be left by agreement with the landowner; • disturbance that pre-existed the grant of the tenure.
EC	electrical conductivity.
effluent	treated waste water released from sewage treatment plants.
emergency action plan	documentation forming part of the operational plan held by the holder or a nominated responsible officer, that identifies emergency conditions that sets out procedures and actions that will be followed and taken by the dam owner and operating personnel in the event of an emergency. The actions are to minimise the risk and consequences of failure, and ensure timely warning to downstream communities and the implementation of protection measures. The plan must require dam owners to annually update contact.
existing structure	a structure that was in existence prior to the adoption of this schedule of conditions under the authority.
Extreme Storm Storage	a storm storage allowance determined in accordance with the criteria in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)* published by the administering authority
flowable substance	matter or a mixture of materials which can flow under any conditions potentially affecting that substance. Constituents of a flowable substance can include water, other liquids fluids or solids, or a mixture that includes water and any other liquids fluids or solids either in solution or suspension.

hazard category	a category, either low significant or high, into which a dam is assessed as a result of the application of tables and other criteria in Manual for Assessing Hazard Categories and Hydraulic Performance of Dams.
holder	• where this document is an environmental authority, any person who is the holder of, or is acting under, that environmental authority; or • where this document is a development approval, any person who is the registered operator for that development approval.
hydraulic performance	the capacity of a regulated dam to contain or safely pass flowable substances based on the design criteria specified for the relevant consequence category in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*.
infrastructure	water storage dams, levees, roads and tracks, buildings and other structures built for the purpose of the mining activity.
land in the land schedule of this document	land excluding waters and the atmosphere, that is, the term has a different meaning from the term as defined in the *Environmental Protection Act 1994*. For the purposes of the *Acts Interpretation Act 1954*, it is expressly noted that the term land in this environmental authority relates to physical land and not to interests in land.
land use	the selected post mining use of the land, which is planned to occur after the cessation of mining operations.
$L_{A\ max}$	means the maximum A-weighted sound pressure level measured over a time period of not less than 15 minutes, using Fast response
$L_{Aeq,\ adj\ 15\ min\ intervals}$	A-weighted equivalent continuous sound level over 15 minute intervals
$L_{Ar,\ 1\ hour}$	means the specific noise level measured as the A-weighted equivalent continuous noise levels (LAeq) plus any adjustment for the character of the noise (tonal and/or impulsive) determined over a reference time period of one hour
$L_{A10,adj,\ 15\ min}$	A-weighted, sound level just exceeded for 10% of the 15 minute period
leachate	a liquid that has passed through or emerged from, or is likely to have passed through or emerged from, a material stored, processed or disposed of at the operational land which contains soluble, suspended or miscible contaminants likely to have been derived from the said material.
levee	an embankment that only provides for the containment and diversion of stormwater or flood flows from a contributing catchment, or containment and diversion of flowable materials resulting from releases from other works, during the progress of those stormwater or flood flows or those releases; and does not store any significant volume of **water** or **flowable substances** at any other times.
licensed place	the mining activities carried out at the mining tenements detailed in this environmental authority.
low consequence dam	any dam that is not a high or significant consequence category as assessed using the Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)
m	metres

mandatory reporting level or MRL	a warning and reporting level determined in accordance with the criteria in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)* published by the administering authority.
manual	the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)* published by the administering authority.
measures	includes any measures to prevent or minimise environmental impacts of the mining activity such as bunds, silt fences, diversion drains, capping, and containment systems.
mine-affected water	the following types of water: i. pit water, tailings dam water, processing plant water; ii. water contaminated by a mining activity which would have been an environmentally relevant activity under Schedule 2 of the Environmental Protection Regulation 2008 if it had not formed part of the mining activity; iii. rainfall runoff which has been in contact with any areas disturbed by mining activities which have not yet been rehabilitated, excluding rainfall runoff discharging through release points associated with erosion and sediment control structures that have been installed in accordance with the standards and requirements of an Erosion and Sediment Control Plan to manage such runoff, provided that this water has not been mixed with pit water, tailings dam water, processing plant water or workshop water; iv. groundwater which has been in contact with any areas disturbed by mining activities which have not yet been rehabilitated; v. groundwater from the mines dewatering activities; vi. a mix of mine affected water (under any of paragraphs i-v, above) and other water. does not include surface water runoff which, to the extent that it has been in contact with areas disturbed by mining activities that have not yet been completely rehabilitated, has only been in contact with: • land that has been rehabilitated to a stable landform and either capped or revegetated in accordance with the acceptance criteria set out in the environmental authority but only still awaiting maintenance and monitoring of the rehabilitation over a specified period of time to demonstrate rehabilitation success; or • land that has partially been rehabilitated and monitoring demonstrates the relevant part of the landform with which the water has been in contact does not cause environmental harm to waters or groundwater, for example: – areas that are been capped and have monitoring data demonstrating hazardous material adequately contained with the site; – evidence provided through monitoring that the relevant surface water would have met the water quality parameters for mine affected water release limits in this environmental authority, if those parameters had been applicable to the surface water runoff; or – both.

minor infrastructure	means low impact infrastructure ancillary to mining and includes culverts, monitoring bores, disturbance for rehabilitation activities; low impact telecommunication infrastructure, electricity infrastructure up to 11 kilovolts, fences, environmental monitoring infrastructure, pipelines, underground services, access tracks, and roads for light vehicles, constructed and operated for the purposes of the mining activities represented in Figure 1 – Project overview
modification or **modifying**	see definition of construction
NATA	National Association of Testing Authorities, Australia.
natural flow	the flow of water through waters caused by nature.
noise sensitive place	means: • a legal dwelling, caravan park, residential marina or other residential premises; or • a motel, hotel or hostel; or • a kindergarten, school, university or other educational institution; or • a medical centre or hospital; or • a protected area; or • a public park or gardens; and • includes the curtilage of any such place. but does not include (a) places that are within the boundaries of the mining lease; or (b) places that are owned or leased by the holder of the environmental authority or its related companies; or (c) places for which an agreement has been entered into between the holder of the environmental authority and the owner of the place for the provision of alternative measures to mitigate the impact of mining activities for the Stage 3 New Acland Mine project at the place, where those measures are reasonably expected to result in noise levels experienced at the place that are consistent with the relevant limits in **Table D1a – Noise limits (includes construction noise)**.
non polluting	having no adverse impacts upon the receiving environment.
operational plan	includes: • normal operating procedures and rules (including clear documentation and definition of process inputs in the DSA allowance); • contingency and emergency action plans including operating procedures designed to avoid and/or minimise environmental impacts including threats to human life resulting from any overtopping or loss of structural integrity of the regulated structure.
peak particle velocity (ppv)	a measure of ground vibration magnitude which is the maximum rate of change of ground displacement with time, usually measured in millimetres/second (mm/s).

receiving environment in relation to an activity that causes or may cause environmental harm	the part of the environment to which the harm is, or may be, caused. The receiving environment includes (but is not limited to): • a watercourse; • groundwater; and • an area of land.
receiving waters	the waters into which this environmental authority authorises releases of mine affected water.
Register of Regulated Structures	includes: • Date of entry in the register; • Name of the structure, its purpose and intended/actual contents; • The consequence category of the structure as assessed using the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*; • Dates, names, and reference for the design plan plus dates, names, and reference numbers of all document(s) lodged as part of a design plan for the structure; • Name and qualifications of the suitably qualified and experienced person who certified the design plan and as constructed drawings; • For regulated dams only – – The dimensions (metres) and surface area (hectares) of the dam measured at the footprint of the dam; – Coordinates (latitude and longitude in GDA94) within five metres at any point from the outside of the dam including its storage area – Dam crest volume (megalitres); – Spillway crest level (metres AHD). – Maximum operating level (metres AHD); – Storage rating table of stored volume versus level (metres AHD); – Design storage allowance (megalitres) and associated level of the dam (metres AHD); – Mandatory reporting level (metres AHD); • The design plan title and reference relevant to the dam; • The date construction was certified as compliant with the design plan; • The name and details of the suitably qualified and experienced person who certified that the constructed dam was compliant with the design plan; • Details of the composition and construction of any liner; • The system for the detection of any leakage through the floor and sides of the dam; • Dates when the regulated dam underwent an annual inspection for structural and operational adequacy, and to ascertain the available storage volume for 1 November of any year; • Dates when recommendations and actions arising from the annual inspection were provided to the administering authority; • Dam water quality as obtained from any monitoring required under this authority as at 1 November of each year.
rehabilitation	the process of reshaping and revegetating land to restore it to a stable landform

release event	a surface water discharge from mine affected water storages or contaminated areas on the licensed place.
RL	reduced level, relative to mean sea level as distinct from depths to water.
representative	a sample set which covers the variance in monitoring or other data either due to natural changes or operational phases of the mining activities.
regulated dam	any dam in the significant or high consequence category as assessed using the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)* published by the administering authority.
regulated structure	includes land-based containment structures, levees, bunds and voids, but not a tank or container designed and constructed to an Australian Standard that deals with strength and structural integrity.
residual drilling material	waste drilling materials including muds and cuttings or cement returns from well holes and which have been left behind after the drilling fluids are pumped out.
saline drainage	the movement of waters, contaminated with salts, as a result of the mining activity.
sensitive place	• a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or • a motel, hotel or hostel; or • an educational institution; or • a medical centre or hospital; or • a protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 1992* or a World Heritage Area; or • a public park or gardens.
Structure	dam or levee.
Spillway	a weir, channel, conduit, tunnel, gate or other structure designed to permit discharges form the dam, normally under flood conditions or in anticipation of flood conditions.
suitably qualified and experienced person in relation to regulated structures	a person who is a Registered Professional Engineer of Queensland (RPEQ) under the provisions of the *Professional Engineers Act 2002*, and has demonstrated competency and relevant experience: • for regulated dams, an RPEQ who is a civil engineer with the required qualifications in dam safety and dam design. • for regulated levees, an RPEQ who is a civil engineer with the required qualifications in the design of flood protection embankments. Note: It is permissible that a suitably qualified and experienced person obtain subsidiary certification from an RPEQ who has demonstrated competence and relevant experience in either geomechanics, hydraulic design or engineering hydrology.
system design plan	a plan that manages an integrated containment system that shares the required DSA and/or ESS volume across the integrated containment system.
the Act	the *Environmental Protection Act 1994*.
µS/cm	microsiemens per centimetre.
void	any constructed, open excavation in the ground.

watercourse	has the meaning in Schedule 4 of the *Environmental Protection Act 1994* and means a river, creek or stream in which water flows permanently or intermittently— • in a natural channel, whether artificially improved or not; or • in an artificial channel that has changed the course of the watercourse. **watercourse** includes the bed and banks and any other element of a river, creek or stream confining or containing water.
Waters	includes all or any part of a river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, unconfined water in natural or artificial watercourses, bed and banks of a watercourse, dams, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and groundwater.
Water quality	the chemical, physical and biological condition of water.
Water year	the 12-month period from 1 July to 30 June.
Wet season	the time of year, covering one or more months, when most of the average annual rainfall in a region occurs. For the purposes of DSA determination this time of year is deemed to extend from 1 November in one year to 31 May in the following year inclusive.

Appendix 3. Coordinator-General's Recommended Conditions

This appendix includes recommendations, made under section 52 of the SDPWO Act. The recommendations relate to the applications for development approvals for the project.

While the recommendations guide the assessment managers in assessing the development applications, they do not limit their ability to seek additional information nor power to impose conditions on any development approval required for the project.

Schedule 1. Approvals under the *Environment Protection and Biodiversity Conservation Act 1999*

It is recommended that the Commonwealth consider the following recommended conditions of approval in addition to the State's conditions listed in Appendices 1 and 2.

Condition 1. Disturbance limits

To protect EPBC Act listed threatened species and communities within the project area, the maximum disturbance limits as listed in the table below apply to the project. The approval holder must not exceed these maximum disturbance limits.

Table 1 – MNES maximum disturbance limits

TECs	Maximum disturbance limits (ha)
Blue-grass-dominant grasslands of the Brigalow Belt Bioregions (North and South)	40.1
Brigalow (*Acacia harpophylla dominant and co-dominant*)	24.6
Threatened species	Maximum disturbance limits (ha)
Belson's panic (*Homopholis belsonii*)	70.8

Condition 2. MNES Management Plan

(a) To mitigate impacts to EPBC Act listed threatened species and communities arising from the project, the approval holder must develop an MNES Management Plan (MMP) for the management of MNES species and communities that have been confirmed at the project site or that may be located at the project area.

The MMP must be submitted to the Minister for approval at least three months prior to the commencement of project construction activities.

(b) The MMP must be consistent with relevant recovery plans, threat abatement plans, conservation advice and any plan required under another condition of this approval and must include:

(i) a description of the habitat to be impacted

(ii) details of the potential impacts to EPBC listed species and communities for each project stage, including impacts from:

(1) vegetation clearing

(2) mine dewatering impacts

(3) ecological function changes to habitat, including habitat connectivity, species function and behaviour, composition and size of populations, and death or injury to individuals,

(4) hydrological changes due to project structures

(5) weeds and pests

(6) road works

(iii) measures that will be undertaken to mitigate and manage impacts resulting from the action. These measures must include:

(1) the implementation of measures contained in relevant guidelines, policies and plans (such as recovery plans) to determine measures specific for each species affected by the proposed action

(2) the use of fauna spotters prior to and during all clearing activities to ensure impacts on EPBC listed species and communities are minimised

(3) measures to prevent stress, injury or and mortality of EPBC listed fauna species

(4) measures to protect EPBC listed species and communities and their habitat located in the project area, including adjacent to cleared areas

(5) measures to rehabilitate all areas of EPBC listed species and communities habitat during project stages

(iv) details of how the MMP will be updated to incorporate and address outcomes from research undertaken for EPBC listed species and communities under this approval

(v) a monitoring program to determine the success of mitigation and management measures. The monitoring must:

(1) clearly set out trigger levels or criteria for assessing the success of management measures

(2) measure the success of the management measures against trigger levels

(3) outline how milestones and compliance will be reported on.

(vi) corrective measures to be implemented if trigger levels are exceeded.

(c) For all MNES that were confirmed at the project site or that may be located at the project area, the MMP is to describe the process for pre-clearance surveys that will be undertaken prior to construction activities relating to all project works. In the case of confirmed species, the surveys are required to understand if additional members of the species are present.

(d) Should MNES species be located, the MMP is to indicate how the species is to be managed.

(e) The MMP is to include process for notification of the discovery to the Department of Agriculture, Water and the Environment (DAWE) within five business days. The proponent is required to propose how the species is to be managed and to seek advice from DAWE on the undertaking.

(f) The approval holder cannot commence construction of the action until the MMP has been approved by the Minister in writing.

(g) The approval holder must publish the MMP on their website within 10 business days from the day of receiving the Minister's approval of the MMP in writing.

(h) The approved plan must be implemented.

Condition 3. Offsets

The approval holder must provide environmental offsets for authorised unavoidable impacts to 40.1ha of Bluegrass dominant grasslands of the Brigalow Belt Bioregions (North and South), 24.6 ha of Brigalow (*Acacia harpophylla dominant and co-dominant*) and 70.8ha of Belson's panic (*Homopholis belsonii*) in accordance with the EPBC Act Environmental Offsets Policy (October 2012).

Condition 4. Offset Management Plan

(a) The approval holder must submit an Offset Management Plan to the Minister for approval at least three (3) months prior to commencement of construction for the project.

(b) The Offset Management Plan must be consistent with relevant Recovery Plans, threat abatement plans, conservation advice and project species management plans, including the Bluegrass Offsets Management Plan (Appendix J.8, EIS, New Acland Coal Mine Stage 3 project).

(c) The Offset Management Plan must include:

(i) details of the offset areas (including maps in electronic Geographic Information System format), site descriptions, environmental values relevant to MNES, amounts of primary habitat for each EPBC listed species, connectivity with other habitat and biodiversity corridors, a rehabilitation program, and conservation and management measures for long-term protection

(ii) a detailed survey and description of the condition of the offset area/s prior to any management activities, including existing EPBC listed species and communities which has the potential to be restored or improved (the baseline condition)

(iii) details of how the offset/s have been or will be legally secured

(iv) a description of the potential risks to the successful implementation of the Offset Management Plan, and include details of the contingency measures that will be implemented to mitigate against these risks

(v) management measures for EPBC listed species and communities and EPBC listed species habitat

(vi) a monitoring program for the offset site/s. The monitoring program must:

(1) clearly set out performance indicators

(2) measure the success of management measures against stated performance criteria

(3) include monitoring parameters, frequencies, triggers, corrective actions, timing and scope for the duration of the project approval

(vii) details of how the plan will be updated to incorporate and address outcomes from research undertaken for EPBC listed threatened species and communities

(viii) an outline of how milestones and compliance will be reported

(ix) details of who will be undertaking monitoring, review, and implementation of the Offset Management Plan (if this person is not the approval holder).

(d) The Offset Management Plan must be approved by the Minister in writing prior to the commencement of the project.

(e) Offsets detailed in the Offset Management Plan must be legally secured within two years of commencement of the project or as required under relevant Queensland legislation, whichever is earlier.

(f) The approved Offset Management Plan must be implemented.

Schedule 2. Approvals under the *Transport Infrastructure Act 1994*

Condition 1. Transport - general requirement

At all times and for each stage for the project, the proponent must maintain the safety, condition and efficiency of rail and state -controlled and local roads.

Condition 2. Road impact assessment and road-use management plan

(a) To demonstrate compliance with recommended condition 1: Transport - general requirement, the proponent, in consultation with the Department of Transport and Main Roads (DTMR) and Toowoomba Regional Council (TRC), must:

(i) Finalise the road impact assessment (RIA) for each stage of the project to assess impacts on the safety, efficiency and condition of state-controlled and local roads.

The RIA must:

(1) be developed in accordance with the DTMR Guidelines for Assessment of Road impacts of Development (2006) (GARID) and/or as required by TRC and include a completed DTMR 'Transport Generation proforma' detailing project-related traffic and transport generation information or as otherwise agreed in writing with DTMR and TRC

(2) use DTMR's Pavement Impact Assessment tools or such other method or tools as agreed in writing with DTMR and/or TRC

(3) clearly indicate where detailed estimates are not available and document the assumptions and methodologies that have been previously agreed in writing with DTMR and relevant LGA, prior to RIA finalisation

(4) identify and detail the final impact mitigation proposals, specifically:

(A) A T-intersection located at the proposed New Acland Stage 3 mine infrastructure access (MIA) road/Oakey-Cooyar Road designed and constructed in accordance with DTMR's Road Planning Design Manual, Chapter 13: Intersections at grade. (Note: Oakey-Cooyar Road (No 417) may also be known locally as Peachey–Maclagan Road)

(B) Acland-Sabine Road/ Oakey-Cooyar Road will require signage to be erected in accordance with DTMR's Manual of uniform traffic control devices (MUTCD).

(C) the proposed road closure at Acland-Silverleigh Road between Oakey-Cooyar Road and the eastern boundary of Acland town will require the road boundary and existing road surface be scarified and returned to its natural state and a table drain constructed in accordance with DTMR's Road Planning Design Manual.

(D) subject to the proposed realignment of Jondaryan-Muldu Road around the mining lease area being approved, alternate access for light vehicles travelling south from Acland to Jondaryan is to be delivered prior to the partial closure of the section of Jondaryan-Muldu Road that traverses the stage 3 mine lease area.

(E) This access is to be, at a minimum, spray sealed in accordance with Pavement Structural Design specifications of the Ausroads standard.

(5) be approved in writing by DTMR and TRC no later than six (6) months prior to the commencement of significant construction works, or as otherwise agreed between the proponent, DTMR and TRC.

Condition 3. Road-use management plan (RMP)

(a) Prepare a road-use management plan (RMP) to deal with each stage of the project. The RMP must:

(i) be developed in accordance with DTMR's Guide to Preparing a Road-use Management Plan and/or as required by TRC, with a view to also optimising project logistics and minimising road-based trips on all state-controlled and local roads;

(ii) include a table listing RMP commitments and provide confirmation that all works and road-use management strategies have been designed and/or will be undertaken in accordance with all relevant DTMR standards, manuals and practices and/or as required by TRC; and

(iii) be approved in writing by DTMR and TRC no later than six (6) months prior to the commencement of significant construction works, or as otherwise agreed between the proponent, DTMR and TRC.

Condition 4. Upgrades and required works

(a) Prior to the commencement of significant project-related construction works, the proponent must:

(i) upgrade any necessary intersection/accesses and undertake any other required works in State-controlled and/or LGA road reserves, in accordance with the current and/or LGA road planning and design policies, principles and manuals, unless otherwise agreed in writing with the DTMR Downs South West Regional Office and/or TRC;

(ii) prior to undertaking any of these works and as required above, obtain the relevant licences and permits, for example, under the *Transport Infrastructure Act 1994* for works and project facilities/infrastructure within the state-controlled road corridor; and

(iii) undertake any required works and other impact mitigation strategies as required by the RIA and RMP, in accordance with latest relevant DTMR and TRC policies and standards at the time of approval or agreement, prior to commencement of significant construction works unless otherwise agree to in writing by DTMR and TRC.

Condition 5. Rail and road transport of coal and dust emissions

(a) In relation to road and rail transport of coal and managing coal dust emissions, the proponent must:

(i) prepare a Coal Dust Management Plan comprising two parts, identifying control measures to mitigate the emission of dust from loaded and unloaded coal haulage trains (Part 1) and from vehicles during haulage of New Acland coal on public roads (Part 2);

(ii) in Part 1 when the proponent is transporting coal via Queensland Rail's South West Rail System or alternate rail systems, the proponent will comply with commitments stated in the South West System Coal Dust Management Plan (2013) including the use of coal surface veneering on loaded coal wagons, and

(iii) in Part 2 (covering haulage of New Acland coal on public roads), the Coal Dust Management Plan must be in accordance with the Department of Transport and Main Roads Smart Practice Guide: Load containment requirements for haulage of coal on Queensland public roads (2014), and include measures to effectively manage coal dust emissions and the safety of other road users while loading and hauling coal on public roads.

(iv) The Coal Dust Management Plan is to be provided to the DTMR for review and comment no later than three months prior to the project's operations phase.

Condition 6. Road permits, approvals and traffic management plans

(a) To ensure efficient processing of the project's required transport-related permits and approvals, the proponent should, no later than three (3) months, or such other period agreed in writing with DTMR and/or TRC, prior to the commencement of significant construction works or project-related traffic:

(i) submit detailed drawings of any works required to mitigate the impacts of project-related traffic for DTMR and TRC's review and approval

(ii) obtain all relevant licences and permits required under the *Transport Infrastructure Act 1994* for works within the state-controlled road corridor (s.33 for road works approval, s.62 for approval of location of vehicular accesses to state roads and s.50 for any structures or activities to be located or carried out in a state-controlled road corridor)

(iii) prepare a Heavy Vehicle Haulage Management Plan for any excess mass or over-dimensional loads for all phases of the project in consultation with DTMR's Heavy Vehicles Road Operation Program Office, the Queensland Police Service and TRC.

(iv) prepare Traffic Management Plan/s (TMP) in accordance with DTMR's Guide to preparing a Traffic Management Plan and/or as required by TRC. A TMP must be prepared and implemented during the construction and commissioning of each site where road works are to be undertaken, including site access points, road intersections or other works undertaken in the state-controlled road corridor.

Condition 7. Completing required road works before commencement of significant project traffic

(a) In accordance with timeframes stated above, the proponent must, prior to the commencement of any significant project-related construction traffic, complete the required works/ make contributions towards works as required, unless otherwise agreed in writing with the DTMR Downs South West Regional Office:

(i) upgrade any necessary intersection/accesses and undertake any other required works in accordance with the current road planning and design policies, principles and manuals, unless otherwise agreed in writing with the Downs South West Regional Office

(ii) construct any required road works before commencement of project-related construction traffic

(iii) implement the approved Traffic Management Plan when undertaking any works during construction and commissioning of the above mentioned intersection upgrade.

Condition 8. Queensland Rail permits, approvals and advice

(a) For the proposed rail spur and balloon loop, the proponent is required to gain approval under section 55 of the *Transport (Rail Safety) Act 2010*. The organisation that will have effective management and control of the construction will need to be registered if the infrastructure is classified as a private siding.

(b) The proponent will require rail crossing approval from DTMR under section 255 of the *Transport Infrastructure Act 1994* where changes to rail crossings or new rail crossings are proposed.

(c) The applicant must provide an ALCAM (Australian Level Crossing Assessment Model) assessment for proposed open level crossing or proposed changes. The ALCAM assessment must address the following:

(i) current and existing traffic flow and train movements;

(ii) expected future traffic flow; and

(iii) mitigation measures to address any issues identified in the ALCAM assessment.

(d) Before work commences on constructing the spur line and balloon loop, the proponent must have an effective management and control of the construction. Contact Rail Regulation Unit as per details in the header for further advice. The organisation will need to be registered as a minimum (if the infrastructure is classified as a private siding) and may potentially require rail safety accreditation as rail infrastructure manager.

(e) Operation of rollingstock on a private siding requires accreditation as a rail transport operator (rollingstock operator) and will require endorsement from DTMR under s39 of the *Transport (Rail Safety) Act 2010*.

The Department of Transport and Main Roads has jurisdiction for recommended conditions 1-8 inclusive.

Schedule 3. Approvals under the *Water Act 2000*

Condition 1. Water Security

(a) In accordance with relevant conditions of the Environmental Authority, the proponent must collect data that identifies natural groundwater level trends for identification of water level impact to authorised water users from the mining operation on authorised water users.

(b) Within 2 years following the granting of the mining lease/s for the New Acland Coal Mine Stage 3 project, the proponent must provide a report to each potentially unduly affected authorised water user and the administering authority. The report must include a summary of the collected baseline information and address potential impacts to the groundwater supplies of those users.

(c) In the report required by condition (b), the proponent must:

  (i) Identify operational bores for each potentially affected authorised water user

  (ii) For each operational bore:

    (1) Identify natural groundwater levels and water quality;

    (2) Identify the condition and supply capacity of the bore;

    (3) Identify the operational requirements and current use of the bore;

    (4) Clearly outline the predicted decrease in water level at the bore due to proposed mining operations;

    (5) Provide an initial assessment of the likely water supply impacts to the affected authorised water users, and timing of those impacts, during and following the project activity;

    (6) Outline of the potential future actions (make good measures) which would ensure the potentially affected authorised water users will have access to a reasonable quantity and quality of water for the authorised use and purpose of the bore/s.

(d) The proponent must enter into agreement with all potentially 'unduly affected' water users (as defined in conditions of the water licence or relevant legislation at the time) about the make good measures outlined in condition (c), or other negotiated arrangement.

(e) If, after advice from the parties that agreement pursuant to condition d) cannot be reached, and in the opinion of the responsible Chief Executive all reasonable attempts have been made to achieve agreement, then the relevant administering authority may, in consultation with the licensee and the unduly affected water user, determine the make good measures to be taken pursuant to the relevant legislative instrument at the time.

(f) The agreement must be entered into, at least three (3) years prior to the time an 'unduly affected' water user is predicted to become 'unduly affected' due to dewatering operations (based on the latest version of the Acland Coal project numerical groundwater model at the time).

DRDMW is to have jurisdiction for this recommended condition.

Condition 2. General requirements- Commonwealth Basin Plan aquifers Oakey Creek Alluvial aquifer

(a) Following collection and analysis of groundwater monitoring data obtained from monitoring bores in the Walloon Coal Measures and Oakey Creek Alluvium (pursuant to relevant conditions of the Environmental Authority) and as a component of the 2nd and subsequent reviews of the New Acland Coal numerical groundwater model pursuant to relevant conditions of the Environmental Authority, the proponent must present a peer reviewed report outlining the impact on the Oakey Creek Alluvial aquifer for approval by the relevant administering authority. The report must:

  (i) establish any identified impact associated with mining activities, if any, on the Oakey Creek Alluvial aquifer

(ii) include an assessment of natural and potential pumping based water level variation caused by non mining authorised users, in the Oakey Creek Alluvial aquifer

(iii) outline any requirements for additional modelling or monitoring required

(iv) if the investigation under recommended condition 2(a) concludes that there is an identified impact on the Oakey Creek Alluvial aquifer as a result of mining activities, the proponent must determine the volumetric impact associated with the identified impact

(v) if the impact is determined to be the result of mining activities, the proponent may be required to construct additional monitoring bores. Additional monitoring bores are to be incorporated in the Groundwater Monitoring and Management Plan pursuant to the environmental authority for the New Acland Coal Mine Stage 3 project and obtain any necessary authorities as a result

(vi) the proponent must offset any take of water from the Oakey Creek Alluvial aquifer identified in accordance with the above condition as determined by the relevant administrative authority.

DRDMW is to have jurisdiction for this recommended condition.

Condition 3. Main Range Volcanics aquifer

(a) The proponent must determine the long term volumetric impact of the take of water from the Main Range Volcanics aquifer and incorporate this into the 2nd review of the New Acland Coal numerical groundwater model pursuant to Conditions 10-12 of Appendix 1.

(b) The proponent must offset any long term take of water from the Main Range Volcanics aquifer as determined by the administrating authority for the *Water Act 2000*.

DRDMW is to have jurisdiction for this recommended condition.

Schedule 4. Proponent commitments

Recommendation 1. Commitments

The proponent is required to undertake the New Acland Coal Mine Stage 3 project in line with commitments made in Appendix D: Commitments register, AEIS (August 2014), New Acland Coal Mine Stage 3 project or as otherwise changed by:

- New Hope Group, *Request to change a condition, New Acland Coal Mine Stage 3 Project*, 4 December 2018
- New Hope Group, *Request to change a condition, New Acland Coal Mine Stage 3 Project*, 24 May 2019
- New Hope Group, *Request to change a condition, New Acland Coal Mine Stage 3 Project*, March 2022.

Acronyms and abbreviations

Acronym / abbreviation	Definition
µS/cm	microSiemens per centimetre
AEIS	Additional Information to the Environmental Impact Statement
AEMP	Air Emissions Management Plan
ANZG	*Australian and New Zealand Guidelines 2018*
change request	New Hope Group, *Request to change a condition, New Acland Coal Mine Stage 3 Project*, February 2022
CGER	Coordinator-General's Evaluation Report
CGCR	Coordinator-General's Change Report
Condamine WQOs	Condamine Water Quality Objectives
DEHP	Department of Environment and Heritage Protection (now the Department of Environment and Science)
DES	Department of Environment and Science
DNRM	Department of Natural Resources and Mines (now the Department of Resources)
DSITI	Department of Science, Information Technology and Innovation
EA	Environmental Authority
EC	Electrical Conductivity
EDO	Environmental Defenders Office
EIS	Environmental Impact Statement
EM Plan	Environmental Management Plan
EP Act	*Environmental Protection Act 1994*
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
EPP (Air)	*Environmental Protection (Air) Policy 2019*
EPP (Noise)	*Environmental Protection (Noise) Policy 2018*
FTE	full-time equivalent
First Remitted Land Court Hearing	The hearing resulting in the decision made on 7 November 2018: *New Acland Coal Pty Ltd v Ashman & Ors (No 7)* [2018] QLC 41
High Court Hearing	*Oakey Coal Action Alliance Inc v New Acland Coal Pty Ltd* [2021] HCA 2
Land Court (2021) Decision	*New Acland Coal Pty Ltd v Oakey Coal Action Alliance Inc. & Ors (No 2)* [2021] QLC 44
km	kilometre
ML	mining lease
MLA	mining lease application
MNES	Matters of National Environmental Significance
MSES	Matters of State Environmental Significance
MR Act	*Mineral Resources Act 1989*
mtpa	million tonnes per annum

Acronym / abbreviation	Definition
NAC	New Acland Coal Pty Ltd
NEPM (Air)	National Environment Protection (Ambient Air Quality) Measure
NMP	Noise Monitoring Program
NVMP	Noise and Vibration Management Plan
OCAA	Oakey Coal Action Alliance Inc.
original objections hearing	The hearing resulting in the decision made on 31 May 2017: *New Acland Coal Pty Ltd v Ashman & Ors and Chief Executive, Department of Environment and Heritage Protection (No. 4)* [2017] QLC 24
project	New Acland Coal Mine Stage 3 project
Second Remitted Land Court Hearing	The hearing resulting in the decision made on 17 December 2021: *New Acland Coal Pty Ltd v Oakey Coal Action Alliance Inc. & Ors (No 2)* [2021] QLC 44
SDPWO Act	*State Development and Public Works Organisation Act 1971*
stage 3 project	New Acland Coal Mine Stage 3 Project
stage 2 project	New Acland Coal Mine Stage 2 Project (existing mine)
Statutory Party Draft EA	The draft EA proposed by the Statutory in the Second Remitted Land Court Hearing
Statutory Party	Department of Environment and Science
TARP	trigger action response plan
TSP	total suspend particulates
WaTERS	Water Tracking and Electronic Reporting System
WRMP	Water Resource Management Plan

Glossary

Term	Definition
coordinated project	A project declared as a 'coordinated project under section 26 of the SDPWO Act. Formerly referred to as 'significant project'.
Coordinator- General	The corporation sole constituted under section 8A of the SDPWO Act and preserved continued and constituted under section 8 of the SDPWO Act.
evaluated project	The project change reports that collectively constitute the project being an 'evaluated project'.
proponent	The entity or person who proposes a coordinated project. It includes a person who, under an agreement or other arrangement with the person who is the existing proponent of the project, later proposes the project.
imposed condition	A condition imposed by the Queensland Coordinator-General under section 54B of the SDPWO Act. The Coordinator-General may nominate an entity that is to have jurisdiction for that condition
stated condition	Conditions stated (but not enforced by) the Coordinator-General under sections 39, 45, 47C, 49, 49B and 49E of the SDPWO Act. The Coordinator-General may state conditions that must be attached to a: • development approval under the *Planning Act 2016* • proposed mining lease under the *Mineral Resources Act 1989* • draft environmental authority (mining lease) under Chapter 5 of the *Environmental Protection Act 1994* • proposed petroleum lease, pipeline licence or petroleum facility licence under the *Petroleum and Gas (Production and Safety) Act 2004* non-code compliant environmental authority (petroleum activities) under Chapter 4A of the *Environmental Protection Act 1994*.

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