

LAND COURT OF QUEENSLAND

CITATION: *Peabody Coppabella & Ors v Department of Environment, Tourism, Science and Innovation* [2026] QLC 20

PARTIES: **Peabody Coppabella Pty Ltd**
(applicant)

and

CITIC Australia Coppabella Pty Ltd
(applicant)

and

Winchester Coal Operations Pty Ltd
(applicant)

and

KC Resources Pty Ltd
(applicant)

and

NS Coal Pty Ltd
(applicant)

v

Environmental Advocacy in Central Queensland Inc.
(non-active objector)

and

**Chief Executive, Department of Environment, Tourism,
Science and Innovation**
(statutory party)

FILE NO: EPA491-25

PROCEEDING: Hearing of objection to amendment application for
environmental authority

DELIVERED ON: 30 September 2026

DELIVERED AT: Brisbane

HEARD ON: 27 August 2026

HEARD AT: Brisbane

MEMBER: JR McNamara

- ORDERS:
- 1. I recommend that the administering authority responsible for the *Environmental Protection Act 1994* approve the application to amend EPML0056213 on the conditions stated in the Final Tracked amended environmental authority contained in Appendix B to these reasons, subject to the following exception.**
 - 2. I recommend that Table C1 in the Final Tracked amended environmental authority be amended to include the following words in the Post Mine Land Description for all Post mine land use areas designated PMLU: “with input from Aboriginal people, the objective being to develop a conservation area useful to Aboriginal people”.**
 - 3. If, however, the text quoted in Order 2 is to be included in the PRCP, the amendment to Table C1 recommended in Order 2 is unnecessary.**
 - 4. I direct that the Registrar of the Land Court provide a copy of these recommendations and reasons to the administering authority under the *Environmental Protection Act 1994*.**

CATCHWORDS: ENERGY AND RESOURCES – MINERALS – COURTS OR TRIBUNALS EXERCISING JURISDICTION IN MINING MATTERS – QUEENSLAND – LAND COURT – where there was an objection to an application to amend an environmental authority – where the amendment seeks to update outdated rehabilitation terminology – to provide clarity during the PRCP transition process – to reflect current or planned disturbance – to reflect an updated disturbance plan of one void – where the objectors did not elect to be active in proceedings – where the evidence is led by the applicant only – where the objections concern inadequacies in staged assessment and unjustified objectives – where the objector says the concerns would result in significant ecological, hydrological and emissions-related detriments – where the Standard Criteria are to be assessed – whether the Court should recommend to the administering authority of

the *Environmental Protection Act 1994* that the application for an amended environmental authority be approved

HUMAN RIGHTS – HUMAN RIGHTS LEGISLATION – *Human Rights Act 2019* – where the Court is acting as a public entity in an administrative capacity – where the Court must give proper consideration to human rights relevant to its recommendation – where the objector identifies no specific human rights – where the applicants and statutory party agree that the relevant rights which may be engaged are property rights and cultural rights – where both parties agree that neither right has been engaged, or at least will not be limited by the approval of the amendment application – where the applicants have approved cultural heritage management plans – where the obligation in the current EA requires applicants to seek the input of Aboriginal people in rehabilitation and conservation outcomes was removed – where the removal is not addressed – whether procedural fairness issue arises – whether text should be reinstated – whether PRCP intended to address the issue

Environmental Offsets Act 2014 (Qld)

Environmental Protection Act 1994 (Qld) s 126C, s 126D, s185, s 190, s 191, s 194, s 194B, s 316R, s 754

Environment Protection and Biodiversity Conservation Act 1999 (Cth)

Human Rights Act 2019 (Qld) s 24, s 28, s 58

Ballymore Resources Limited v Department of Environment, Tourism, Science and Innovation [2025] QLC 15

BHP Coal Pty Ltd & Ors v Chief Executive, Department of Environment, Science and Innovation [2024] QLC 7

Cement Australia (Exploration) Pty Ltd v East End Mine Action Group Inc & Anor [2019] QLC 18

Rolleston Coal Holdings Pty Ltd v Department of Environment, Tourism, Science and Innovation [2025] QLC 22

Telstra Corporation Limited v Hornsby Shire Council (2006) 67 NSWLR 256; [2006] AATA 598

Walker v Noosa Shire Council [1983] 2 Qd R 86

Waratah Coal Pty Ltd v Youth Verdict Ltd & Ors (No 4) [2022] QLC 3

Waratah Coal Pty Ltd v Youth Verdict Ltd & Ors (No 6) [2022] QLC 21

APPEARANCES: J O'Connor of counsel (instructed by Minter Ellison) for the applicants

J James of counsel (instructed by Litigation Unit, Department of Environment, Tourism, Science and Innovation) for the statutory party

Background

- [1] Metallurgical coal for use in blast furnace steelmaking has been extracted from the Coppabella open cut mine since operations commenced in 1998. Initially operating on 3 mining leases¹ (**MLs**), a further 2 MLs² were granted in 2002.³ The product is exported via Dalrymple Bay Coal Terminal.
- [1] The mine is owned by the Coppabella Moorvale Joint Venture (**CMJV**), the **applicants** in this proceeding. The majority interest holder in the CMJV, Peabody Coppabella Pty Ltd, is a fully owned subsidiary of Peabody Energy Australia PCI Pty Ltd (**Peabody PCI**). Peabody PCI manages and operates the Coppabella mine on behalf of the CMJV.
- [1] The applicants hold the current environmental authority (**current EA**) EPML00579213.⁴
- [1] A new regime for the progressive rehabilitation and closure of mining land was introduced in 2019 through amendments to the *Environmental Protection Act 1994* (Qld) (**EP Act**). Transitional arrangements require existing EA holders to submit a progressive rehabilitation and closure plan (**PRCP**) for approval, however, existing rehabilitation and land outcomes in their EA can be transitioned into their PRCP.
- [1] The applicants received a notice dated 19 April 2022 requiring them to transition to the new regime and lodge a PRCP.⁵ The notice issued pursuant to s 754 EP Act required the applicants to submit a proposed PRCP that meets the requirements in ss 126C and 126D of the EP Act.
- [1] The applicants say that: “To assist with that process, they have filed an application to amend their EA.”⁶

¹ ML 70161, ML 70163 and ML 70164.

² ML 70236 and ML 70237.

³ The resource activity occurs on the 5 mining leases (ML 70161, ML 70163, ML 70164, ML 70236, ML 70237) and 1 petroleum lease (PL 1015).

⁴ Current Environmental Authority dated 19 April 2024 [COM.0043].

⁵ DETSI PRCP Transition Notice for Coppabella EA dated 19 April 2022 [PEA.0013].

⁶ Applicant’s Outline of Submissions filed 31 July 2026, paragraph 7.

- [1] The Amendment Application was lodged together with a Supporting Information Report on 16 February 2024 and resubmitted on 2 April 2024 with further information.

- [1] On 16 April 2024, the Chief Executive, Department of the Environment, Tourism, Science and Innovation (**the statutory party**) made an assessment level decision that the Amendment Application constituted a major amendment under the EP Act. Further information was requested and submitted on various dates in 2024 and 2025, including the updated landform design to be used in the PRCP approval process.

- [1] The applicants say the application is designed to ensure that the rehabilitation and land outcomes in the current EA:
 - (a) are sufficiently particularised for PRCP purposes and reflect modern standards;
 - (b) reflect historical and planned disturbance; and
 - (c) reflect the planned final landform, particularly the location and number of residual voids.

- [10] The applicants say that approval of the amendment application will ensure that the rehabilitation and land outcomes can be easily translated into the PRCP, which will have a direct bearing on the balance of the PRCP which will identify rehabilitation milestones, rehabilitation methodologies and management strategies for each of the land outcomes identified.

Application

- [11] The application proposed amendments to Condition C1, Rehabilitation landform criteria, and Condition C4, Residual Voids, only insofar as they relate to Table C1 and Table C3.

- [12] Condition C1 requires that all areas significantly disturbed by mining activities must be progressively rehabilitated to the final land description as defined in **Table C1 – Final land use and rehabilitation approval schedule**.

- [13] Table C1 in the current EA uses outdated rehabilitation terminology.

- [14] The “projective surface area” did not identify the extent of the area that was to be rehabilitated. The amendments are proposed to clearly identify the extent of the area to be disturbed.
- [15] The “post mine land suitability classification” was based on land suitability guidelines for agricultural land evaluation in Queensland. The classifications for all disturbance types in (current EA) Table C1 are Class 4 (unsuitable with severe limitations) or Class 5 (unsuitable with extreme limitations).
- [16] Evidence from Terrestrial Ecology Expert, Brad Dreis, in regard to Class 4 land is that in some circumstances the limitations to the sustainable use of the land in the proposed manner are surmountable with additional knowledge and changes to economics or technology that would enable rehabilitation to a stable post mining land use (**PMLU**). Class 5 land, described as land with extreme limitations, however, is unlikely to ever be suitable for a post mine land use, and is consistent with the PRCP Guidelines and EP Act definition for a Non-Use Management Area (**NUMA**).⁷
- [17] The (current EA) Class 5 designation of areas based on disturbance type meant that 990 ha would be unsuitable for PMLU purposes.
- [18] The applicants say that the amendments sought redesign of the post mine land use to reduce the area of “unsuitable land” from 990 ha designated Class 5 (residual voids and lower slopes) to 501 ha designated NUMA associated with a final water filled void and the steep slopes surrounding it.
- [19] The remaining disturbed land is proposed to be revegetated with native species. That is, the areas to be rehabilitated to a PMLU has been significantly increased.
- [20] Condition C4 of the current EA requires that the residual voids must comply with **Table C3 – Residual void design**.
- [21] Table C3 currently contemplates 4 voids: Creek Pit, Johnson Pit, South Pit and East Pit.
- [22] Operations commenced in the Johnson and Creek Pits in 1998. In 2002, operations extended into East Pit and South Pit. The applicants say that over time, East Pit, South

⁷ Statement of Evidence of Brad Dreis dated 3 July 2026, pages 24-25, sections 7.22-7.26 [PEA.3001].

Pit and Johnson Pit “effectively became one pit” – the Main Pit. There are therefore currently 2 voids.⁸

- [23] The applicants propose to aggregate the voids into a singular residual void which will traverse parts of ML 70164 and parts of ML 70236. They proposed that Table C3 be amended to remove reference to 4 residual voids. The proposed Table C3 retains the total void lake surface area of 80 ha.

Diversions

- [24] The MLs are intersected by a series of ephemeral streams and water channels. Diversion of water channels (including stormwater runoff) away from pits, assists in the separation of clean water from mine affected water, protects the upstream and downstream environment from mining operations, and reduces the risk of pit inundation.
- [25] The original diversions that were put in place over the course of operations were not stable.⁹ Peabody PCI considered the best course was to replace diversions running through the centre of the mine with structures to the west. Two staged diversions have been constructed.
- [26] A third stage diversion is proposed to direct an area of Humbug Gully that intersects the northern part of ML 70236 south to Harrybrandt Creek (the **Stage 3 Diversion**). This diversion is to allow continued mining to the north of East Pit. Without the Stage 3 Diversion, the applicants say that Humbug Gully would, during significant rainfall events, continue to flow through the north of the Main Pit and risk pit inundation and instability, clean water contamination and impacts on the downstream receiving environment, upstream erosion, and impede access to the coal resources. The effect of the Stage 1-3 diversions can be seen in ‘before and after’ images in the affidavit of Brian Neilsen, the Director of Engineering of Peabody Energy Australia Coal Pty Ltd.¹⁰
- [27] On 14 October 2025, the proposal to divert Humbug Gully and carry out associated mining activities was determined to be a controlled action requiring assessment and

⁸ Affidavit of Brian Neilsen filed 27 April 2026, paragraph 36 [PEA.2000].

⁹ Affidavit of Brian Neilsen filed 27 April 2026, paragraphs 41-43 [PEA.2000].

¹⁰ Affidavit of Brian Neilsen filed 10 July 2026, pages 21-22 [PEA.2000].

approval under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (**EPBC Act**). It was determined that the EPBC Act assessment should proceed by way of public environment report. That assessment is ongoing.

- [28] At the State level, the Stage 3 Diversion was approved on 30 July 2026 under a water licence, subject to conditions which include a monitoring and evaluation program that demonstrates the performance of the diversion is consistent with the proposed design.¹¹

Public notification and submissions

- [29] On 6 September 2025 Peabody PCI published a public notice of the Amendment Application in CQ Today Newspaper.¹²
- [30] The notice said that an amendment is required due to the following issues: Inconsistent Surface Area; Unassigned Land Use; Void Configuration Mismatch; NUMA Components Not addressed; and Water Quality Concerns.
- [31] A website address was provided to access the application documents.
- [32] Between 25 September 2025 and 3 October 2025, 11 submissions were received.
- [33] Ten submissions¹³ were made in support of the amendment application: “in order to preserve and continue mining operations”; in support of jobs, ancillary service providers, royalties, and community benefits; to provide certainty for the mine’s future and the broader community; and in support of the applicants’ capacity to comply with environmental conditions.

¹¹ Water License Authority dated 30 July 2026 [PEA.0045]; Water License Schedule B dated 30 July 2026 [PEA.0046].

¹² Application Notice – Public Notification Statutory Declaration dated 14 October 2025 [COM.0025].

¹³ Submission by Rodney David dated 2 October 2025 [COM.0027]; Submission by Robert Holden dated 28 September 2025 [COM.0028]; Submission by MEUQLD dated 1 October 2025 [COM.0029]; Submission by Luke Reid dated 25 September 2025 [COM.0030]; Submission by Lise Poole dated 26 September 2025 [COM.0031]; Submission by Katrina Hawthorn dated 3 October 2025 [COM.0025]; Submission by David Drew dated 3 October 2025 [COM.0034]; Submission by Andrew Macdonald dated 30 September 2025 [COM.0035]; Submission by Abram Consulting International dated 29 September 2025 [COM.0036]; Submission by Jason Hand dated 30 September 2025 [COM.0037].

- [34] Environmental Advocacy in Central Queensland (**EnvA**), a regional association “committed to promoting sustainable land use practices that minimise environmental harm”, submitted that the amendment application ought to be refused.¹⁴
- [35] On 3 November 2025, the Department of Environment, Tourism, Science and Innovation (**DETSI**) decided to approve the amendment application and issued a draft EA EPML00579213¹⁵ (the **draft EA**).

The draft EA

- [36] In the EA Assessment Report under the heading “Other amendments” it says: “In addition to the changes needed to the EA to facilitate approval of the revised residual void location, during assessment of the application several changes were negotiated to better align the EA to the proposed PRCP. These include changes to Table C1 to better align the PMLU of disturbed areas to those proposed in the PRCP and to better define disturbance areas, resulting in a total overall reduction of authorised disturbance.”¹⁶
- [37] The draft EA issued by DETSI included amendments that were not proposed in the amendment application. Peabody PCI on behalf of the CMJV participants accepted and agreed to each condition in the draft EA.
- [38] The additional amendments were:
- (a) conditions A2 and figure 2 – imposing an “authorised disturbance extent” depicted in (new) Figure 2;
 - (b) conditions G39-G42 – requiring the installation of a groundwater monitoring network and the development of a Groundwater Monitoring and Management Program (**GMMP**);
 - (c) condition C5 – requiring an investigation into the optimisation of the post mining land use of the residual void;
 - (d) conditions A4 and A5 – requiring notification of any emergency or incident which results in the release of contaminants and details of resulting investigations;
 - (e) conditions B4-B6 and Table 1 – requiring updated dust and particulate monitoring; and

¹⁴ Submission by Environmental Advocacy in Central Queensland Inc dated 1 October 2025 [COM.0033].

¹⁵ Draft Environmental Authority dated 3 November 2025 [COM.0039].

¹⁶ JCM-04 – Assessment Report dated 7 August 2025, page 6 [DET.0005].

- (f) condition I1 and Table I1 – A Prescribed Environmental Matters Desktop Assessment was completed 1 September 2023 for Peabody Australia Pty Ltd focussed on the occurrence of prescribed environmental matters (**PEMs**) on undisturbed land within the mining lease areas. A “likelihood of occurrence” assessment was undertaken to identify matters of national, state and local significance (**MNES**, **MSES** and **MLES**) known or likely to occur in the relevant area. Condition I1 – I4 provides the conditions, and Table I1 describes the limitations on the location and impacts to PEMs.

[39] Table C1, as it appears in the draft EA, is as follows:

Disturbance Type	Surface Area (ha)		Post Mine Land Description	Post Mine Land Use
Waste Rock Dump	2,019	2,104	Establish a reshaped landform and revegetate with native species	PMLU
	85		Steep upper slopes associated with Residual Void	NUMA
Access Tracks and Haul Roads	52		Establish a reshaped landform and revegetate with native species	PMLU
Co-Disposal Emplacement	220		Native ecosystem exclusive of deep rooted tree species	PMLU
Residual Void	44	460	Establish a reshaped landform and revegetate with native species	PMLU
	416		Single water filled void located outside of floodplain. Maximum void pit lake surface area to be 80ha. Remainder of area to be void walls.	NUMA
Rail Loop	28		Establish a reshaped landform and revegetate with native species	PMLU
Mine Infrastructure (CHPP, Coal Stockpiles, Offices, Workshop, etc)	70		Establish a reshaped landform and revegetate with native species	PMLU
Water Management Structures	79		Establish a reshaped landform and revegetate with native species	PMLU
Western Diversion	87		Establish a reshaped landform and revegetate with native species	PMLU
Total Disturbed	3,100			
Total Undisturbed	634			
Total Area	3,734			

- [40] A further amendment to Table C1 was proposed by Surface Water expert Greg Roads.¹⁷ It was his view that the draft EA should be amended to make clearer that the Waste Rock Dump “Disturbance Type” in Table C1 in the draft EA include the land required for the Humbug Gully diversion channel to ensure the residual catchment is

¹⁷ Statement of Evidence of Greg Roads dated 19 June 2026 [PEA.3000].

prevented from draining into the void. The amendment that Mr Roads proposed was agreed to by DETSI¹⁸ and is reflected in the **Marked EA**¹⁹ as follows:

Disturbance Type	Surface Area (ha)		Post Mine Land Description	Post Mine Land Use
Waste Rock Dump and Associated Humbug Remnant Channel	2,019	2,104	Establish a reshaped landform and revegetate with native species	PMLU
	85		Steep upper slopes associated with Residual Void	NUMA

[41] An amendment to Table C1 which does not appear to be specifically referred to in the filed material is the deletion of the following words that appear in the current EA Table C1 for all areas which would now be described as PMLU outcomes: “... with input from Aboriginal people, the objective being to develop a conservation area useful to Aboriginal people.”

[42] The deletion of those words from Table C1 does not seem to fit with the justification given in the Assessment Report that the additional amendments better align the EA to the proposed PRCP, unless the same input and objective is to be reflected in the PRCP. I say more about that later in these reasons.²⁰

[43] Table C3 – Residual void design, is proposed to be replaced with the following to reflect one aggregate residual void (rather than four).

Void wall – competent rock slope highwall (%)	Void wall – low wall	Void lake surface area (ha)
10V:1H	Between 1V:3H – 1V:4H	80

[44] One final proposed amendment to the draft EA which appears in the Marked EA is to Condition C5. In the draft EA, Condition C5 required the investigation into the optimisation of the post mining land use of the residual void to be undertaken by 30 June 2026. As that date has now passed, the applicants proposed that Condition C5 be changed to require the relevant submission to be made within 3 months after EA approval. That proposed amendment was accepted by DETSI.

¹⁸ Supplementary Affidavit of Juliana McCosker dated 15 July 2026 [DET.0007].

¹⁹ Marked Environmental Authority dated 31 July 2026 [COM.0044].

²⁰ See paragraphs 170-183.

Objection

- [45] On 3 November 2025, DETSI gave the applicants and the submitters written notice of the decision to approve the Application. The written notice attached a copy of the draft EA.²¹
- [46] EnvA lodged an objection on 28 November 2025.²²
- [47] The objection was based on the content of EnvA's 1 October 2025 submission (in response to the amendment application) and supported by their 5 July 2024 submission on the referral for assessment under the EPBC Act.²³
- [48] On 11 December 2025 both the amendment application and the EA objection were referred to the Land Court.
- [49] EnvA did not elect to be an active objector in this proceeding. It has not provided any evidence to support its objection, and it did not provide submissions to the Court. Nevertheless, the Land Court is obliged to consider any objection notice for the application.²⁴
- [50] The issues raised by EnvA on 1 October 2025, prior to the decision to approve the Application, were that:
- (a) NUMA objectives are not justified; and
 - (b) The staged assessment is inadequate.
- [51] The 5 July 2025 submission on referral under the EPBC Act raised concern that the action the subject of the EPBC referral, as expressed by EnvA, would result in:
- (a) Significant impact on threatened species and communities and migratory species;
 - (b) Significant impact on water resources; and
 - (c) Significant impact of Greenhouse Gas (GHG) emissions on MNES.
- [52] The Court must consider each of the matters in s 191 of the EP Act.²⁵ The applicants and the statutory party largely agree on many of the criteria in s 191 and have provided

²¹ Draft Environmental Authority dated 3 November 2025 [COM.0039].

²² Objection Notice Referral Request dated 28 November 2025 [COM.0040].

²³ Objection Notice Referral Request dated 28 November 2025 [COM.0040].

²⁴ *Environmental Protection Act 1994*, s 191(e).

²⁵ Pursuant to s 191(e) *Environmental Protection Act 1994*, I am required to consider any objection notice for the application.

detailed submissions and evidence to support their positions. In the case of the non-contentious matters, I have read the evidence and the parties' submissions, and I agree with their conclusions. Appendix A to these reasons is a summary of the non-contentious s 191 issues, the parties' submissions, and the evidence to support those submissions.

- [53] In this decision, I will turn my attention primarily to the EnvA objections, consideration of the precautionary principle and intergenerational equity, the implications of the *Human Rights Act 2019* (Qld), and matters of procedural fairness.

Justification for NUMA outcomes

- [54] EnvA say that the applicants have not adequately met the regulatory requirements for a NUMA as prescribed by s 126D(2) EP Act which states:

The PRCP schedule may state that land is a non-use management area only if-

- (a) carrying out rehabilitation of the land would cause a greater risk of environmental harm than not carrying out the rehabilitation; or
- (b) both of the following apply-
 - (i) the risk of environmental harm as a result of not carrying out rehabilitation of the land is confined to the area of the relevant resource tenure;
 - (ii) the applicant considers, having regard to each public interest consideration mentioned in section 126E, that it is in the public interest for the land not to be rehabilitated to a stable condition.

- [55] Specifically, EnvA assert that the EP Act requires a proponent to clearly demonstrate that:

- 1.
 - (a) Rehabilitating the land would cause a greater risk of environmental harm than not rehabilitating, or
- 2.
 - (a) The risk of environmental harm as a result of not carrying out rehabilitation of the land is confined to the area of the relevant resource tenure; and
 - (b) The applicant considers, having regard to each public interest consideration, that it is in the public interest for the land not to be rehabilitated to a stable condition.

- [56] They say that the applicants have not adequately met these regulatory requirements because:

- 1. The applicants have not made a reasonable or evidence-based claim that rehabilitating the land would cause greater environmental harm than not rehabilitating the land.

2.

- (a) The applicants have not demonstrated that the risks associated with the proposed NUMA's will be confined to the area of the relevant ML.
 - (i) that the salinity of the water within the proposed final void NUMA will increase over time,
 - (ii) Weather patterns have significantly changed due to the impacts of climate change, and it is very possible that with the more intense droughts and rainfall events, that:
 - A. The exceedance of the predicted maximum void lake water levels may lead to the overflow of contaminated water from the final void NUMAs, or
 - B. The stability of the NUMA may be impacted over time, particularly as the management and maintenance of the voids and drain-lines falls to the landholder following mine closure. The application does not clearly outline the financial assurances or mechanisms that will ensure long-term management and monitoring of the void.
- (b) The applicant has not adequately addressed public interest considerations having only consulted with affected landholders. Instead, their focus appears to be on reducing rehabilitation costs. They say that they strongly assert that leaving land unrehabilitated, especially when it could pose future environmental risks, is not in the public interest and will not serve the needs of future generations.

[57] Finally, EnvA say that no meaningful justification has been provided for how this project is consistent with the legislative requirements associated with rehabilitation nor have any alternatives of retaining the mine voids as a PMLU been provided.

[58] Both the applicants and the statutory party observe that s 126D(2) EP Act relates to requirements for a proposed PRCP schedule. Currently, there is no PRCP schedule in effect for the site. The applicants acknowledge that a PRCP schedule has been submitted and will be subject to assessment under the EP Act.²⁶

[59] The PRCP Guideline Section 6.32 provides as follows:

A key component of the rehabilitation reforms is that they will not be retrospective and that existing approvals will be maintained. In order to preserve these existing approvals, certain provisions of the EP Act will not apply to existing EA holders where a NUMA has already been approved by the administering authority ('pre-approved NUMA').²⁷

[60] The applicants say, and I accept, that as an existing EA holder, they are not required to provide justification for a NUMA in its PRCP schedule provided the requirements

²⁶ Affidavit of Brian Neilsen dated 27 April 2026, paragraph 103 [PEA.2000]; Following approval of the Amendment Application on 3 November 2025, Peabody PCI submitted a PRCP schedule on 12 December 2025; A transitional PRCP was submitted 15 July 2024.

²⁷ Affidavit of Brian Neilsen dated 27 April 2026, exhibit PEA.0014 [PEA.2000].

of s 754(3) of the EP Act have been met. Section 754(3) provides an exclusion from the operation of s 126D(2) for the proposed PRCP schedule if an outcome for the land has been identified under a land outcome document, and the outcome is the same, or substantially similar to the outcome if it were a NUMA under a PRCP schedule.

[61] I refer back to [15]-[18] above where I note that the description associated with the former Class 5 post mine land suitability classification was “unsuitable with extreme limitations”. Mr Dreis considered the Class 5 designation would be consistent with the definition of NUMA. Mr Neilsen says: “Class 5 land is land that is ‘unsuitable’ land with extreme limitations, described as precluding any possibility of successful sustained use of the land in the proposed manner”.²⁸ The applicants submit that the redesign the amendments would authorise, will reduce the area of “unsuitable” NUMA land from 990 ha to 501 ha.

[62] There are 3 further issues under the “NUMA objectives” subject raised by EnvA in their submission:

- (a) Water quality within the residual void;
- (b) Public Interest and Intergenerational Equity; and,
- (c) A lack of alternative PMLU options.

Water quality within the void

[63] In their submission EnvA say:

that the applicants have not demonstrated that the risks associated with the proposed NUMA’s will be confined to the area of the relevant ML;

that the salinity of the water within the proposed final void NUMA will increase over time;

that weather patterns have changed due to climate change with the possibility of more intense droughts and rainfall events which might lead to the overflow of contaminated water from the final void NUMAs; or affect the stability of the NUMA without clear financial assurances or mechanisms that will ensure long-term management and monitoring of the void.²⁹

[64] The statement of Greg Roads, Civil Engineer, Director, WRM Water & Environment Pty Ltd, was filed 22 June 2026.³⁰ Mr Roads’ professional experience and expertise

²⁸ Affidavit of Brian Neilsen dated 27 April 2026, paragraph 76 [PEA.2000].

²⁹ Submission by Environmental Advocacy in Central Queensland Inc dated 1 October 2025, page 3 [COM.0033].

³⁰ Statement of Evidence of Greg Roads dated 19 June 2026 [PEA.3000].

is in hydrology, hydraulics, water quality management and mine site water management.

- [65] Mr Roads' evidence was that salinity of water within the void NUMA will increase over time. He expressed the following opinion:

[11] Water quality within the void is expected to degrade over time due to salt and contaminant accumulation. However, these contaminants remain confined within the void and do not pose downstream risks. In effect, the void will act as a closed system, with no seepage to groundwater or overflow to waterways.

- [66] He opines that the solutes in the stored water cannot escape the void and will not be lost to evaporation.³¹ He says that this could cause harm if consumed by stock or wildlife and barrier protection measures are appropriately discussed and developed as part of the PRCP process.

- [67] As to seepage and overtopping Mr Roads says:

[13] Future climate scenarios (higher evaporation, lower rainfall) may reduce water volumes and quality in the void. Importantly, in my opinion, there is no credible climate scenario that leads to the void draining to groundwater or overtopping to the downstream environment.

[38] ... the final void lake level is not expected to reach the groundwater table level, which is some 40 m below ground level, and as such the water stored in the final void will not report to the downstream waterway under any circumstances. As a result, the void itself would not cause downstream water quality contamination, in my opinion.

[39] The proposed final landform will include a residual void. In my opinion, the assessments undertaken for the application has demonstrated that the void will not seep to the surrounding groundwater or overflow to the surrounding watercourses. That is, the void will not harm the surrounding environment or impact surface water quality.

- [68] The applicants engaged SLR Consulting Australia Pty Ltd to support the preparation of the EA amendment to nominate the final void as a NUMA. Climate change is addressed at 5.3.3 as follows:

According to the Climate Futures Exploration Tool, the climate at the project site in 2090 under the climate scenario RCP 8.5, predicts the area to have approximately 10% increase in annual evaporation and an annual rainfall decrease of 5% (Climate Change in Australia, 2021). These climate change estimates were included in the WBM and confirm the void is still well within the capacity of the void under 100 m AHD and continues a groundwater sink. The increase in evaporation rates also affects the final void water quality. The effects of the climate change scenario result in higher final salinity levels.

³¹ Statement of Evidence of Greg Roads dated 19 June 2026, paragraph 40 [PEA.3000].

- [69] Mr Roads, noting the SLR report, says at [44]: “A review of the current Climate Futures Exploration Tool shows that there is very low consensus in the annual rainfall estimates with moderately more models predicting a drier climate than wetter.”
- [70] He continued at [45]: “Under future climate predictions, the void will likely contain lower volumes of water with reduced water quality. At present there is not a climate change prediction that would allow the void to overflow to the surrounding environment, in my opinion.”
- [71] The applicants say that the draft EA and any future PRCP schedule have sufficient mechanisms to ensure long-term management and monitoring of the void. They note that the PRCP schedule must show progressive improvement over the life of the mine as the climate is changing; including milestones and conditions to meet the objectives of the Queensland Government’s Mined Land Rehabilitation Policy, which also requires demonstration of future stability.
- [72] The issues raised by EnvA in their submission and as described at [63] above have been comprehensively considered by the applicants. Expert reports have been obtained to consider and advise on the potential and expected impacts of concern. I also note the function of the PRCP, and the objective of State Policy as stated above which requires demonstration of future stability. For these reasons, I am satisfied that these matters do not present an obstacle to the proposed amendments to the EA.

Public Interest and Intergenerational Equity

- [73] As discussed earlier, s 126D EP Act describes the requirements for a proposed PRCP schedule. Specifically, a PRCP schedule may state that land is a NUMA only if carrying out rehabilitation would cause greater risk of environmental harm than not carrying out rehabilitation; and, having regard to public interest considerations, that it is in the public interest for the land not to be rehabilitated to a stable condition.
- [74] In their submissions, EnvA say that the applicants, having only consulted with affected landholders, have not adequately addressed public interest considerations; the applicants’ focus appears to be on reducing rehabilitation costs; and that leaving land that could pose future environmental risk unrehabilitated, is not in the public interest and will not serve the interests of future generations.

- [75] The applicants say that the statutory public interest considerations apply when a PRCP schedule is submitted for a new EA application. As noted at [60] above, s 754(3) EP Act provides an exclusion from the operation of s 126D(2) for the proposed PRCP schedule if an outcome for the land has been identified under a land outcome document, and the outcome is the same, or substantially similar to the outcome if it were a NUMA under a PRCP schedule.
- [76] Nevertheless, there is evidence of stakeholder consultation identified in the affidavit of Mr Nielsen; and the amendment application was publicly notified. The applicants also say that there were a number of submissions made supporting the approval of the Amendment Application.
- [77] As to the future environmental risk the unrehabilitated land could pose, I note the evidence of Mr Roads outlined at [65]-[70] above; and the applicants' submission that any potential future risk will be adequately addressed by the conditions in the draft EA or the PRCP process.
- [78] I refer again to [15]-[18] and [61] above, concerning the post mine suitability classification given to the voids in the current EA, in particular the evidence of Mr Nielsen that Class 5 land is unsuitable with extreme limitations, described as precluding any possibility of successful sustained use in the proposed manner. Table C1 in the draft EA does not continue with that form of post mine land suitability classification and instead adopts the contemporary PMLU or NUMA post mining land use classification. What was Class 5 land in the current EA covered an area of 990 ha. Table C1 in the draft EA identifies a lesser area of 501 ha as NUMA, which includes the water filled residual void. Only the water filled residual void, the lower slopes of the waste rock dump and the steep upper slopes associated with the residual void will be NUMAs. All remaining disturbed land identified in Table C1 in the Marked EA³² is classified PMLU.
- [79] As noted at [36] above, the draft EA brought forward additional amendments not proposed in the amendment application. In particular, Condition A2 and Figure 2 impose a restriction on the area of land which may be disturbed.

³² The Marked EA Table C1 includes the amendment proposed by Mr Roads at paragraph 40.

[80] The applicants refer to 2 surface water issues identified by Mr Roads: the Humbug Gully diversion channel around the final void and the changed flow regime in Humbug Gully due to the loss of catchment associated with the final void.

[81] Mr Roads' evidence was that the diversion would positively contribute to the downstream environment if designed with consideration to the "Works that interfere with water in a watercourse for a resource activity - watercourse diversions" Queensland Government guidelines.³³

[82] In Mr Roads' opinion:

The runoff volumes in Humbug Gully would be reduced by the amount of reduction in the catchment area as a consequence of the residual void.

His estimate was that 280 ha of the catchment would be removed representing a 47% loss of the remaining catchment downstream of the Stage 3 diversion, reducing to about 13% at the confluence with Harrybrandt Creek.

The loss of catchment area due to the void would not impact on other potentially more important aspects of the Humbug Gully flow regime, such as the number of flow days and the duration of flow.

The residual void is not expected to have any material impact on the flow regime of Harrybrandt Creek or other creeks further downstream.

The loss of the void catchment (460 ha) is less than 2% of the total Harrybrandt Creek catchment, is in (his) opinion not significant.

The single void would have less of an impact on catchment flows than the previously proposed four voids.³⁴

[83] I accept that there is no change to the post mining land use of the residual voids as the current EA requires the applicants to rehabilitate the land to the equivalent of a NUMA, consequently, to clarify that the residual void is a NUMA is neither contrary to the public interest nor likely to affect future generations.

[84] Further, the draft EA would result in better rehabilitation outcomes than those authorised by the current EA, noting the reduction in the area of the NUMAs, and the increase in the areas to be rehabilitated to a PMLU. The proposal to leave one aggregate void as opposed to four, will result in better terrestrial ecology and surface water outcomes. Consequently, the rehabilitation outcomes will better serve the

³³ Statement of Evidence of Greg Roads, dated 19 June 2026, pages 9-10 [PEA.3000].

³⁴ Statement of Evidence of Greg Roads, dated 19 June 2026, page 11 [PEA.3000].

public interest and the interests of future generations than those authorised under the current EA.

Lack of alternative PMLU options

- [85] EnvA say that the applicants “have not provided any alternatives of retaining the mine voids as a PMLU”.³⁵
- [86] The Class 5 land in the current EA comprises 990 ha and includes the residual voids. At [61] above, I noted that Mr Dreis considered a Class 5 designation would be consistent with the definition of NUMA. In that sense the draft EA does not propose any change to the designation of the residual void.
- [87] The residual void salinity modelling in the Surface Water Final Void Assessment Report indicated an ongoing upward trend eventually reaching a hyper saline state as the predominant outflow mechanism is evaporation.³⁶ Mr Roads’ evidence is that “the void water (is) unlikely to be suitable for stock watering”.³⁷
- [88] However, as noted at [38], proposed new condition C5 in the draft EA requires an investigation into the optimisation of the post mining land use of the residual void. The investigation must include an assessment of options allowing the void low wall to sustain a PMLU. At [44] above, the compliance date for the investigation proposed by the applicants and accepted by the statutory party, is 3 months after EA approval. Mr Neilsen’s evidence is that the fundamental mine planning required for this report is well advanced.³⁸ I am satisfied that all reasonable options have been explored.

Inadequacy of the staged assessment process

- [89] EnvA provided a copy of their 5 July 2024 submission on referral of the project to the commonwealth minister under the EPBC Act.³⁹ In their submission on the proposed amendment to the EA they note the EPBC Act submission regarding impacts on threatened species and communities, water resources, and greenhouse gas

³⁵ Submission by Environmental Advocacy in Central Queensland Inc dated 1 October 2025, page 4 [COM.0033].

³⁶ Response to Information Request dated 5 October 2025 [COM.0023].

³⁷ Statement of Evidence of Greg Roads filed 19 June 2026, page 12, paragraph 43 [PEA.3000].

³⁸ Statement of Evidence of Brian Neilsen filed 27 April 2026, page 29, paragraph 90 [PEA.2000].

³⁹ EPBC Referral Submission Notice dated 5 July 2024 [COM.0041].

emissions.⁴⁰ They say that the staged approach to EA amendments does not provide the opportunity to make meaningful comment on the impacts of the project on the local environment or properly evaluate the full impacts of the proposed project and final landform.

- [90] The applicants note that it is commonplace for projects to require multiple consents from different authorities, citing the observations of Thomas J, in the context of planning law, to that effect in *Walker v Noosa Shire Council*⁴¹. The fact that separate assessment processes exist is a function of the respective Commonwealth and State legislative frameworks, but not of itself a basis to refuse the amendment application.
- [91] The applicants, in their outline of submissions, identify 5 issues raised by EnvA in their submission on the proposed amendment.⁴² These 5 issues are understood by reading the EnvA submission in combination with the EnvA submission to the commonwealth minister on referral under the EPBC Act.⁴³
- [92] It is convenient to adopt the applicants' issue identification.

1. EnvA say that the application concerns a proposed expansion of the Coppabella Mine

- [93] EnvA say that it is aware of the proposed expansion of the mine from the EPBC approval application and supporting information, but the proposal is not included in the EA amendment application.
- [94] The assertion is based on what they describe as planned "alternative alignments" and watercourse "diversions as part of the mine rehabilitation and closure arrangements".
- [95] The current EA does not impose any limit on disturbance. Proposed Condition A2 and Figure 2 in the draft EA would, in fact, place restrictions on the land which may be disturbed. No new disturbance is authorised in the draft EA.
- [96] It is uncontested that the applicants have a valid right to continue mining, and a right to seek the renewal of the mining leases upon their expiration. While the applicants

⁴⁰ Submission by Environmental Advocacy in Central Queensland Inc dated 1 October 2025 [COM.0033].

⁴¹ [1983] 2 Qd R 86.

⁴² Submission by Environmental Advocacy in Central Queensland Inc dated 1 October 2025 [COM.0033].

⁴³ EPBC Referral Submission Notice dated 5 July 2024 [COM.0041].

have planned for 2 production scenarios should the mining leases be renewed, no applications have been filed to extend the terms of the leases.

2. The GHG emission impact as a result of an extension of the life of the mine.

- [97] EnvA say the “proposed Project would extend the life of the mine from (sic) until 2042 which will result in a further 18 years of additional greenhouse gas emissions”.
- [98] The mining leases are due to expire in 2040. The applicants accept that continued mining will result in greenhouse gas emissions.
- [99] The amendment to the EA, if made, will not extend the term of the leases, nor grant additional rights to mine.
- [100] Nevertheless, in September 2025, the applicants submitted a report to the statutory party responding to an information request addressing 21 information items to progress the decision process.⁴⁴ Included was the Coppabella Mine Greenhouse Gas Assessment and Decarbonisation Plan (**GADP**), September 2025, prepared by Katestone Environmental Australia.
- [101] As a medium to high emitter for the purposes of the GHG Guideline, the applicants are required to identify emissions mitigation and management practices and provide a GHG Abatement plan.
- [102] The Mine is an existing facility under the Safeguard Mechanism. It is required to reduce its production-adjusted baseline emissions by 4.9 % per annum to 2030 and thereafter by 3.285 % per annum to 2050.
- [103] The GADP records that “Peabody’s primary objective for the Project is to meet the Commonwealth Safeguard Mechanism emissions reduction requirement to reduce emissions in line with Australia’s emission reduction targets of 43 % below 2005 levels by 2030 and net zero by 2050.”⁴⁵ It further states that the project will be required to purchase and surrender Australian Carbon Credit Units if and when it is unable to meet Safeguard Mechanism emission reduction requirements.

⁴⁴ Response to Information Request dated 5 September 2025, page 110 [COM.0023].

⁴⁵ Response to Information Request dated 5 September 2025, page 145 [COM.0023].

- [104] Finally, the consultants say that the applicants are evaluating additional management practices to further reduce GHG emissions.⁴⁶
- [105] Should the EA be amended in the terms of the Marked EA as proposed, it will not result in an extension to the life of the mine. The GHG emissions impact has been adequately addressed as outlined in paragraphs [100]-[103] above.

3. The projects impact on threatened species and communities

- [106] EnvA say that the project will have significant impacts on threatened species and communities.
- [107] Again, the application to amend the EA does not include an application to renew or extend the term of the MLs, or permit mining outside validly granted mining lease boundaries.
- [108] The applicants accept that continued mining will result in impacts to threatened species and communities.
- [109] In response to the question, to what extent will the proposed final landform impact on MNES and MSES within the mining leases, Mr Dreis answered that the final landform itself will have no impact.⁴⁷
- [110] However, Mr Dreis says that clearing vegetation for future mining activities would result in impacts to several MNES and MSES. The MNES including the greater glider, koala, ornamental snake and squatter pigeon, will be assessed through the EPBC Act referral. The only MSES that are not also MNES that may be impacted are of concern RE 11.3.4 and regional ecosystems within a defined distance of a watercourse. Mr Dreis notes that the current EA does not provide any details regarding impacts to MNES or MSES.
- [111] As noted at paragraph [38] above Biodiversity Conditions I1-I4 and Table I1 were included in the draft EA. Table I1 describes the limitations on the location and impacts to prescribed environmental matters (**PEMs**). Environmental offsets are required for significant residual impacts associated with authorised impacts to PEMs.

⁴⁶ Response to Information Request dated 5 September 2025, page 120 [COM.0023].

⁴⁷ Statement of Evidence of Brad Dreis dated 3 July 2026, page 20 [PEA.3001].

- [112] Mr Dreis considered the maximum disturbance limits in Table II of the draft EA and calculated the area of habitat for MNES and MSES based on regional ecosystem mapping. He said that it was unclear to him how the maximum impact for MNES koala and the greater glider (in ML 70164) were determined based on the available information. However, he went on to say that in his experience it is common for regional ecosystem mapping to have limitations of scale and methods that largely rely on remotely sensed data such as satellite imagery, and that mapping habitat for these species is often conservative. He did not consider the difference he identified between his calculations for koala and greater glider habitat and the maximum impacts for MNES and MSES in Table II of concern. His conclusion was that they are reasonable.
- [113] The applicants say that it is expected that offsets to MNES would be a condition of the EPBC referral.
- [114] The evidence supports a conclusion that the proposed conditions in the draft EA are an improvement on the conditions contained in the current EA. The management of ecological impacts is likely to result in the improved management of ecological impacts and better long-term environmental outcomes.

4. The impact on surface water and likely impact on groundwater

- [115] In their submission on the amendment application, EnvA say that the application relies heavily on yet to be approved waterway diversions as the basis for the proposed final landform. They say that “the request to increase the disturbance areas to allow for mine expansions and waterway diversions should be refused”.
- [116] In their submission on the EPBC Act referral, EnvA say that the proposed Humbug Gully diversion will see the excavation of a new channel which will impact on surface water directly, both through re-diversion of natural water flows and through significant excavation works within waterways.
- [117] The EnvA submission on the EPBC Act referral also says that the project is likely to impact groundwater; that Humbug Gully and Harrybrandt Creeks, and tributaries associated with the Isaac River, have a high potential for terrestrial groundwater dependent ecosystems (**GDEs**).

- [118] An Aquatic Ecology Assessment was prepared for the Humbug Gully referral to consider the impact the diversion might have on MNES.⁴⁸ A site inspection indicated there were no surface expression aquatic GDEs along reaches of Humbug Gully, Harrybrandt Creek, or Thirty Mile Creek within the study area.
- [119] Surface water and perceived groundwater impacts were addressed by Mr Roads and his evidence on these matters is summarised at [65]-[70] and [78]-[82] above.
- [120] It is also noted at [40] above that Mr Roads suggested an amendment to Table C1, which the applicants accept and to which the statutory party has agreed, to address the impacts on the land required for the Humbug Creek diversion channel.
- [121] I accept the evidence of Mr Roads that water quality within the void is likely to degrade over time, but that there is no downstream risks as the void is a closed system, with no seepage to groundwater or overflow to waterways. Further, I accept the evidence that there is no credible climate scenario that would lead to the void draining to groundwater. Again I note that the PRCP schedule must show progressive improvement over the life of the mine as the climate is changing.

5. The existing land clearing approvals are not in line with current environmental requirements.

- [122] EnvA say that land clearing was not approved in the current EA and that the proposed waterway diversions have not received State government approval.
- [123] The applicants say simply that existing approvals cannot, without legislative basis, be retrospectively rescinded.
- [124] As explained at [24]-[28] the plans to divert part of Humbug Gully is related to the amendment application. I note at [28] that the Stage 3 Diversion was approved on 30 July 2026 under a water licence, subject to conditions.
- [125] The Water Licence⁴⁹ authorises interference with the flow of water for a total length of 5,648 metres, which is the combined length of the Stage 1 (1,560 m), Stage 2 (2,290 m) and Stage 3 (1,798 m) diversions.

⁴⁸ Aquatic Ecology Report prepared by Ecological Service Professionals (ESP) dated 25 January 2024 [COM.0024].

⁴⁹ Number 628377.

The matters to be considered for objections decision

- [126] At the hearing, the applicants and the statutory party were agreed as to all conditions of the Marked EA. At my request, following the hearing the parties prepared and provided a marked-up document, in tracked changes, which identifies all the proposed changes to the EA. That version, the **Final Tracked amended EA**, is Appendix B to these reasons.
- [127] Appendix A identifies in the filed material the evidence presented relevant to each of the criteria that the Court must consider for the objections decision. That material has been read and considered, together with the parties' submissions. I am satisfied that the evidence and the submissions concern the matters to be considered in the objections decision.
- [128] Section 191(g) EP Act also requires consideration of the standard criteria.
- [129] The standard criteria are defined to mean, amongst other things, the principles of environmental policy as set out in the Intergovernmental Agreement on the environment. Those principles are the precautionary principle; intergenerational equity; and the conservation of biological diversity and ecological integrity.

The precautionary principle

- [130] In *Rolleston Coal Holdings Pty Ltd v Department of Environment, Tourism, Science and Innovation*⁵⁰, I said the following regarding the precautionary principle:

[30] As noted by President Kingham in *Waratah Coal Pty Ltd v Youth Verdict Ltd & Ors (No 6)* citing Preston CJ in *Telstra Corporation Limited v Hornsby Shire Council* at [142], the precautionary principle has a protective function:

“...to require the decision-maker to assume that there is, or will be, a serious or irreversible threat of environmental damage and to take this into account, notwithstanding that there is a degree of scientific uncertainty about whether the threat really exists.”

[31] The principle embraces the concept of proportionality. Measures taken in applying the principle should not go beyond what is appropriate and necessary to achieve the objectives, recourse should be had to the least onerous measure, and the disadvantages should not be disproportionate to the aims.

(citations omitted)

⁵⁰ [2025] QLC 22.

- [131] The applicants say that the final landform has the potential to impact on water resources. At paragraphs [115]-[121] above, I refer to the surface water and perceived groundwater impacts, the evidence of Mr Roads, and the proposal advanced and accepted to further amend the draft EA to address the impacts on the land required for the Humbug Creek diversion channel. The Final Tracked amended EA at Appendix B records the amendment to Table C1 to address these impacts.
- [132] At paragraphs [97]-[105] under the heading: “The GHG emission impact as a result of an extension of the life of the mine”, I note the September 2025 report submitted by the applicants to the statutory party responding to an information request addressing 21 information items to progress the decision process.⁵¹ Included was the GADP.⁵² I also note the applicants’ obligations to comply with the Safeguard Mechanism and reduce its production-adjusted baseline emissions by 4.9 % per annum to 2030 and thereafter by 3.285 % per annum to 2050.
- [133] At [109]-[110] noting that the current EA does not provide any details regarding impacts to MNES or MSES, I refer to the evidence of Mr Dreis that clearing remnant vegetation for future mining activities would result impacts to several MNES and MSES. The MNES including the greater glider, koala, ornamental snake and squatter pigeon, will be assessed through the EPBC Act referral. It is expected that the imposition of offsets will result from the EPBC Referral.
- [134] Further, as noted above, proposed Condition I1-I4 and Table I1 introduce biodiversity conditions to the draft EA. Condition I1-I4 provide the conditions and Table I1 describes the limitations on the location and impacts to PEMs. Environmental offsets are required for significant residual impacts associated with authorised impacts to PEMs.
- [135] The applicants’ submission is that if the precautionary principle is engaged, appropriate consideration has been given to the principle by the applicants and the statutory party.
- [136] I accept that conclusion.

⁵¹ Response to Information Request dated 5 October 2025 [COM.0023].

⁵² Response to Information Request dated 5 October 2025, page 110 [COM.0023].

Intergenerational equity; conservation of biological diversity and ecological integrity

[137] The definition of intergenerational equity adopted by President Kingham in *Waratah Coal Pty Ltd v Youth Verdict Ltd & Ors (No 6) (Waratah No 6)*⁵³ and subsequently by President Stilgoe in *Ballymore Resources Limited v Department of Environment, Tourism, Science and Innovation*⁵⁴ is that:

... the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.⁵⁵

[138] Env A in the context of “leaving land unrehabilitated”, that is, the proposed NUMA areas, say that this could pose future environmental risk and is “not in the public interest and will not serve the needs of future generations”.

[139] The applicants say that the changes proposed by the amendment application will result in a better environmental outcome (than the current EA would achieve) which will maintain and enhance the environment for future generations.

[140] The applicants point to the GADP, and the steps taken, and to be taken, to reduce emissions, and the obligations on the Mine as a result of being a Safeguard Facility.

[141] It is noted that clearing will impact MNES and MSES however new biodiversity conditions proposed by the statutory party and accepted by the applicants require an environmental offset in accordance with the *Environmental Offsets Act 2014* (Qld) and the Queensland Environmental Offsets Policy for the maximum extent of impact to each PEM authorised in Table I1. The relevant PEMs are found under the heading: Regulated Vegetation. The PEMs under the heading: Protected Wildlife Habitat, include the Greater Glider, Koala, Ornamental Snake and the Squatter Pigeon, are all subject to Commonwealth assessment under the EPBC Act where it is reasonable to expect that offsets will be required once the assessment is completed.

[142] The applicants submit that the conservation of biological diversity and ecological integrity will be improved as a result of the changes proposed by the amendment application. The applicants note the statutory party assessment report as follows:

The assessing officer is satisfied that the proposed amendment will not compromise biodiversity or ecological integrity for the State in a lasting way.

⁵³ [2022] QLC 21.

⁵⁴ [2025] QLC 15.

⁵⁵ *Waratah Coal Pty Ltd v Youth Verdict Ltd & Ors (No 6)* [2022] QLC 21 [119].

Significant residual impacts to MNES and MSES areas will require offsets prior to any disturbance to these areas. Many aspects for the site will be required to be rehabilitated and revegetated with native species to restore ecological values post mining.⁵⁶

- [143] I am satisfied that the amendments to the EA better reflect the actual and current circumstances of the mine, are more contemporary, and are therefore better understood in terms of environmental outcomes and are better suited for the future of the mine, the landform and the environment. The inclusion of a number of new conditions at the instigation of the statutory party, and certain changes proposed by the applicants, should in fact lead to better environmental outcomes.

Human Rights

- [144] That the Land Court is subject to s 58(1) of the *Human Rights Act 2019* (**HRA**) in fulfilling its function under the EP Act is beyond question.⁵⁷ The 5-step process in applying and considering human rights implications adopted by the Court provided the structure for the parties' submissions.

- [145] There are no specific human rights identified in EnvA's objection.

- [146] The applicants and the statutory party agree that the relevant rights which may be engaged by the amendment application are property rights (s 24) and cultural rights (s 28). Both agree that that neither right has been engaged, or if it has it will not be limited by the approval of the amendment application. But if not, they agree that any such limitation is demonstrably justified.

- [147] In the statutory party's Application Checklist (Merged Checklist) Table 1.9 p16 "Human Rights Impact Assessment" in reference to s 24 HRA and property rights it says:

Property rights may be relevant as the land that is the subject of the amendment application is partially owned by individuals and will be returned to them after mining.

The decision to make the amendment application properly made is not expected to limit this right as this decision does not approve the amendment

⁵⁶ JCM-04 – Assessment Report dated 7 August 2025, page 40 [DET.0005].

⁵⁷ *Waratah Coal Pty Ltd v Youth Verdict Ltd & Ors* (No 6) [2022] QLC 21; *Cement Australia (Exploration) Pty Ltd & Anor v East End Mine Action Group Inc & Anor* [2019] QLC 18; *BHP Coal Pty Ltd & Ors v Chief Executive, Department of Environment, Science and Innovation* [2024] QLC 7; *Rolleston Coal Holdings Pty Ltd v Department of Environment, Tourism, Science and Innovation* [2025] QLC 22.

application or make any determination about how the land should be used or returned to the individual owners.⁵⁸

[148] The second paragraph above limits the consideration of human rights only to the decision as to whether the amendment application was properly made (as opposed to the amendment application itself).

[149] At Table 1.9 p16-17 of the same Application Checklist in reference to cultural rights and s 28 HRA it says:

Cultural rights of Aboriginal and Torres Strait Islander peoples may be relevant as the land that is the subject of the amendment application is the traditional land of Aboriginal peoples (the Barna/ Barada/ Kabelbara/ Yetimaralaand people). Coppabella Mine is located on land with a Native Title claim determination.⁵⁹

[150] Again, in the same Application Checklist document there is a Human Rights Assessment at Table 2.9.⁶⁰ Cultural rights and s 28 HRA are again addressed where the content immediately above is repeated, but with the addition of the following:

It is clear from the EA that disturbed areas are to be rehabilitated to a native ecosystem **with input from Aboriginal people, the objective being to develop a conservation area useful to Aboriginal people, or to be complementary to such a land use.** (emphasis added)

[151] The applicants in the Supporting Information Report, February 2024 to their application to amend the EA, under the heading “Other disturbance domains” say:

All land disturbed by mining, except for the proposed NUMA(s), **will have a PMLU of native vegetation or a conservation area useful to Aboriginal people in accordance with Table C1 of the EA (Table 3). The PMLUs of native vegetation and a conservation area useful to Aboriginal people are both considered a type of native ecosystem PMLU.** (emphasis added)⁶¹

[152] As noted already, Table C1 in the current EA provided for input from Aboriginal people to establish a landform and revegetate all the Class 4 areas with the objective of developing a conservation area useful to Aboriginal people.⁶²

[153] This might be read as a recognition of the distinct cultural rights of the traditional owners of the land.

⁵⁸ JCM-03 – Merged properly made application checklist dated 17 January 2023 [DET.0004].

⁵⁹ JCM-03 – Merged properly made application checklist dated 17 January 2023, page 33 [DET.0004].

⁶⁰ Page 33.

⁶¹ Supporting Information Report dated 16 February 2024, page 23 [COM.0006].

⁶² Current Environmental Authority dated 19 April 2024 [COM.0043].

- [154] The applicants' statement that: "The PMLUs of native vegetation and a conservation area useful to Aboriginal people are both considered a type of native ecosystem PMLU", was presented in support of and to justify the re-designation of the current Class 4 areas as PMLU areas, as opposed to NUMA.
- [155] When notice of the draft EA was given to the submitters on 3 November 2025, Table C1 had been amended to delete all references to the input of Aboriginal people in the reshaping of the landform, the revegetation of disturbed areas, and with development of conservation areas useful to Aboriginal people.
- [156] In the statutory party's Assessment Report (Variation or major amendment)⁶³, in response to the question whether the action or decision will limit or restrict the property rights, the simple answer is "no". In response to same question regarding cultural rights the answer is:
- The decision does not limit the human rights of Aboriginal and Torres Strait Islander peoples. These rights include practicing their beliefs, using their languages, and maintaining their relationships with the land, seas and waterways. The decision ensures protection for these cultural rights by minimising impacts on sensitive flora and fauna and limiting landform alterations to what is necessary for the activity while ensuring stable rehabilitation.
- [157] I do not find this statement helpful. It is internally inconsistent.
- [158] The applicants acknowledge that the Barada Barna Aboriginal Corporation (**BBAC**) have an interest in the land underlying the Coppabella Mine but say their rights to property are not engaged by the amendment application.⁶⁴ They say that to the extent there has been a deprivation of property, that occurred on the grant of the mining leases.
- [159] The applicants submit that a positive recommendation (to amend the EA as proposed) will "improve the BBAC's and other partial owners use and enjoyment of their property".⁶⁵ They conclude on this point saying: "A recommendation will approve a final landform that will, amongst other things, result in an increase of the areas of the land that has a PMLU compared to the landform that is currently approved".

⁶³ JCM-04 – Assessment Report dated 7 August 2025 [DET.0005].

⁶⁴ Applicants' Closing Submissions filed 31 July 2026, paragraph 223.

⁶⁵ Applicant's Closing Submissions filed 31 July 2026, paragraph 224.

- [160] Again, it was the intended input of Aboriginal people which was a factor advanced in support of the desired “type of native ecosystem PMLU” outcome that now features in the draft amended Table C1. How the removal of the obligation to obtain Aboriginal party input into PMLU outcomes and the conservation area objectives improves the BBAC’s use and enjoyment of their land is not explained.
- [161] I am not satisfied that the right to property has been engaged, and subject to my views below regarding procedural fairness, I am not satisfied the rights of First Nations people more broadly, as opposed to the rights of the BBAC and the Aboriginal people particularly connected with the ML area, are engaged.

Procedural fairness

- [162] The referral of the amendment application and objections to the Court for hearing properly invoked the Court’s jurisdiction in relation to the application to amend the environmental authority under the EP Act.⁶⁶
- [163] The Court’s function is to hear evidence about the application and objections and provide a non-binding recommendation to the relevant decision maker.
- [164] An objections decision must be a recommendation to the administering authority that where a draft EA was given, the application be approved on the basis of the draft EA, or on stated conditions that are different from the conditions in the draft EA, or that the application be refused.⁶⁷
- [165] Where an objections decision is made and a copy is given to the relevant minister a final decision can be made.⁶⁸ In making the final decision regard must be had to the Land Court’s objections decision.⁶⁹
- [166] A number of additional amendments were proposed by the statutory party after the amendment application was made. Those changes were agreed to or accepted by the applicants. They were not part of the amendment application. No submissions were made that the further amendments involved a significant change to the nature of the mine. They (the additional changes) do not encompass new activities or expand

⁶⁶ *Environmental Protection Act 1994* (Qld), s 185.

⁶⁷ *Environmental Protection Act 1994* (Qld), s 190.

⁶⁸ *Environmental Protection Act 1994* (Qld), s 194.

⁶⁹ *Environmental Protection Act 1994* (Qld), s 194B.

activities previously approved. In that sense they fall within the scope of the amendment application.

[167] On that basis, as noted by Kingham P in *Waratah Coal Pty Ltd v Youth Verdict Ltd & Ors (No 4) (Waratah No 4)*⁷⁰, the Court has subject matter jurisdiction but must observe procedural fairness in exercising its administrative function.

[168] The procedural fairness circumstances considered in *Waratah No 4* concerned a revised Mine plan. In that decision, the President said that the Court is not confined to the application documents when dealing with an environmental authority:

[50] For the environmental authority, the Court's function is to make an objections decision, taking into account specified matters. However, that does not limit the criteria or matters the Court may consider in making its decision.

[169] The President was referring to, what is now s 316R EP Act, which provides:

- (1) This section applies if –
 - (a) an entity is deciding, or is required to decide, an application under this chapter; and
 - (b) a provision of this chapter requires the entity, in making the decision, to consider stated criteria or matters.
- (2) The stated criteria or matters do not limit the criteria or matters the entity may consider in making the decision.

[170] As would be clear by now, the proposed amendment to the EA which I am concerned about is the deletion of the words in Table C1 regarding the input of Aboriginal people to the reshaped landform and the objective of developing a conservation area useful to Aboriginal people.

[171] While the deletion of the words from Table C1 does not result in fundamentally different application, it does raise a question of procedural fairness.

[172] It is not stated, and therefore, it is not clear if the BBAC were specifically told that after public notice of the amendment application was given, and after the timeframe for submissions had closed, Table C1 was amended to remove the obligation on the applicants to seek the input of Aboriginal people with the objective of developing a conservation area useful to Aboriginal people, or to be complementary to such a land use. At that point the opportunity to make a submission or lodge an objection had passed.

⁷⁰ *Waratah Coal Pty Ltd v Youth Verdict Ltd & Ors (No 4)* [2022] QLC 3 [45].

- [173] In the applicants' outline of submissions under the heading Statutory Public Interest Considerations, they refer to the evidence of Mr Neilsen⁷¹ who outlines the way the applicants communicate with the local community. In particular, he says that Peabody PCI has approved cultural heritage management plans (**CHMP**) for the Coppabella Mine MLs with the BBAC, the Aboriginal Cultural Heritage party for the area. Mr Neilsen says that he was informed that Peabody PCI and BBAC meet 3 to 4 times a year on a formal basis "to discuss a range of issues including the status of rehabilitation activities". He says that the BBAC was consulted in preparing the PRCP schedule and the final landform design. He said that the BBAC did not raise any concerns with the PRCP submissions or the final landform design at the most recent meeting.
- [174] The role identified in the current EA for "input" from Aboriginal people in establishing a landform with the "objective of developing a conservation area useful to Aboriginal people", comes under the heading "post-mine land description".
- [175] At that stage, the impacts on physical cultural heritage have mostly already occurred and the kinds of participation and engagement a CHMP might provide for (for example, cultural heritage "clearance" work and the "monitoring" of ground disturbance activities) have generally been completed.
- [176] However, the obligations to the Aboriginal people in Table C1 in the current EA are forward looking and not limited to considerations of cultural heritage, they are about landscape and conservation area outcomes, which, once again, featured in the applicants' and the statutory party's material in support of a PMLU outcome for the Class 4 post mine land suitability classification.
- [177] The discussions which Mr Neilsen refers to about the "status of rehabilitation activities" seem to be a lower order engagement than the provision of "input" with the stated objective/s as provided for in the current EA.
- [178] In his statement Mr Neilsen says: "As part of the PRCP process, Peabody PCI intends to continue consulting with these stakeholders both during operations and post mining while final rehabilitation is taking place."⁷²

⁷¹ Statement of Evidence of Brian Neilsen dated 27 April 2026, paragraphs 97-101 [PEA.2000].

⁷² Statement of Evidence of Brian Neilsen, dated 27 April 2026, paragraph 101 [PEA.2000].

- [179] At the hearing, the only comment about the “restructured” Table C1, apart from the post mine land classification, was that it had been “truncated down”⁷³ and it “seeks to modernise and clarify the rehabilitation outcomes that were already approved”⁷⁴.
- [180] In my view, the changes amount to more than a modernisation.
- [181] It may be that the Aboriginal people concerned with the area of the MLs were specifically consulted on these changes. If that is the case, then I am surprised it was not raised.
- [182] It may be that the input from Aboriginal people and the objective of developing a conservation area useful to Aboriginal people is to be included in the PRCP. But that is not stated. At its highest the evidence is that there is an intention referred to by Mr Neilsen to “continue consulting” both during operations and post mining while rehabilitation is taking place.⁷⁵
- [183] For these reasons, it is my recommendation that the wording in Table C1 in the current EA regarding the input from Aboriginal people with the objective of developing a conservation area useful to Aboriginal people, or to be complementary to such a land use, be reinstated into the amended EA proposed Table C1 for all PMLU area, unless the relevant text is transitioned into the PRCP.

Orders

1. I recommend that the administering authority responsible for the *Environmental Protection Act 1994* approve the application to amend EPML0056213 on the conditions stated in the Final Tracked amended environmental authority contained in Appendix B to these reasons, subject to the following exception.
2. I recommend that Table C1 in the Final Tracked amended environmental authority be amended to include the following words in the Post Mine Land Description for all Post mine land use areas designated PMLU: “with input from Aboriginal people, the objective being to develop a conservation area useful to Aboriginal people”.

⁷³ Transcript 1-8, line 6.

⁷⁴ Transcript 1-46; Transcript 1-47.

⁷⁵ Statement of Evidence of Brian Neilsen dated 27 April 2026, paragraph 101 [PEA.2000].

3. If, however, the text quoted in Order 2 is to be included in the PRCP, the amendment to Table C1 recommended in Order 2 is unnecessary.
4. I direct that the Registrar of the Land Court provide a copy of these recommendations and reasons to the administering authority under the *Environmental Protection Act 1994*.

Appendix A

EP Acts 191 Criteria	
<i>Section 191(a) – the application</i>	[COM.0005] – Amendment Application [COM.0006] – Supporting Information Report [COM.0007] – Appendix A: Landform Design Report [COM.0008] – Appendix B: PRCP Final Void Assessment [COM.0009] – Appendix C: Groundwater Final Void Assessment [COM.0010] – Appendix D: Surface Water Final Void Assessment Report [COM.0011] – Appendix E: Terrestrial Ecology Report [COM.0012] – Supporting Information Report [COM.0017] – Appendix E: Diversion Revegetation Plan [COM.0018] – Supporting Information Report [COM.0019] – Appendix F: Secondary Study Area Report [COM.0020] – Appendix G: Terrestrial Ecology Report [COM.0021] – Appendix H – Prescribed Environmental Matters Desktop Assessment [PEA.2000] – Affidavit of Brian Neilsen [PEA.2001] – Affidavit of Brian Neilsen [PEA.3000] – Statement of Evidence of Greg Roads [PEA.3001] – Statement of Evidence of Brad Dreis [PEA.3002] – Statement of Evidence of Jerome Fahrer
<i>Section 191(b) – the response to the information request</i>	[COM.0023] – Response to Information Request, pages 74 to 108. [COM.0024] – Aquatic Ecology Report
<i>Section 191(c) – the standard conditions for the relevant activity or authority</i>	[DET.0004] – Application Checklist (p 32.33 Human Rights Assessment), page 9.
<i>Section 191(d) – any draft environmental authority or draft PRCP schedule for the application</i>	[COM.0039] – Draft Environmental Authority.
<i>Section 191(e) – any objection notice for the application</i>	[COM.0041] – EPBC Referral Submission Notice. [COM.0033] – Submission by Environmental Advocacy in Central Queensland Inc (Objection Notice).
<i>Section 191(f) – any relevant regulatory requirement</i>	[DET.0001] – Affidavit of Juliana McCosker, pages 6 to 8. [DET.0005] – Assessment Report, pages 10 to 38.
<i>Section 191(h) – the status of any application under the Mineral Resources Act for each relevant mining tenure</i>	There are no relevant applications under the <i>Mineral Resources Act 1989</i> (Qld) for a mining tenure.
The Standard Criteria (s 191(g))	
<i>Standard criteria (a) – Precautionary Principle, Intergenerational Equity and the Conservation of Biological Diversity and Ecological integrity</i>	<u>Precautionary Principle</u> [PEA.3000] – Statement of Evidence of Greg Roads, [13], [39] to [46]. [COM.0023] – Response to Information Request, pages 110 to 161. [PEA.3001] – Statement of Evidence of Brad Dreis, page 28. [DET.0005] – Assessment Report, page 40. <u>Intergenerational Equity: Conservation of Biological Diversity and Ecological Integrity</u> [COM.0023] – Response to Information Request, pages 110 to 161. [PEA.3000] – Statement of Evidence of Greg Roads, [39] to [61].

	[DET.0005] – Assessment Report, page 40.
<i>Standard criteria (b) – Commonwealth or State government plans, standards, agreements or requirements</i>	[DET.0001] – Affidavit of Juliana McCosker, [24] to [26]. [DET.0005] – Assessment Report, page 41.
<i>Standard criteria (d) – Any relevant environmental impact study, assessment or report</i>	[COM.0006] – Supporting Information Report. [COM.0007] – Appendix A: Landform Design Report. [COM.0008] – Appendix B: PRCP Final Void Assessment. [PEA.0030] – Coppabella PRCP Landform Design Report. [PEA.2000] – Affidavit of Brian Neilsen, [54] to [71]. [COM.0009] – Appendix C: Groundwater Final Void Assessment. [COM.0010] – Appendix D: Surface Water Final Void Assessment. [COM.0011] – Appendix E: Terrestrial Ecology Report. [COM.0012] – Supporting Information Report. [COM.0017] – Appendix E: Diversion Revegetation Plan. [COM.0018] – Supporting Information Report. [COM.0019] – Appendix F: Secondary Study Area Report. [COM.0021] – Appendix H: Prescribed Environmental Matters Desktop Assessment. [COM.0024] – Aquatic Ecology Report.
<i>Standard criteria (e) – The character, resilience and values of the receiving environment</i>	[PEA.3000] – Statement of Evidence of Greg Roads, [12] to [37]. [PEA.3001] – Statement of Evidence of Brad Dreis, pages 7 to 23.
<i>Standard criteria (f) – All submissions made by the applicant and submitters</i>	[COM.0027] – Submission by Rodney Davis. [COM.0028] – Submission by Robert Holden. [COM.0029] – Submission by MEUQLD. [COM.0030] – Submission by Luke Reid. [COM.0031] – Submission by Lise Poole. [COM.0032] – Submission by Katrina Hawthorn. [COM.0033] – Submission by Environmental Advocacy in Central Queensland Inc (Objection Notice). [COM.0034] – Submission by David Drew. [COM.0035] – Submission by Andrew Macdonald. [COM.0036] – Submission by Abram Consulting International. [COM.0037] – Submission by Jason Hand. [DET.0001] – Affidavit of Juliana McCosker, pages 6 to 8. [DET.0005] – Assessment Report, pages 7 to 9.
<i>Standard criteria (g) – Best practice environmental management</i>	[DET.0005] – Assessment Report, page 41. [PEA.3001] – Statement of Evidence of Brad Dreis, page 29.
<i>Standard criteria (h) – Financial implications of the requirements for best practice environmental management</i>	[PEA.2000] – Affidavit of Brian Neilsen, pages 8 to 10. [DET.0005] – Assessment Report, page 42.
<i>Standard criteria (i) – Public interest</i>	[COM.0033] – Submission by Environmental Advocacy in Central Queensland Inc (Objection Notice), pages 3 to 5. [PEA.2000] – Affidavit of Brian Neilsen, [100] to [118]. [PEA.3002] – Statement of Evidence of Jerome Fahrner, pages 9 to 15.

<i>Standard criteria (j) – Any relevant site management plan</i>	[DET.0005] – Assessment Report, page 42.
<i>Standard criteria (k) – Any relevant integrated environmental management system</i>	[DET.0005] – Assessment Report, page 42.
<i>Standard criteria (l) – Any other matter prescribed by regulation</i>	[DET.0005] – Assessment Report, page 42.
Human Rights Act Consideration	
<i>Section 58(1)(a) – ‘Engagement’ whether the prospective decision is relevant to a human right (and which right) and ‘Limitation’ if so, is that right limited by the decision</i>	[DET.0001] – Affidavit of Juliana McCosker, [24] to [26]. [DET.0004] – Application Checklist (p 32.33 Human Rights Assessment), pages 16 to 17. [DET.0005] – Assessment Report, pages 43 to 44. <u>Property</u> [PEA.3000] – Statement of Evidence of Greg Roads, [98]. [PEA.2000] – Affidavit of Brian Neilsen, [100].
<i>Section 13 – ‘Justification’ whether such limits as do exist are reasonable and can be demonstrably justified</i>	[COM.0033] – Submission by Environmental Advocacy in Central Queensland Inc (Objection Notice), pages 3 to 5. [PEA.2000] – Affidavit of Brian Neilsen, [100] to [118]. [PEA.3002] – Statement of Evidence of Jerome Fahrner, pages 9 to 15.

Draft Permit

Environmental Protection Act 1994

Draft Environmental authority EPML00579213

This environmental authority is issued by the administering authority under Chapter 5 of the Environmental Protection Act 1994.

Environmental authority number: EPML00579213

Environmental authority takes effect on Draft

Environmental authority holder(s)

Name(s)	Registered address
PEABODY COPPABELLA PTY LTD	Level 5 Level 14 100 Melbourne Street 31 Duncan Street SOUTH BRISBANE FORTITUDE VALLEY QLD 4101 4006
CITIC AUSTRALIA COPPABELLA PTY LTD	Level 7, CITIC House 99 King Street MELBOURNE VIC 3000
WINCHESTER COAL OPERATIONS PTY LTD	Commonwealth Bank Building Level 25 240 Queen St BRISBANE CITY QLD 4000
KC RESOURCES PTY. LTD.	Suite 3B Level 33 52 Martin Place SYDNEY NSW 2000
NS COAL PTY LTD	Level 2, Navision House 10 Market Street BRISBANE CITY QLD 4000

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
Schedule 3 - 13 - Mining black coal	ML70161, ML70163, ML70164, ML70236 ML70237, PL1015
Schedule 3 - 08 - A petroleum or GHG storage activity, other than items 1 to 7, that includes an activity from Schedule 2 with an AES	ML70161, ML70163, ML70164, ML70236 ML70237, PL1015

Ancillary 31 - Mineral processing - 2(b) - Processing, in a year, the following quantities of mineral products, other than coke - more than 100,000t	ML70161, ML70163, ML70164, ML70236 ML70237, PL1015
Ancillary 33 - Crushing, milling, grinding or screening - Crushing, grinding, milling or screening more than 5000t of material in a year	ML70161, ML70163, ML70164, ML70236 ML70237, PL1015
Ancillary 63 - Sewage Treatment - 1(b-ii) - Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of more than 100 but not more than 1500EP - otherwise	ML70161, ML70163, ML70164, ML70236 ML70237, PL1015

Additional information for applicants

Environmentally relevant activities

The description of any environmentally relevant activity (ERA) for which an environmental authority (EA) is issued is a restatement of the ERA as defined by legislation at the time the EA is issued. Where there is any inconsistency between that description of an ERA and the conditions stated by an EA as to the scale, intensity or manner of carrying out an ERA, the conditions prevail to the extent of the inconsistency.

An EA authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the EA specifically authorises environmental harm.

A person carrying out an ERA must also be a registered suitable operator under the *Environmental Protection Act 1994* (EP Act).

Contaminated land

It is a requirement of the EP Act that an owner or occupier of contaminated land give written notice to the administering authority if they become aware of the following:

- the happening of an event involving a hazardous contaminant on the contaminated land (notice must be given within 24 hours); or
- a change in the condition of the contaminated land (notice must be given within 24 hours); or
- a notifiable activity (as defined in Schedule 3) having been carried out, or is being carried out, on the contaminated land (notice must be given within 20 business days)

that is causing, or is reasonably likely to cause, serious or material environmental harm.

For further information, including the form for giving written notice, refer to the Queensland Government website www.qld.gov.au, using the search term 'duty to notify'.

Take effect

Please note that, in accordance with section 200 of the EP Act, an EA has effect:

- a) if the authority is for a prescribed ERA and it states that it takes effect on the day nominated by the holder of the authority in a written notice given to the administering authority - on the nominated day; or
- b) if the authority states a day or an event for it to take effect-on the stated day or when the stated event happens; or
- c) otherwise on the day the authority is issued.

However, if the EA is authorising an activity that requires an additional authorisation (a relevant tenure for a resource activity, a development permit under the *Planning Act 2016* or an SDA Approval under the *State Development and Public Works Organisation Act 1971*), this EA will not take effect until the additional authorisation has taken effect.

If this EA takes effect when the additional authorisation takes effect, you must provide the administering authority written notice within 5 business days of receiving notification of the related additional authorisation taking effect.

The anniversary day of this environmental authority is the same day each year as the original take effect date unless you apply to change the anniversary day. The payment of the annual fee will be due each year on this day. An annual return will be due each year on 01 April.

If you have incorrectly claimed that an additional authorisation is not required, carrying out the ERA without the additional authorisation is not legal and could result in your prosecution for providing false or misleading information or operating without a valid environmental authority.

Juliana McCosker
Department of the Environment, Tourism, Science
and Innovation
Delegate of the administering authority
Environmental Protection Act 1994

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Issue date: 19 April 2024

Privacy statement

Pursuant to section 540 of the EP Act, the Department is required to maintain a register of certain documents and information authorised under the EP Act. A copy of this document will be kept on the public register. The register is available for inspection by members of the public who are able to take extracts, or copies of the documents from the register. Documents that are required to be kept on the register are published in their entirety, unless alteration is required by the EP Act. There is no general discretion allowing the Department to withhold documents or information required to be kept on the public register. For more information on the Department's public register, search 'public register' at www.qld.gov.au. For queries about privacy matters please email privacy@des.qld.gov.au or telephone 13 74 68.

Obligations under the *Environmental Protection Act 1994*

In addition to the requirements found in the conditions of this environmental authority, the holder must also meet their obligations under the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the Act:

- general environmental duty (section 319)
- duty to notify environmental harm (section 320-320G)
- offence of causing serious or material environmental harm (sections 437-439)
- offence of causing environmental nuisance (section 440)
- offence of depositing prescribed water contaminants in waters and related matters (section 440ZG)
- offence to place contaminant where environmental harm or nuisance may be caused (section 443)

Conditions of environmental authority

General	
Condition Number	Condition
<u>A1</u>	<u>This environmental authority authorise the harm referred to in the conditions. Where there is no condition or this environmental authority is silent on a matter, the lack of condition or silence does not authorise environmental harm.</u>
<u>A2</u>	<u>In carrying out the mining activity authorised by this environmental authority, the holder of this environmental authority must comply with the authorised disturbance area depicted in Figure 2 Authorised Disturbance Extent.</u>
<u>A3</u> ⁴	Maintenance of measures, plant and equipment The holder must: 1. Install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority; and 2. Maintain such measures, plant and equipment in a proper conditions; and 3. Operate such measures, plant and equipment in a proper manner.
<u>A4</u>	<u>Notification of emergencies incidents and exceptions</u> <u>The holder of this environmental authority must notify the administering authority by written notification within twenty four (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.</u>

A5	<u>Within ten (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:</u> <u>1. Results and interpretation of any samples taken and analysed</u> <u>2. Outcomes of actions taken at the time to prevent or minimise unlawful environmental harm</u> <u>3. Proposed actions to prevent a recurrence of the emergency or incident</u>
A62	Spillage of all flammable and combustible liquids must be contained within an on- site containment system and controlled in a manner that prevents environmental harm (other than trivial harm) and maintained in accordance with Section 5.9 of AS 1940 - Storage and Handling of Flammable and Combustible Liquids.
A73	Monitoring and recording Record, compile and keep for a minimum of five (5) years all monitoring results required by this environmental authority and make available for inspection all or any of these records upon request by the administering authority.
A84	Where monitoring is a requirement of this environmental authority, ensure that a competent person(s) conducts all monitoring.
A95	All complaints received must be recorded including details of complainant, reasons for the complaint, investigations undertaken, conclusions formed and actions taken. This information must be made available for inspection by the administering authority on request.
A106	Coal from South Walker Creek Mine (EPML00712313) is permitted to be received, stored temporarily and processed at the Coppabella Coal Handling and Processing Plant (CHPP).
A117	The activities outlined in Condition A106 may be conducted for a maximum duration of two (2) years from commencement of the activities.
A128	The environmental authority holder must notify the administering authority in writing on the day that activities authorised under Condition A106 commence.
A139	The maximum total volume of coal permitted to be received, stored temporarily and processed in accordance with Condition A106 is one (1) million tonnes.

A1410	Rejects and tailings generated in accordance with Condition A106 must be managed in compliance with the Co-disposal Area Operational Plan, developed in accordance with the Regulated Structure Schedule in this EA.
A1544	Definitions Words and phrases used throughout this environmental authority are defined in the definitions section at the end of this document. Where a definition for a term used in this environmental authority is sought and the term is not defined within this environmental authority, the definitions in the Environmental Protection Act 1994, its Regulations, and Environmental Protection Policy must be used.

Air	
Condition Number	Condition
B1	Dust nuisance Subject to conditions B2 and B3 the release of dust or particulate matter or both resulting from the mining activity must not cause an environmental nuisance, at any sensitive or commercial place.
B2	If monitoring indicates exceedance of the relevant limits in condition B3, then the environmental authority holder must: 1. address the complaint including the use of appropriate dispute resolution if required; and 2. immediately implement dust abatement measures so that emissions of dust from the activity do not result in further environmental nuisance.

B23	If the environmental authority holder can provide evidence through monitoring that the following limits are not being exceeded, then the holder is not in breach of B1: 1. dust deposition of 120 milligrams per square metre per day, averaged over one month, when monitored in accordance with AS 3580.10.1 Methods for sampling and analysis of ambient air - Determination of particulates - Deposited matter - Gravimetric method of 1991 (or more recent editions), or 2. a concentration of particulate matter with an aerodynamic diameter of less than 10 micrometre (µm) (PM10) suspended in the atmosphere of 50 micrograms per cubic metre over a 24 hour averaging time, at a sensitive or commercial place downwind of the operational land, when monitored in accordance with: a) particulate matter - Determination of suspended particulate PM10 high-volume sampler with size-selective inlet - Gravimetric method, when monitored in accordance with AS 3580.9.6 Methods for sampling and analysis of ambient air - Determination of suspended particulate matter – PM (sub) 10 high volume sampler with size-selective inlet - Gravimetric method of 1990 (or more recent editions), and b) b-any alternative method of sampling PM10, which may be permitted by the Air Quality Sampling Manual as published from time to time by the administering authority.
B34	If monitoring indicates exceedance of the relevant limits in condition B3, then the environmental authority holder must: 1. address the complaint including the use of appropriate dispute resolution if required; and 2. immediately implement dust abatement measures so that emissions of dust from the activity do not result in further environmental nuisance.
B4	<u>Monitoring Locations</u> <u>By 3 November 2026 the environmental authority holder must submit a report detailing suitable monitoring methods and locations for dust and particulate matter monitoring at Coppabella Mine, to replace the TBC values in Table B1 – Monitoring locations, parameters and methods.</u>

<u>B5</u>	<u>Continuous Monitoring</u> Following submission of the report required by B4, by 3 February 2027 the environmental authority holder must implement: 1. <u>Continuous monitoring of dust and particulate matters in accordance with and at the locations specified in Table B1; and</u> 2. <u>Monitoring of meteorological conditions in accordance with and at the locations specified in Table B1.</u>
<u>B6</u>	<u>Submission of monitoring data</u> All monitoring data collected at the locations specified in Table B1 – Monitoring locations, parameters, and methods or as otherwise agreed with the administering authority, must be submitted to administering authority upon request.

Table B1 – Monitoring locations, parameters and methods

<u>Monitoring Point</u>	<u>Latitude (decimal degree, GDA2020)</u>	<u>Longitude (decimal degree, GDA2020)</u>	<u>Monitoring Parameter</u>	<u>Monitoring Frequency</u>	<u>Monitoring Method</u>
<u>TBC</u>	<u>TBC</u>	<u>TBC</u>	<u>TBC</u>	<u>TBC</u>	<u>TBC</u>
<u>TBC</u>	<u>TBC</u>	<u>TBC</u>	<u>TBC</u>	<u>TBC</u>	<u>TBC</u>

Land	
Condition Number	Condition
C1	Rehabilitation landform criteria All areas significantly disturbed by mining activities must be progressively rehabilitated to the final land description as defined in Table C1 - Final land use and rehabilitation approval schedule .
C2	Progressive rehabilitation must commence when areas become available within the operational land.
C3	Areas which are to be progressively rehabilitated to native ecosystem must comply with the following outcomes: 1. achievement of a self-sustaining native ecosystem with a species composition and distribution consisting of at least three Acacia species, one Eucalypt species and either a Melaleuca or Grevillea species as an upper story and three understorey species. An exotic groundcover initially established to control erosion will be replaced gradually in a plant succession with either native or naturalised species. Projective vegetative cover will be seventy percent (70%). 2. all areas significantly disturbed by mining activities must be rehabilitated to the landform design criteria defined in Table C2 - Landform design; and 3. landforms are stable and comply with the design criteria defined in Table C2 - Landform design.
C4	Residual Voids The Residual voids must comply with the following outcomes: 1. the residual voids must not cause any serious environmental harm to land, surface waters or any recognised ground water aquifer, other than the environmental harm constituted by the existence of the residual void itself, and subject to any other condition within this environmental authority; and 2. the residual voids must comply with Table C3 - Residual void design.

C5	Within three months after EA approval, By 30 June 2026 the EA holder must submit to the administering authority an investigation into the optimisation of the post mining land use of the residual void. The investigation must include: <u>1. An assessment of options allowing the void low wall to sustain a post mining land use supported by geotechnical, surface water and groundwater analyses.</u> <u>2. Recommendations for the rehabilitation outcome for the residual void low wall area must be updated.</u>
C5C6	Manage topsoil in accordance with site specific procedures and management plans.
C76	All infrastructure constructed by or for the environmental authority holder during the mining activities including water storage structures, must be removed from the site prior to mining lease surrender, except where agreed in writing by the post-mining land owner/holder and the administering authority.
C7	Procedures for managing emergency spills and uncontrolled discharge events must be detailed in the Plan of Operations.
C7C8	The environmental authority holder is authorised to carry out exploration activities in or within five hundred (500) metres of Endangered Regional Ecosystems located within ML70164, ML70236 & ML70237.

Table C1 - Final land use and rehabilitation approval schedule

Disturbance type	Projective surface area (ha)	Post-mine land description	Post mine land suitability classification
Elevated landform (overburden) -upper slopes	700	Establish a landform and revegetate with native Species, with input from Aboriginal people, the objective being to develop a conservation area useful to Aboriginal people.	Class 4
-lower slopes	840	Establish pasture species to control erosion initially and thereafter develop a self-sustaining native ecosystem.	Class 5
-access tracks and haul roads	250	Establish a landform and revegetate with native species with input from Aboriginal people, the objective being to develop a conservation area useful to Aboriginal people.	Class 4
Elevated landform (co-disposal)- upper surface	150	Establish a landform and revegetate with native species with input from Aboriginal people, the objective being to develop a conservation area useful to Aboriginal people.	Class 4
-slopes	70	Establish pasture species to control erosion initially and thereafter develop a self-sustaining native ecosystem.	Class 5
Residual Voids	80	Water filled voids complementary to the post-mine land use of the surround land.	Class 5
Rail Loop	30	Establish a landform and revegetate with native species with input from Aboriginal people, the objective being to develop a conservation area useful to Aboriginal people.	Class 4
CHPP General Area	150	Establish a landform and revegetate with native species with input from Aboriginal people, the objective being to develop a conservation area useful to Aboriginal people.	Class 4
Water Management Structures	120	Establish a landform and revegetate with native species with input from Aboriginal people, the objective being to develop a conservation area useful to Aboriginal people.	Class 4
Undisturbed	1753		
Total	4143		

Disturbance Type	Surface Area (ha)		Post Mine Land Description	Post Mine Land Use
Waste Rock Dump and Associated Humbug Remnant Channel	2,019	2,104	Establish a reshaped landform and revegetate with native species	PMLU

	<u>85</u>		<u>Steep upper slopes associated with Residual Void</u>	<u>NUMA</u>
<u>Access Tracks and Haul Roads</u>	<u>52</u>		<u>Establish a reshaped landform and revegetate with native species</u>	<u>PMLU</u>
<u>Co-Disposal Emplacement</u>	<u>220</u>		<u>Native ecosystem exclusive of deep rooted tree species</u>	<u>PMLU</u>
<u>Residual Void</u>	<u>44</u>	<u>460</u>	<u>Establish a reshaped landform and revegetate with native species</u>	<u>PMLU</u>
	<u>416</u>		<u>Single water filled void located outside of floodplain. Maximum void pit lake surface area to be 80ha. Remainder of area to be void walls.</u>	<u>NUMA</u>
<u>Rail Loop</u>	<u>28</u>		<u>Establish a reshaped landform and revegetate with native species</u>	<u>PMLU</u>
<u>Mine Infrastructure (CHPP, Coal Stockpiles, Offices, Workshop, etc)</u>	<u>70</u>		<u>Establish a reshaped landform and revegetate with native species</u>	<u>PMLU</u>
<u>Water Management Structures</u>	<u>79</u>		<u>Establish a reshaped landform and revegetate with native species</u>	<u>PMLU</u>
<u>Western Diversion</u>	<u>87</u>		<u>Establish a reshaped landform and revegetate with native species</u>	<u>PMLU</u>
<u>Total Disturbed</u>	<u>3,100</u>			
<u>Total Undisturbed</u>	<u>634</u>			
<u>Total Area</u>	<u>3,734</u>			

Table C2 - Landform design

Slope range (%)	Maximum Vertical Height (metres)	Maximum distance between erosion control structures e.g. benches, contour banks or graded banks (metres)
1V:7H (approx. 14%)	70 (Johnston Pit North Dump, South Pit Dump and East Pit South Dump only)	75
	50 – all other areas	

Table C3 - Residual void design

Void wall - competent rock slope highwall (%)	Void wall – low wall	Void maximum Void lake surface area (ha)
10V:1H	Between 1V:3H – 1V:4H	80 20
10V:1H	Between 1V:3H – 1V:4H	30
10V:1H	Between 1V:3H – 1V:4H	20
10V:1H	Between 1V:3H – 1V:4H	40

C9	When carrying out exploration activities in or within five hundred (500) metres of any Endangered Regional Ecosystems, the holder of the environmental authority must do so in accordance with conditions C10 to C14 .
C10	Drilling or Seismic Grid - spacing of gridlines or 2D seismic lines is not less than five hundred (500) metres apart; and - spacings may be reduced to two hundred and fifty (250) metres at no more than fifty (50) specified points; and 3D seismic lines constructed within Endangered Regional Ecosystems must not exceed a total disturbance area of twenty (20) hectares.
C11	Drill Sites - operational area is to be no greater than five hundred (500) square metres; and - sump size is to be no greater than ten (10) square metres; and - topsoil stripping must be limited to sump area; and - clearing of mature trees must be avoided as far as practicable.
C12	Tracks - spacings between tracks must not be less than two hundred and fifty (250) metres; and - existing access and fence line tracks must be used where possible and any new tracks constructed must link natural clearings where possible; and - track construction involving blade clearing or established ground cover vegetation and/or clearing of mature trees is prevented or minimised; and - line of site clearing must be avoided; and - construction of new crossings over watercourses must be avoided and is only permitted when no reasonable alternative is available; and - all tracks must be constructed and maintained with adequate drainage to avoid accelerated erosion.
C13	Other Land Disturbances - activities must not include costeaning or bulk sampling; and - all equipment such as earthmoving and drilling equipment must be used in a manner which minimises unnecessary disturbance of topsoil and ground cover vegetation; and - camp sites must not be established.

C14	Disturbance due to exploration activities must be rehabilitated in accordance with provisions detailed in the Code of Environmental Compliance for Exploration and Mineral Development Projects.
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Acoustic	
Condition Number	Condition
D1	Noise Subject to condition D2, noise from the mining activity must not cause an environmental nuisance, at any sensitive place.
D2	When requested by the administering authority, noise monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive place, and the results must be notified within fourteen (14) days to the administering authority following completion of monitoring.
D3	If the environmental authority holder can provide evidence through monitoring that the limits defined in Table D1 – Noise Limits and Table D2 - Airblast Overpressure Level – Sensitive Place inclusive are not being exceeded, then the holder is not in breach of condition D1. Monitoring must include: 1. L A, max adj, T; 2. The level and frequency of occurrence of impulsive or tonal noise; 3. Atmospheric conditions including wind speed and direction; and 4. Location, date and time of recording.
D4	If monitoring indicates exceedance of the limits in Table D1 – Noise Limits, then the environmental authority holder must: 1. Address the complaint including the use of appropriate dispute resolution if required; or 2. Immediately implement noise abatement measures so that emissions of noise from the activity do not result in further environmental nuisance.

Table D1 - Noise Limits

Noise level dB(A) measured as	Monday to Saturday			Sundays and public holidays		
	7am - 6pm	6pm - 10pm	10pm - 7am	9am - 6pm	6pm - 10pm	10pm - 9am
	Noise measured at a 'Noise sensitive place'					
LA10, adj, 10 mins	b/g+5	b/g+5	b/g+0	b/g+5	b/g+5	b/g+0
LA1, adj, 10 mins	b/g+10	b/g+10	b/g+5	b/g+10	b/g+10	b/g+5

Table D2 - Airblast Overpressure Level - Sensitive Place

Noise parameter	Monday to Saturday	Sundays and public holidays
	6 am – 7 pm	9am – 7pm
	Noise measured at a 'Noise sensitive place'	
Air blast overpressure level (dB linear peak)	115dB (80 th percentile)	115dB (80 th percentile)
Air blast overpressure level (dB linear peak)	120dB (maximum)	120dB (maximum)

D6	Vibration Subject to condition D7 , vibration from the mining activity must not cause an environmental nuisance, at any sensitive place.
D7	When requested by the administering authority, vibration monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on any mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive place, and the results must be notified within fourteen (14) days to the administering authority following completion of monitoring.
D8	If the environmental authority holder can provide evidence through monitoring that the limits defined in Table D3 – Vibration limits are not being exceeded, then the holder is not in breach of condition D6 . Monitoring must include: 1. Location of the blasts/s within the mining area (including which bench level); and 2. Atmospheric conditions including temperature, relative humidity and wind speed and direction; and 3. Location, date and time of recording.

D9	If monitoring indicates exceedance of the relevant limits in Table D3 – Vibration limits, then the environmental authority holder must: 1. Address the complaint including the use of appropriate dispute resolution if required; or 2. Immediately implement vibration abatement measures so that vibration from the activity does not result in further environmental nuisance
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Table D3 - Vibration limits

Vibration parameter	Vibration measured at a sensitive place	
	Monday to Saturday 6 am – 7 pm	Sundays and public holidays 9 am – 7 pm
Houses and low rise residential buildings and commercial buildings not included below	10 mm/s peak particle velocity	10 mm/s peak particle velocity

Waste	
Condition Number	Condition Number
E1	Tyres Tyres stored awaiting disposal or transport for take-back and recycling, or waste-to-energy options, should be stockpiled: 1. in volumes less than 5m in height and 200 square metres in area; and 2. in a manner that: a) allows onsite firefighting equipment to be used safely and reaching all extents of the tyre stockpile; and b) prevents water retention and minimises mosquito breeding events.
E2	Disposing of scrap tyres resulting from the mining activities in spoil emplacements is acceptable, provided tyres are placed as deep in the spoil as reasonably practicable.
E3	Scrap tyres resulting from the mining activities disposed within the operations land must not impede saturate aquifers or compromise the stability of the consolidated landform.

E4	Waste Management Program A waste management program, including details of regulated waste, must be developed and implemented. The waste management program must at a minimum include the following: 1. types and amounts of waste generated; and 2. description of how the types of waste generated will be dealt with under the waste management hierarchy; and 3. procedures for identifying and implementing opportunities to minimise the amount of waste generated and improve practices employed; and 4. procedures for dealing with accidents, spills and incidents that may impact on waste management; and 5. location of disposal of wastes; and 6. staff training on matters relevant to waste management; and 7. mechanisms and dates for review of the waste management program.
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Regulated Structures	
Condition Number	Condition
F1	Assessment of consequence category The consequence category of any structure must be assessed by a suitably qualified and experienced person in accordance with the Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933) at the following times: 1. prior to the design and construction of the structure, if it is not an existing structure; or 2. prior to any change in its purpose or the nature of its stored contents.
F2	A consequence assessment report and certification must be prepared for each structure assessed and the report may include a consequence assessment for more than one structure.
F3	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 Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933).
F4	Design and construction of a regulated structure Conditions F5 to F9 inclusive do not apply to existing structures.

F5	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 (ESR/2016/1933).
F6	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 design plan and the associated operating procedures in compliance with the relevant condition of this authority.
F7	Certification must be provided by the suitably qualified and experienced person who oversees the preparation of the design plan in the form set out in the Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933), and must be recorded in the Regulated Dams/Levees register.
F8	Regulated structures must: 1. be designed and constructed in accordance with and conform to the requirements of the Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933); 2. Be designed and constructed with due consideration given to ensuring that the design integrity would not be compromised on account of; a) floodwaters from entering the regulated dam from any watercourse or drainage line; and b) wall failure due to erosion by floodwaters arising from any watercourse or drainage line 3. have the floor and sides of the dam designed and constructed to prevent or minimize 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.
F9	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: 1. the 'as constructed' drawings and specifications meet the original intent of the design plan for that regulated structure 2. construction of the regulated structure is in accordance with the design plan.

F10	Operation of a regulated structure Operation of a regulated structure, except for an existing structure, is prohibited unless the holder has submitted to the administering authority: 1. one paper copy and one electronic copy of the design plan and certification of the 'design plan' in accordance with F6 and 2. a set of 'as constructed' drawings and specifications; and 3. certification of those 'as constructed drawings and specifications' in accordance with F9 and 4. the requirements of this authority relating to the construction of the regulated structure have been met; <u>and</u> 5. the holder has entered the details required under this authority, into a Register of Regulate Dams; and 6. there is a current operational plan for the regulated structures.
F11	For existing structures that are regulated structures: 1. where the existing structure that is a regulated structure is to be managed as part of an integrated containment system for the purpose of sharing the 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 2. there must be a current operational plan for the existing structures.
F12	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.
F13	Mandatory reporting level Conditions F14 to F17 inclusive only apply to Regulated Structures which have not been certified as low consequence category for 'failure to contain – overtopping'.
F14	The Mandatory Reporting Level (the MRL) must be marked on a regulated dam in such a way that during routine inspections of that dam, it is clearly observable.

F15	The holder must, as soon as practical and within forty-eight (48) hours of becoming aware, notify the administering authority when the level of the contents of a regulated dam reaches the MRL.
F16	The holder must, immediately on becoming aware that the MRL has been reached, act to prevent the occurrence of any unauthorised discharge from the regulated dam.
F17	The holder must record any changes to the MRL in the Register of Regulated Structures.
F18	Design storage allowance 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.
F19	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 Design Storage Allowance (DSA) volume for the dam (or network of linked containment systems).
F20	The holder must, as soon as possible and within forty-eight (48) hours of becoming aware that the 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, notify the administering authority.
F21	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.
F22	Annual inspection report Each regulated structure must be inspected each calendar year by a suitably qualified and experienced person.
F23	At each annual 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.

F24	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 (ESR/2016/1933).
F25	The holder must: 1. within 20 business days of receipt of the annual inspection report, provide to the administering authority: a) the recommendations section of the annual inspection report; and b) if applicable, any actions being taken in response to those recommendations; and 2. 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 to the administering authority within 10 business days of receipt of the request.
F26	Transfer arrangements The holder must provide a copy of any reports, documentation and certifications prepared under this authority, including but not limited to any Register of Regulated Structures, consequence assessment, design plan and other supporting documentation, to a new holder on transfer of this authority.
F27	Decommissioning and rehabilitation Dams must not be abandoned but be either: 1. decommissioned and rehabilitated to achieve compliance with condition F28; or 2. be left in-situ for a beneficial use(s) provided that: a) it no longer contains contaminants that will migrate into the environment; and b) it contains water of a quality that is demonstrated to be suitable for its intended beneficial use(s); and c) the administering authority, the holder of the environmental authority and the landholder agree in writing that the dam will be used by the landholder following the cessation of the environmentally relevant activity(ies).

F28	After decommissioning, all significantly disturbed land caused by the carrying out of the environmentally relevant activity(ies) must be rehabilitated to meet the following final acceptance criteria: 1. the landform is safe for humans and fauna; 2. the landform is stable with no subsidence or erosion gullies for at least three (3) years; 3. any contaminated land (e.g. contaminated soils) is remediated and rehabilitated; 4. not allowing for acid mine drainage; or 5. there is no ongoing contamination to waters (including groundwater); 6. rehabilitation is undertaken in a manner such that any actual or potential acid sulfate soils on the area of significant disturbance are treated to prevent or minimize environmental harm in accordance with the Queensland Acid Sulfate Soil Technical Manual (Soil Management Guidelines v4.0)(2001); 7. all significantly disturbed land is reinstated to the pre-disturbed soil suitability class; 8. for land that is not being cultivated by the landholder: a) groundcover, that is not a declared pest species is established and self-sustaining b) vegetation of similar species richness and species diversity to pre-selected analogue sites is established and self-sustaining, and c) the maintenance requirements for rehabilitated land is no greater than that required for the land prior to its disturbance caused by carrying out the petroleum activities. 9. For land that is to be cultivated by the landholder, cover crop is revegetated, unless the landholder will be preparing the site for cropping within 3 months of petroleum activities being completed.
F29	Register of Regulated Dams A Register of Regulated Dams must be established and maintained by the holder for each regulated dam.
F30	The holder must provisionally enter the required information in the Register of Regulated Dams when a design plan for a regulated dam is submitted to the administering authority.

F31	The holder must make a final entry of the required information in the Register of Regulated Dams once compliance with condition F10 and F11 has been achieved.
F32	The holder must ensure that the information contained in the Register of Regulated Dams is current and complete on any given day.
F33	All entries in the Register of Regulated Dams must be approved by the chief executive officer for the holder of this authority, or their delegate, as being accurate and correct.
F34	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 Dams, in the electronic format required by the administering authority.
F35	Transitional arrangements All existing structures that have not been assessed in accordance with either the Manual or the former Manual for Assessing Hazard Categories and Hydraulic Performance of Dams must be assessed and certified in accordance with the Manual within 6 months of amendment of the authority adopting this schedule.
F36	All existing structures must subsequently comply with the timetable for any further assessments in accordance with the Manual specified in Table F1-Transitional requirements for existing structures , depending on the consequence category for each existing structure assessed in the most recent previous certification for that structure.
F37	Table F1-Transitional hydraulic performance requirements for existing structures ceases to apply for a structure once any of the following events has occurred: 1. it has been brought into compliance with the hydraulic performance criteria applicable to the structure under the Manual; or 2. it has been decommissioned; or 3. it has been certified as no longer being assessed as a regulated structure.
F38	Certification of the transitional assessment required by Conditions F35 and F36 (as applicable) must be provided to the administering authority within 6 months of amendment of the authority adopting this schedule.

Table F1 – Transitional hydraulic performance requirements for existing structures

Transition period required for existing structures to achieve the requirements of the Manual for Assessing Consequence Categories and Hydraulic Performance of Dams			
Compliance with criteria	High	Significant	Low
Greater than 90% and a history of good compliance performance in last 5 years	No transition required	No transition required	No transitional conditions apply. Review consequence assessment every 7 years.
Greater than 70% to less than/equal to 90%	Within 7 years, unless otherwise agreed with the administering authority, based on no history of unauthorised releases.	Within 10 years, unless otherwise agreed with the administering authority, based on no history of unauthorised releases.	No transitional conditions apply. Review consequence assessment every 7 years.
Greater than 50% to less than/equal to 70%	Within 5 years unless otherwise agreed with the administering authority, based on no history of unauthorised releases.	Within 7 years unless otherwise agreed with the administering authority, based on no history of unauthorised releases.	Review consequence assessment every 7 years.
Less than/equal to 50%	Within 5 years or as per compliance requirements (e.g. TEP timing)	Within 5 years or as per compliance requirements (e.g. TEP timing)	Review consequence assessment every 5 years.

Water	
Condition Number	Condition Number
G1	Contaminant Release Contaminants that will or have the potential to cause environmental harm must not be released directly or indirectly to any waters except as permitted under the conditions of this environmental authority.
G2	The release of contaminants to waters must only occur from the release points specified in Table G1 – Contaminant Release Points, Sources and Receiving Waters and depicted in Figure 1 attached to this environmental authority.
G3	The release of contaminants to waters must not exceed the release limits stated in Table G2 – Contaminant Release Limits when measured at the monitoring points specified in Table G1 – Contaminant Release Points, Sources and Receiving Waters for each quality characteristic.
G4	The release of contaminants to waters from the release points must be monitored at the locations specified in Table G1 - Contaminant Release Points, Sources and Receiving Waters for each quality characteristic and at the frequency specified in Table G2 - Contaminant Release Limits and Table G3 – Release Contaminant Trigger Investigation Levels .

Table G1 - Contaminant Release Points, Sources and Receiving Waters

Release Point (RP)	Northing (GDA94)	Easting (GDA94)	Contaminant Source and Location	Monitoring Point	Receiving waters description
RP 1	7581878	647146	Worked Water Dam Spillway or Pipe	Return Water Dam Gantry	30 Mile Creek
RP 2	7581766	646388	Return Water Dam Spillway or Pipe	Return Water Dam Gantry	30 Mile Creek

Table G2 - Contaminant Release Limits

Quality Characteristic	Interim Release Limits for all mines	Future Release Limits from 31 DEC 2011	Monitoring frequency	Comments
Electrical conductivity (µS/cm)	2500	Future limit to be determined to achieve aquatic ecosystem protection (no drinking water value): An end-of-pipe limit to achieve in the range 0 to 1000 EC in the receiving waters – for mines in the upper catchments must have natural flow i.e. the 20th percentile flow trigger.	Daily during release (first sample to be taken within 2 hours of commencement of release)	
pH (pH Unit)	6.5 (minimum) 9.0 (maximum)	6.5 (minimum) 9.0 (maximum)	Daily during release (first sample to be taken within 2 hours of commencement of release)	
Turbidity (NTU)	NA 4000	Limit to be determined based on receiving water reference data and achievable best practice sedimentation control and treatment	Daily during release (first sample to be taken within 2 hours of commencement of release)	Turbidity is required to assess ecosystems impacts and can provide instantaneous results
Suspended Solids (mg/L)	5000	Limit to be determined based on receiving water reference data and achievable best practice sedimentation control and treatment	Daily during release (first sample to be taken within 2 hours of commencement of release)	Suspended solids are required to measure the performance of sediment and erosion control measures.

Sulphate (SO ₄ ²⁻) (mg/L)	1000	4000	Daily during release (first sample to be taken within 2 hours of commencement of release)*	Drinking water environmental values from NHMRC 2006 guidelines OR ANZECC and ARMCANZ 2000 stock water quality guidelines.
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Note: NA – not available, * local trigger values need to be developed; These future limits will apply from a yet to be negotiated date using alternative numbers that will be derived from the information gathered by any combination of the following: (1) the results of near-field monitoring, (2) any studies or investigations carried out in accordance with recommendations 2 and 3 of the Cumulative Impact Study on water quality in the Fitzroy River Basin, (3) any review of the QLD Water Quality Guidelines, (4) other relevant information. This information should be available by the end of 2011 if not before and when it becomes available limits will be determined for each mine site based on the environmental values to be protected and in accordance with criteria of Table G2.

Table G3 - Release Contaminant Trigger Investigation Levels

Quality Characteristic	Trigger Levels (µg/L)	Comment on Trigger Level	Monitoring Frequency
Aluminium	100	For aquatic ecosystem protection, based on LOR for ICPMS	Commencement of release and thereafter
Arsenic	13	For aquatic ecosystem protection, based on SMD guideline	
Cadmium	0.2	For aquatic ecosystem protection, based on SMD guideline	
Chromium	1	For aquatic ecosystem protection, based on SMD guideline	
Copper	2	For aquatic ecosystem protection, based on LOR for ICPMS	
Iron	300	For aquatic ecosystem protection, based on low reliability guideline	
Lead	10	For aquatic ecosystem protection, based on LOR for ICPMS	
Mercury (inorganic)	0.2	For aquatic ecosystem protection, based on LOR for CV FIMS	
Nickel	11	For aquatic ecosystem protection, based on SMD guideline	
Zinc	8	For aquatic ecosystem protection, based on SMD guideline	
Boron	370	For aquatic ecosystem protection, based on SMD guideline	
Cobalt	90	For aquatic ecosystem protection, based on low reliability guideline	
Manganese	1900	For aquatic ecosystem protection, based on SMD guideline	
Molybdenum	34	For aquatic ecosystem protection, based on low reliability guideline	
Selenium	10	For aquatic ecosystem protection, based on LOR for ICPMS	
Silver	1	For aquatic ecosystem protection, based on LOR for ICPMS	
Uranium	1	For aquatic ecosystem protection, based on LOR for ICPMS	
Vanadium	10	For aquatic ecosystem protection, based on LOR for ICPMS	
Ammonia	1000	For aquatic ecosystem protection, based on SMD guideline	

Nitrate	1100	<i>For aquatic ecosystem protection, based on ambient Qld WQ Guidelines (2006) for TN</i>	weekly during the release.
Petroleum hydrocarbons (C6-C9)	20		
Petroleum hydrocarbons (C10-C36)	100		
Fluoride (total)	2000	<i>Protection of livestock and short term irrigation guideline</i>	

Notes:

1. All metals and metalloids must be measured as total (unfiltered) and dissolved (filtered). Trigger levels for metal/metalloids apply if dissolved results exceed trigger.
2. The list of quality characteristics required to be monitored as per Table G3 will be reviewed once the results of the monitoring data is gathered for the interim period until 31 December 2011 or an earlier date if the data is, or becomes, available and if it is determined that there is no need to monitor for certain individual quality characteristics these can be removed from Table G3.
3. SMD – slightly moderately disturbed level of protection, guideline refers ANZECC and ARMCANZ (2000).
4. LOR – typical reporting for method stated. ICPMS/CV FIMS – analytical method required to achieve LOR.

G5	If quality characteristics of the release exceed any of the trigger levels specified in Table G3 - Release Contaminant Trigger Investigation Levels during a release event, the environmental authority holder must compare the downstream results in the receiving waters to the trigger values specified in Table G3 - Release Contaminant Trigger Investigation Levels and: 1. where the trigger values are not exceeded, then no action is to be taken; or 2. where the downstream results exceed the trigger values specified in Table G3 for any quality characteristic, compare the results of the downstream site to the data from background monitoring sites and; a) if the result is less than the background monitoring site data, then no action is to be taken; or b) if the result is greater than the background monitoring site data, complete an investigation in accordance with the ANZECC and ARMCANZ 2000 methodology, into the potential for environmental harm and provide a written report to the administering authority in the next annual return, outlining: i. details of the investigations carried out; and ii. actions taken to prevent environmental harm. Note: Where an exceedance of a trigger level has occurred and is being investigated, in accordance with G5 (2)(b) of this condition, no further reporting is required for subsequent trigger events for that quality characteristic.
G6	If an exceedance in accordance with Condition G5 (2)(b) is identified, the holder of the authority must notify the administering authority within fourteen (14) days of receiving the result.

G7	Contaminant Release Events The holder must install, operate and maintain a stream flow gauging station to determine and record stream flows at the locations upstream of each Release Point as specified in Table G4 – Contaminant Release during Flow Events for any receiving water into which a release occurs.
G8	Notwithstanding any other condition of this environmental authority, the release of contaminants to waters must only take place during periods of natural flow events specified as minimum flow in Table G4 – Contaminant Release during Flow Events for the contaminant release point(s) specified in Table G1 – Contaminant Release Points, Sources and Receiving Waters.

Table G4 - Contaminant Release during Flow Events

Receiving water description	Release Point	Gauging station description	Northing (GDA94)	Easting (GDA94)	Minimum Flow in Receiving Water Required for a Release Event	Flow recording Frequency
Harrybrandt Creek	RP1 RP2	UP GS MP 1	7579495	648857	Greater than or equal to 0.25m ³ /sec	Continuous (minimum daily)

G9	Contaminant release flow rate must not exceed twenty percent (20%) of receiving water flow rate.
G10	The daily quantity of contaminants released from each release point must be measured and recorded at the monitoring points in Table G1 – Contaminant Release Points, Sources and Receiving Waters .
G11	Releases to waters must be undertaken so as not to cause erosion of the bed and banks of the receiving waters, or cause a material build-up of sediment in such waters.

G12	Notification of Release Event The authority holder must notify the administering authority as soon as practicable (within no later than 6 hours of having commenced controlled release of mine affected water to the receiving environment from an authorised discharge point, and no later than 12 hours after any uncontrolled release from an authorised discharge point). Notification must include the submission of written advice to the administering authority of the following information: 1. release commencement date/time; 2. expected release cessation date/time; 3. release point/s; 4. release volume (estimated); 5. receiving water/s including the natural flow rate; and 6. any details (including available data) regarding likely impacts on the receiving water(s). Note: Notification to the administering authority must be addressed to the Manager and Project Manager of the local Administering Authority via email or facsimile.
G13	The authority holder must notify the administering authority as soon as practicable, (nominally within twenty-four (24) hours after cessation of a release) of the cessation of a release notified under condition G12 and within twenty-eight (28) days provide the following information in writing: 1. release cessation date/time; 2. natural flow volume in receiving water; 3. volume of water released; 4. details regarding the compliance of the release with the conditions of Department Interest: Water of this environmental authority (i.e. contamination limits, natural flow, discharge volume); 5. all in-situ water quality monitoring results; and 6. any other matters pertinent to the water release event.
G14	Notification of Release Event Exceedance If the release limits defined in Table G2 - Contaminant Release Limits are exceeded, the holder of the environmental authority must notify the administering authority within twenty-four (24) hours of receiving the results.

G15	The authority holder must, within twenty-eight (28) days of a release that exceeds the conditions of this authority, provide a report to the administering authority detailing: 1. the reason for the release; 2. the location of the release; 3. all water quality monitoring results; 4. any general observations; 5. all calculations; and 6. any other matters pertinent to the water release event.
G16	Monitoring of Water Storage Quality Water storages stated in Table G5 – Water Storage Monitoring which are associated with the release points must be monitored for the water quality characteristics specified in Table G6 - Onsite Water Storage Contaminant Limits at the monitoring locations and at the monitoring frequency specified in Table G5 – Water Storage Monitoring.
G17	In the event that water storages defined in Table G5 – Water Storage Monitoring exceed the contaminant limits defined in Table G6 – Onsite Water Storage Contaminant Limits, the holder of the environmental authority must implement measures, where practicable, to prevent access to waters by all livestock.
G18	Receiving Environment Monitoring and Contaminant Trigger Levels The quality of the receiving waters must be monitored at the locations specified in Table G8 - Receiving Water Upstream Background Sites and Downstream Monitoring Points for each quality characteristic and at the monitoring frequency stated in Table G7 – Receiving Waters Contaminant Trigger Levels.

G19	If quality characteristics of the receiving water at the downstream monitoring points exceed any of the trigger levels specified in Table G7 - Receiving Waters Contaminant Trigger Levels during a release event the environmental authority holder must compare the downstream results to the upstream results in the receiving waters and: 1. where the downstream result is the same or a lower value than the upstream value for the quality characteristic, then no action is to be taken; or 2. where the downstream results exceed the upstream results, complete an investigation in accordance with the ANZECC and ARMCANZ 2000 methodology, into the potential for environmental harm and provide a written report to the administering authority in the next annual return, outlining: a) details of the investigations carried out; and b) actions taken to prevent environmental harm. Note: Where an exceedance of a trigger level has occurred and is being investigated, in accordance with G19(2) of this condition, no further reporting is required for subsequent trigger events for that quality characteristic.
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Table G5 - Water Storage Monitoring

Water Storage Description	Northing (GDA94)	Easting (GDA94)	Monitoring Location	Frequency of Monitoring
Raw Water Dam (RWD)	7582089	647347	RWD Gantry	Quarterly
Return Water Dam	7581943	646285	Return Water Dam Gantry	Quarterly

Table G6 - Onsite Water Storage Contaminant Limits

Quality Characteristic	Test Value	Contaminant Limit
pH (pH unit)	Range	Greater than 4, less than 9 ₂
EC (µS/cm)	Maximum	5970 ¹
Fluoride (mg/L)	Maximum	2 ₁
Aluminium (mg/L)	Maximum	5 ₁
Arsenic (mg/L)	Maximum	0.5 ¹
Cadmium (mg/L)	Maximum	0.01 ¹

Cobalt (mg/L)	Maximum	1 ₁
Copper (mg/L)	Maximum	1 ₁
Lead (mg/L)	Maximum	0.1 ¹
Nickel (mg/L)	Maximum	1 ₁
Zinc (mg/L)	Maximum	20 ¹

Notes:

1 Contaminant limit based on ANZECC and ARMCANZ (2000) stock water quality guidelines.

2 Page 4.2-15 of ANZECC and ARMCANZ (2000) "Soil and animal health will not generally be affected by water with pH in the range of 4-9".

Note: Total measurements (unfiltered) must be taken and analysed.

Table G7 - Receiving Waters Contaminant Trigger Levels

Quality Characteristic	Trigger Level	Monitoring Frequency	Comments
pH	6.5 – 8.0	Daily during the release	See Table G2 comments
Electrical Conductivity (μ S/cm)	1000		
Turbidity (NTU)	No Limits		
Suspended solids (mg/L)	5000		
Sulphate (SO ₄ ²⁻) (mg/L)	1000		

G20	Receiving Environment Monitoring Program (REMP) A REMP must be developed and implemented by 27 February 2010 to monitor and record the effects of the release of contaminants on the receiving environment periodically and whilst contaminants are being discharged from the site, with the aims of identifying and describing the extent of any adverse impacts to local environmental values, and monitoring any changes in the receiving water. A copy of the REMP must be provided to the administering authority prior to its implementation and due consideration given to any comments made on the REMP by the administering authority. For the purposes of the REMP, the receiving environment is the waters of the Isaac River and connected waterways within 20km downstream of the release.
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G21	The REMP must address (but not necessarily be limited to) the following: 1. description of potentially affected receiving waters including key communities and background water quality characteristics based on accurate and reliable monitoring data that takes into consideration any temporal variation (e.g. seasonality); and 2. description of applicable environmental values and water quality objectives to be achieved (i.e. as scheduled pursuant to the Environmental Protection (Water) Policy 1997); and 3. any relevant reports prepared by other governmental or professional research organisations that relate to the receiving environment within which the REMP is proposed; and 4. water quality targets within the receiving environment to be achieved, and clarification of contaminant concentrations or levels indicating adverse environmental impacts during the REMP₁; 5. monitoring for any potential adverse environmental impacts caused by the release; 6. monitoring of stream flow and hydrology; 7. monitoring of toxicants should consider the indicators specified in Table G3 to assess the extent of the compliance of concentrations with water quality objectives and/or the ANZECC and ARMCANZ 2000 guidelines for slightly to moderately disturbed ecosystems; 8. monitoring of physical chemical parameters, <u>at a minimum</u>, those specified in Table G2 (in addition to dissolved oxygen saturation and temperature); 9. monitoring biological indicators (for macroinvertebrates in accordance with the AusRivas methodology) and metals/metalloids in sediments (in accordance with ANZECC and ARMCANZ 2000, BATLEY and/or the most recent version of AS5667.1 Guidance on Sampling of Bottom Sediments) for permanent, semipermanent water holes and water storages₁; 10. the locations of monitoring points (including the locations specified in Table G8 which are background and downstream impacted sites for each release point)₁; 11. the frequency or scheduling of sampling and analysis sufficient to determine water quality objectives and to derive site specific reference values within two (2) years (depending on wet season flows) in accordance with the Queensland Water Quality Guidelines 2006. For ephemeral streams, this should include periods of flow irrespective of mine or other discharges; 12. specify sampling and analysis methods and quality assurance and control; 13. any historical datasets to be relied upon; 14. description of the statistical basis on which conclusions are drawn, and; 15. any spatial and temporal controls to exclude potential confounding factors.
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G22	A report outlining the findings of the REMP, including all monitoring results and interpretations in accordance with condition G20 must be prepared and submitted in writing to the administering authority by 1 October 2011. This should include an assessment of background water quality, any assimilative capacity for those contaminants monitored and the suitability of current discharge limits to protect downstream environment values.
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Table G8 - Receiving Water Upstream Background Sites and Downstream Monitoring Points

Monitoring Points	Receiving Waters Location Description	Northing (AGD84)	Easting (AGD84)
Upstream Background Monitoring Points			
UP GS MP 1	Harrybrandt Creek (prior to confluence with 30 Mile Creek)	7579495	648857
Downstream Monitoring Points			
DN MP 1	30 Mile Creek at Peak Downs Highway	7580616	648525
DN GS MP 2	Harrybrandt Creek upstream of Harrybrandt Homestead crossing	7580205	657025

Note: The data from background monitoring points must not be used where they are affected by releases from other mines.

G23	Water Re-use Mine affected water may be piped or trucked or transferred by some other means that does not contravene the conditions of this environmental authority and deposited into artificial water storage structures, such as farm dams or tanks, or used directly at properties owned by the environmental authority holder or a third party (with the written consent of the third party).
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G24	Water General All determinations of water quality must be: 1. performed by a person or body possessing appropriate experience and qualifications to perform the required measurements; 2. made in accordance with methods prescribed in the latest edition of the administering authority's Water Quality Sampling Manual; Note: Condition G26 <u>G24</u> requires the Water Quality Manual to be followed and where it is not followed because of exceptional circumstances this should be explained and reported with the results. 3. collected from the monitoring locations identified within this environmental authority, within ten (10) hours of each other where possible; 4. carried out on representative samples; and 5. laboratory testing must be undertaken using a laboratory accredited (e.g. NATA) for the method of analysis being used.
G25	The release of contaminants directly or indirectly to waters: 1. must not produce any visible discolouration of receiving waters; nor 2. must not produce any slick or other visible or odorous evidence of oil, grease or petrochemicals nor contain visible floating oil, grease, scum, litter or other objectionable matter.
G26	Annual Water Monitoring Reporting 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 in the specified format with each annual return: 1. the date on which the sample was taken; 2. the time at which the sample was taken; 3. the monitoring point at which the sample was taken; 4. the measured or estimated daily quantity of the contaminants released from all release points; 5. the release flow rate at the time of sampling for each release point; 6. the results of all monitoring and details of any exceedances with the conditions of this environmental authority; and 7. water quality monitoring data must be provided to the administering authority in the specified electronic format upon request.

G27	Water Management Plan A Water Management Plan must be developed and implemented by 27 February 2010 that provides for the proper and effective management of the actual and potential environmental impacts resulting from the mining activity and to ensure compliance with the conditions of this environmental authority.
G28	The Water Management Plan must be developed in accordance with the administering authority's ies Guideline for Preparing a Water Management Plan 2009 (to be developed by 1 October) or any updates that become available from time to time and must include at least the following components: 1. Contaminant Source Study; 2. Site Water Balance and Model; 3. Water Management System; 4. Saline Drainage Prevention and Management Measures; 5. Acid Rock Drainage Prevention and Management Measures (if applicable); 6. Emergency and Contingency Planning; 7. Monitoring and Review.
G29	Each year the holder of the environmental authority must undertake a review of the Water Management Plan prior to the wet season (i.e. by 1 November) and a further review following the wet season (i.e. by 1 May the following year) to ensure that proper and effective measures, practices or procedures are in place so that the mine is operated in accordance with the conditions of this environmental authority and that environmental harm is prevented or minimised.
G30	A copy of the Water Management Plan and/or a review of the Water Management Plan must be provided to the administering authority on request.
G31	Acid Rock Draining The holder of this environmental authority must ensure proper and effective measures are taken to avoid or otherwise minimise the generation and/or release of acid rock drainage.
G32	Stormwater and Water sediment controls 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 storm water.
G33	The maintenance and cleaning of any vehicles, plant or equipment must not be carried out in areas from which contaminants can be released into any receiving waters.

G34	Any spillage of wastes, contaminants or other materials must be cleaned up as quickly as practicable to minimise the release of wastes, contaminants or materials to any stormwater drainage system or receiving waters.
G35	Fitzroy River Basin Study The administering authority and the holder of this environmental authority both acknowledge that the conditions for release of contaminants to the Isaac River System in this environmental authority have been calculated without the benefit of the findings of projects proposed to be undertaken as per recommendations 2 and 3 of the Study of cumulative impacts on water quality of mining activities in the Fitzroy River Basin (April 2009). The administering authority may, based on the information provided in the study report when it becomes available, all relevant information available at the time and the regulatory framework applicable at that time, consult with the holder of this environmental authority about the conditions in the environmental authority concerning the treatment and disposal of waste water. The aim of the consultation shall be the meaningful review of the contaminant release limits imposed in this authority having regard to: 1. the study results; 2. near field monitoring results; 3. QLD Water Quality Guidelines; and 4. best practice environmental management. If this review leads to a change in the requirements on this environmental authority holder, this shall be advanced by way of an authority amendment or a Transitional Environmental Program and as is necessary or desirable. 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 storm water.
G36	Sewage effluent All effluent released from the treatment plant must be monitored at the frequency and for the parameters specified in Table G9 - Sewage effluent quality targets for dust suppression and irrigation.
G37	Sewage effluent used for dust suppression or irrigation must not exceed sewage effluent release limits defined in Table G9 - Sewage effluent quality targets for dust suppression and irrigation .
G38	Sewage effluent used for dust suppression or irrigation must not cause spray drift or over spray to any sensitive place.

<u>G39</u>	<u>Groundwater</u> <u>By 3 June 2026, the holder of this environmental authority must install a groundwater monitoring network capable of detecting and monitoring impacts to groundwater throughout mining and rehabilitation.</u>
<u>G40</u>	<u>Following installation of the groundwater monitoring network in accordance with Condition G39, the EA holder must undertake monthly monitoring at all bores for a minimum of 18 months.</u>
<u>G41</u>	<u>A Groundwater Monitoring and Management Program (GMMP) must be developed, implemented and maintained for the Coppabella Coal Mine, including updates as required by reviews of the monitoring data, GMMP or model.</u> <u>The first version of the GMMP must be developed and implemented and provided to the administering authority before 1 December 2028.</u>
<u>G42</u>	<u>The GMMP required by Condition G41 must:</u> <u>a) provide a hydrogeological conceptual model and numerical groundwater model; and</u> <u>b) identify all potential sources of contamination to groundwater from the activities; and</u> <u>c) identify all environmental values that may be impacted; and</u> <u>d) detail groundwater levels in all identified hydrogeological units present across and adjacent to the site to confirm existing groundwater flow paths; and</u> <u>e) ensure all potential groundwater impacts due to the activities authorised under this environmental authority are identified, monitored and mitigated; and</u> <u>f) ensure adequate groundwater monitoring and data analysis is undertaken to achieve the following objectives:</u> <u>i. detect any impacts to groundwater quality due to the activities authorised under this environmental authority; and</u> <u>ii. detect any changes to groundwater level due to the activities authorised under this environmental authority; and</u> <u>iii. determine trends in groundwater quality; and</u> <u>iv. propose compliance limits for groundwater quality and level;</u> <u>v. determine any interaction or impact from groundwater on surface water ; and</u> <u>g) document groundwater management and monitoring methodologies undertaken for the duration of all the activities authorised under this environmental authority; and</u> <u>h) provide an appropriate quality assurance and quality control program; and</u> <u>i) include a review process to identify improvements to the program that includes addressing any comments provided by the administering authority.</u>

G39	Co-disposal Drainage control systems for the co-disposal area must be detailed in the Plan of Operations.
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Table G9 - Sewage effluent quality targets for dust suppression and irrigation

Quality characteristics	Release limit	Units	Limit type	Monitoring frequency
5-day Biochemical Oxygen Demand (uninhibited)	Less than 20	mg/l	max	Monitored only when effluent is used in operations
pH	6.5 – 8.5		range	Monitored only when effluent is used in operations
Free Chlorine Residual	0.5-0.9	mg/l	max	Monitored only when effluent is used in operations
Faecal Coliforms, based on the average of a minimum of five samples collected	Less than 1000	Colonies per 100 millilitres	max	Monitored only when effluent is used in operations

Petroleum Activities	
Condition Number	Condition Number
H1	Petroleum activities Petroleum activities not associated with the mining of incidental coal seam gas are authorised to be carried out on PL1015.
H2	For the purpose of this environmental authority, Conditions H3 to H13 only relate to petroleum activities not associated with the mining of incidental coal seam gas authorised by Condition H1 .

H3	Venting and flaring Unless venting is authorised under the Petroleum and Gas (Production and Safety Act) 2004, or the Petroleum Act 1923, waste gas from petroleum activities must be flared in a manner that complies with all of Condition H3(1) and H3(2) and H3(3), or H3(4): 1. an automatic ignition system is used; and 2. a flame is visible at all times while the waste gas is being flared; and 3. there are no visible smoke emissions other than for a total period of no more than 5 minutes in any 2 hours; or 4. it uses an enclosed flare.
H4	Stimulation activities Stimulation activities are not permitted.
H5	Groundwater The extraction of groundwater as part of the petroleum activity(ies) from underground aquifers must not directly or indirectly cause environmental harm to any waters, unless already authorised under this environmental authority.
H6	Drilling activities Oil based or synthetic based drilling muds must not be used in the carrying out of the petroleum activity(ies).
H7	Drilling activities must not result in the connection of the target gas producing formation and another aquifer.
H8	Practices and procedures must be in place to detect, as soon as practicable, any fractures that have or may result in the connection of a target formation and another aquifer as a result of drilling activities.
H9	Planning for land disturbance The location of the petroleum activity(ies) must be selected in accordance with the following site planning principles: 1. maximise the use of areas of pre-existing disturbance; 2. in order of preference, avoid, minimise or mitigate any impacts, including cumulative impacts, on areas of native vegetation or other areas of ecological value; 3. minimise disturbance to land that may result in land degradation; 4. in order of preference, avoid then minimise isolation, fragmentation, edge effects or dissection of tracts of native vegetation; and 5. in order of preference, avoid then minimise clearing of native mature trees.

H10	Waste Measures must be implemented so that waste is managed in accordance with the waste and resource management hierarchy and the waste resource management principles.
H11	Waste, including waste fluids, but excluding waste used in closed-loop systems, must be transported off-site for lawful re-use, remediation, recycling or disposal.
H12	Waste fluids, other than flare precipitant stored in flare pits, or residual drilling material or drilling fluids stored in sumps, must be contained in either: 1. an above ground container; or 2. a structure which contains the wetting front.
H13	Water All water generated as a result of the petroleum activities must be managed in accordance with Schedule G – Water of this environmental authority.

<u>Biodiversity</u>	
<u>Condition number</u>	<u>Condition</u>
<u>I1</u>	<u>Biodiversity offsets</u> <u>Significant residual impacts to prescribed environmental matters, other than if the impacts were authorised by an existing authority issued before the commencement of the <i>Environmental Offsets Act 2014</i>, are not authorised under this environmental authority or the <i>Environmental Offsets Act 2014</i> unless the impacts are specified in Table I1 – Authorised impacts to prescribed environmental matters in the locations shown in Figure 3 – Location of MSES Impacts or Figure 4 Location of MNES Impacts.</u>
<u>I2</u>	<u>Records demonstrating that each impact to a prescribed environmental matter not listed in Table I1 - Authorised impacts to prescribed environmental matters did not, or is not likely to, result in a significant residual impact to that matter must be: completed by an appropriately qualified person; and kept for the life of the environmental authority.</u>
<u>I3</u>	<u>An environmental offset made in accordance with the <i>Environmental Offsets Act 2014</i> and Queensland Environmental Offsets Policy, as amended from time to time, must be undertaken for the maximum extent of impact to each prescribed environmental matter authorised in Table I1 - Authorised impacts to prescribed environmental matters.</u>
<u>I4</u>	<u>The notice of election for the environmental offset required by condition I1, must be provided to the administering authority no less than three months before the proposed commencement of the significant residual impacts for which the environmental offset is required.</u>

Table I1 - Authorised impacts to prescribed environmental matters

<u>Prescribed environmental matter</u>	<u>ML70164 Maximum extent of impact (ha)</u>	<u>ML70236 Maximum extent of impact (ha)</u>	<u>Environmental offset required under Environmental Offset Act 2014</u>	<u>Location</u>
<u>Threatened Ecological Community</u>				
<u>Endangered RE 11.5.16 (Brigalow TEC)³</u>	<u>31.73</u>	<u>9.28</u>	<u>No*</u>	<u>Figure 4</u>
<u>Regulated Vegetation</u>				
<u>Endangered RE 11.5.16¹</u>	<u>31.73</u>	<u>9.28</u>	<u>No*</u>	<u>Figure 4</u>
<u>Of concern RE 11.3.4²</u>	<u>29.98</u>		<u>Yes</u>	<u>Figure 3</u>
<u>Regional ecosystem within a defined distance of a watercourse – RE 11.5.3 2</u>	<u>11.25</u>		<u>Yes</u>	<u>Figure 3</u>
<u>Regional ecosystem within a defined distance of a watercourse – RE 11.3.25²</u>	<u>12.85</u>		<u>Yes</u>	<u>Figure 3</u>
<u>Protected Wildlife Habitat</u>				
<u>Greater Glider <i>Petauroides volans</i>³</u>	<u>76.45</u>	<u>172.12</u>	<u>No*</u>	<u>Figure 4</u>
<u>Koala <i>Phascolarctos cinereus</i>³</u>	<u>76.45</u>	<u>172.12</u>	<u>No*</u>	<u>Figure 4</u>
<u>Ornamental Snake <i>Denisonia maculata</i> 3</u>	<u>59.60</u>	<u>32.8</u>	<u>No*</u>	<u>Figure 4</u>
<u>Squatter Pigeon <i>Geophaps scripta</i>³</u>	<u>65.49</u>	<u>172.12</u>	<u>No*</u>	<u>Figure 4</u>
<u>Protected Wildlife Habitat for Special Least Concern species</u>				
<u>Short Beaked Echidna <i>Tachyglossus aculeatus</i>²</u>	<u>129.66</u>		<u>No</u>	<u>Figure 4</u>

*Impact subject to Commonwealth assessment under the EPBC Act

¹ MSES impact area overlaps with MNES area

² MSES impact area only

³ Matter is both MNES and MSES

Definitions

Key terms and/or phrases used in this document are defined in this section. Where a term is not defined, the definition in the *Environmental Protection Act 1994*, its regulations or environmental protection policies must be used. If a word remains undefined it has its ordinary meaning.

Affected person is 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.

Annual inspection report means 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);

- (a) against recommendations contained in previous annual inspections reports;
- (b) against recognised dam safety deficiency indicators;
- (c) for changes in circumstances potentially leading to a change in consequence category;
- (d) for conformance with the conditions of this authority;
- (e) for conformance with the 'as constructed' drawings;
- (f) 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);
- (g) 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, means that 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:

- (a) exactly what has been assessed and the precise nature of that determination;
- (b) the relevant legislative, regulatory and technical criteria on which the assessment has been based;
- (c) 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
- (d) 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, means:

- (a) operations of any kind and all things constructed, erected or installed for that dam; and
- (b) any land used for those operations.

Authority means an environmental authority or a development approval.

Certification means assessment and approval must be undertaken by a suitably qualified and experienced person in relation to any assessment or documentation required by this Manual, 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 have a corresponding meaning as 'certification'.

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.

Coal seam gas water means groundwater that is necessarily or unavoidably brought to the surface in the process of coal seam gas exploration or production.

Consequence in relation to a structure as defined, means 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 means 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 (ESR/2016/1933)*.

Dam means 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 means 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 is 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 means an available volume, estimated in accordance with the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)* 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, means the certifier of the design plan for the regulated dam.

Development approval means 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:

- a) compacting, removing, covering, exposing or stockpiling of earth
- b) removal or destruction of vegetation or topsoil of both to an extent with the land has been made susceptible to erosion
- c) carrying out mining within a watercourse, waterway, wetland or lake
- d) the submersion of areas by tailings or hazardous contaminant storage and dam/structure walls
- e) temporary infrastructure, including any infrastructure (roads, tracks, bridges, culverts, dams/structures, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc.) which is to be removed after the mining activity has ceased.
- f) releasing of contaminants into the soil, or underlying geological strata.

However, the following areas are not included when calculating areas of 'disturbance':

- a) areas off lease (e.g. roads or tracks which provide access to the mining lease)
- b) areas previously disturbed which have achieved the rehabilitation outcomes
- c) 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)
- d) areas under permanent infrastructure. Permanent infrastructure includes any infrastructure (roads, tracks, bridges, culverts, dams/structures, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc.) which is to be left by agreement with the landowners.
- e) disturbance that pre-existed the grant of tenure.

Enclosed flare means a device where the residual gas is burned in a cylindrical or rectilinear enclosure that includes a burning system and a damper where air for the combustion reaction is admitted.

Emergency action plan means 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 means a structure that was in existence prior to the adoption of this schedule of conditions under the authority.

Extreme Storm Storage – means a storm storage allowance determined in accordance with the criteria in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)* published by the administering authority

Flare pit means containment area where any hydrocarbon that is discovered in an over-pressured reservoir during a drilling operation is diverted to, and combusted. The flare pit is only used during the drilling and work over process on a petroleum well.

Flowable substance means 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.

Holder means:

- a) where this document is an environmental authority, any person who is the holder of, or is acting under, that environmental authority; or
- b) where this document is a development approval, any person who is the registered operator for that development approval.

Hydraulic performance means 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 (ESR/2016/1933)*.

Incidental coal seam gas is defined in section 318CM of the *Mineral Resources Act 1989* and means coal seam gas mined, or proposed to be mined under the conditions below:

- 1. the mining lease holder may mine coal seam gas in the area of the mining lease only if:
 - (a) the mining happens as a necessary result of coal or oil shale mining carried out under the mining lease; or
 - (b) the mining is necessary to ensure a safe mine working environment for coal or oil shale mining under the mining lease; or
 - (c) the mining is necessary to minimise the fugitive emission of methane during the course of coal mining operations.

Incidental coal seam gas includes coal seam gas in a goaf if the gas is mined, or proposed to be mine, under (1)(a) – (1)(c).

Land in the 'land schedule' of this document means 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 means the selected post mining use of the land, which is planned to occur after the cessation of mining operations.

Levee means 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.

Low consequence dam means 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 (ESR/2016/1933)*; and

Mandatory reporting level or MRL means a warning and reporting level determined in accordance with the criteria in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)* published by the administering authority.

Manual means the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)* published by the administering authority.

Mine affected water:

(a) means 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 2019* 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 mine's dewatering activities;
- vi) a mix of mine affected water (under any of paragraphs i)-v) and other water.

(b) 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:

- i) 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
- ii) 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:
 - a) areas that are been capped and have monitoring data demonstrating hazardous material adequately contained with the site;
 - b) 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
- iii) both.

Modification or modifying (see definition of 'construction').

Operational plan includes:

- (a) normal operating procedures and rules (including clear documentation and definition of process inputs in the DSA allowance);

(b) 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.

Prescribed environmental matter has the meaning in section 10 of the *Environmental Offsets Act 2014*, limited to the matters of State environmental significant listed in schedule 2 of the Environmental Offsets Regulation 2014.

Register of Regulated Dams includes:

- (a) Date of entry in the register;
- (b) Name of the dam, its purpose and intended/actual contents;
- (c) The consequence category of the dam as assessed using the Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933);
- (d) 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 dam;
- (e) Name and qualifications of the suitably qualified and experienced person who certified the design plan and 'as constructed' drawings;
- (f) For the regulated dam, other than in relation to any levees –
 - i. The dimensions (metres) and surface area (hectares) of the dam measured at the footprint of the dam;
 - ii. Coordinates (latitude and longitude in GDA94) within five metres at any point from the outside of the dam including its storage area
 - iii. Dam crest volume (megalitres);
 - iv. Spillway crest level (metres AHD).
 - v. Maximum operating level (metres AHD);
 - vi. Storage rating table of stored volume versus level (metres AHD);
 - vii. Design storage allowance (megalitres) and associated level of the dam (metres AHD);
 - viii. Mandatory reporting level (metres AHD);
- (g) The design plan title and reference relevant to the dam;
- (h) The date construction was certified as compliant with the design plan;
- (i) The name and details of the suitably qualified and experienced person who certified that the constructed dam was compliant with the design plan;
- (j) Details of the composition and construction of any liner;
- (k) The system for the detection of any leakage through the floor and sides of the dam;
- (l) 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;
- (m) Dates when recommendations and actions arising from the annual inspection were provided to the administering authority;
- (n) Dam water quality as obtained from any monitoring required under this authority as at 1 November of each year.

Regulated dam means any dam in the significant or high consequence category as assessed using the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)* 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.

Rehabilitation means the process of reshaping and revegetating land to restore it to a stable landform.

Residual drilling material means 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.

Significant residual impact has the meaning in section 8 of the *Environmental Offsets Act 2014*.

Stimulation means a technique used to increase the permeability of natural underground reservoir that is undertaken above the formation pressure and involves the addition of chemicals. It includes fracturing / ~~hydrofracing~~hydrofracking, fracture acidizing and the use of proppant treatments.

Explanatory note: This definition is restricted from that in the *Petroleum and Gas (Production and Safety) Act 2004* in order to only capture the types of stimulation activities that pose a risk to environmental values of water quality in aquifers.

Structure means dam or levee.

Spillway means a weir, channel, conduit, tunnel, gate or other structure designed to permit discharges from the dam, normally under flood conditions or in anticipation of flood conditions.

Suitably qualified and experienced person in relation to regulated structures means 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 means a plan that manages an integrated containment system that shares the required DSA and/or ESS volume across the integrated containment system.

Void means 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—

- (a) in a natural channel, whether artificially improved or not; or
- (b) 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.

Waste and resource management hierarchy has the meaning provided in section 9 of the *Waste Reduction and Recycling Act 2011* and is the following precepts, listed in the preferred order in which waste and resource management options should be considered:

- a) AVOID unnecessary resource consumption
- b) REDUCE waste generation and disposal
- c) RE-USE waste resources without further manufacturing
- d) RECYCLE waste resources to make the same or different products
- e) RECOVER waste resources, including the recovery of energy
- f) TREAT waste before disposal, including reducing the hazardous nature of waste
- g) DISPOSE of waste only if there is no viable alternative.

Waste and resource management principles has the meaning in section 4(2)(b) of the *Waste Reduction and Recycling Act 2011* and means the:

- a) polluter pays principle
- b) user pays principle
- c) proximity principle
- d) product stewardship principle

Waste fluids has the meaning in section 13 of the Environmental Protection Act 1994 in conjunction with the common meaning of “fluid” which is “a substance which is capable of flowing and offers no permanent resistance to changes of shape”. Accordingly, to be a waste fluid, the waste must be a substance which is capable of flowing and offers no permanent resistance to changes of shape.

Water year means the 12-month period from 1 July to 30 June.

Wet season means 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.

Appendices

Figure 1 – Authorised Release Points

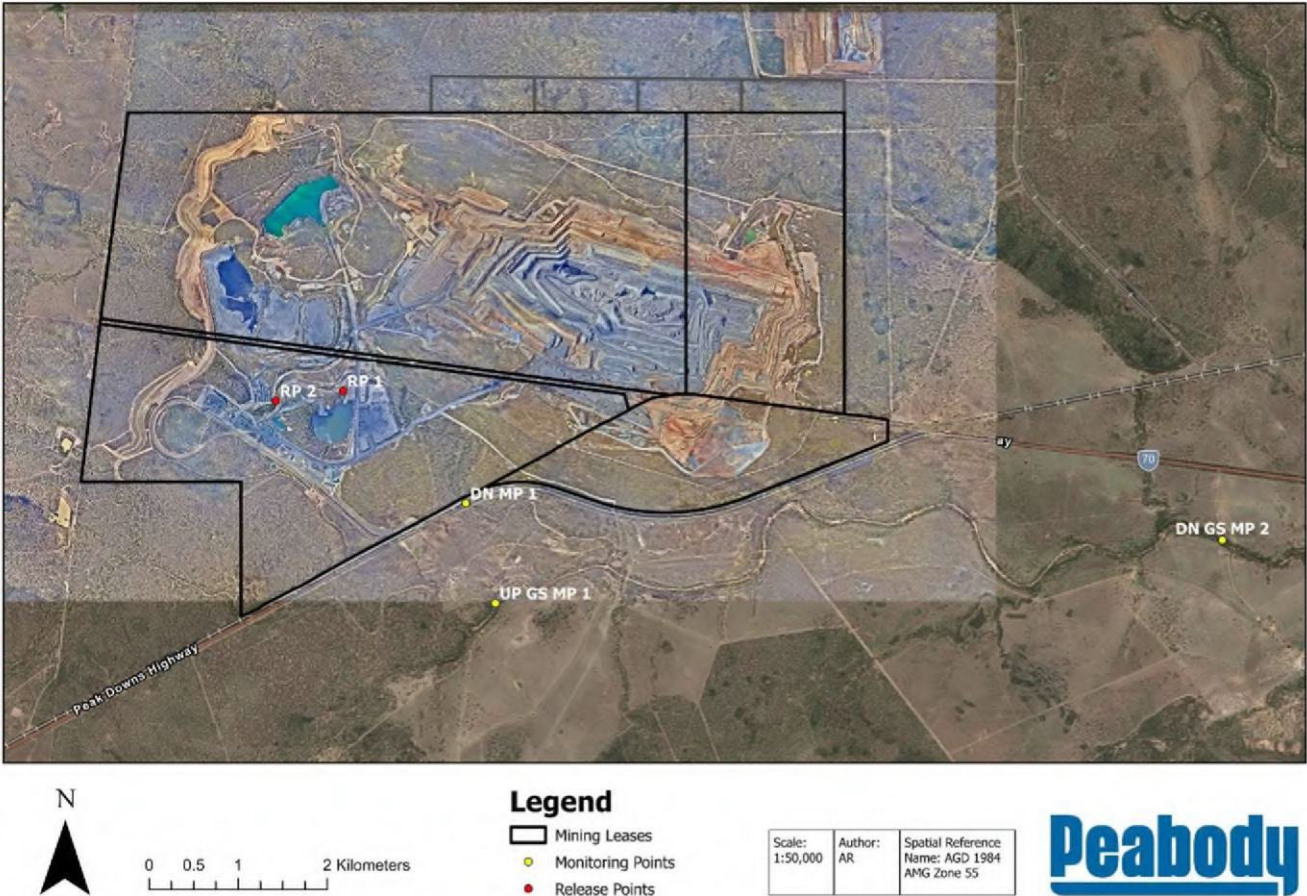


Figure 2 – Authorised Disturbance Extent

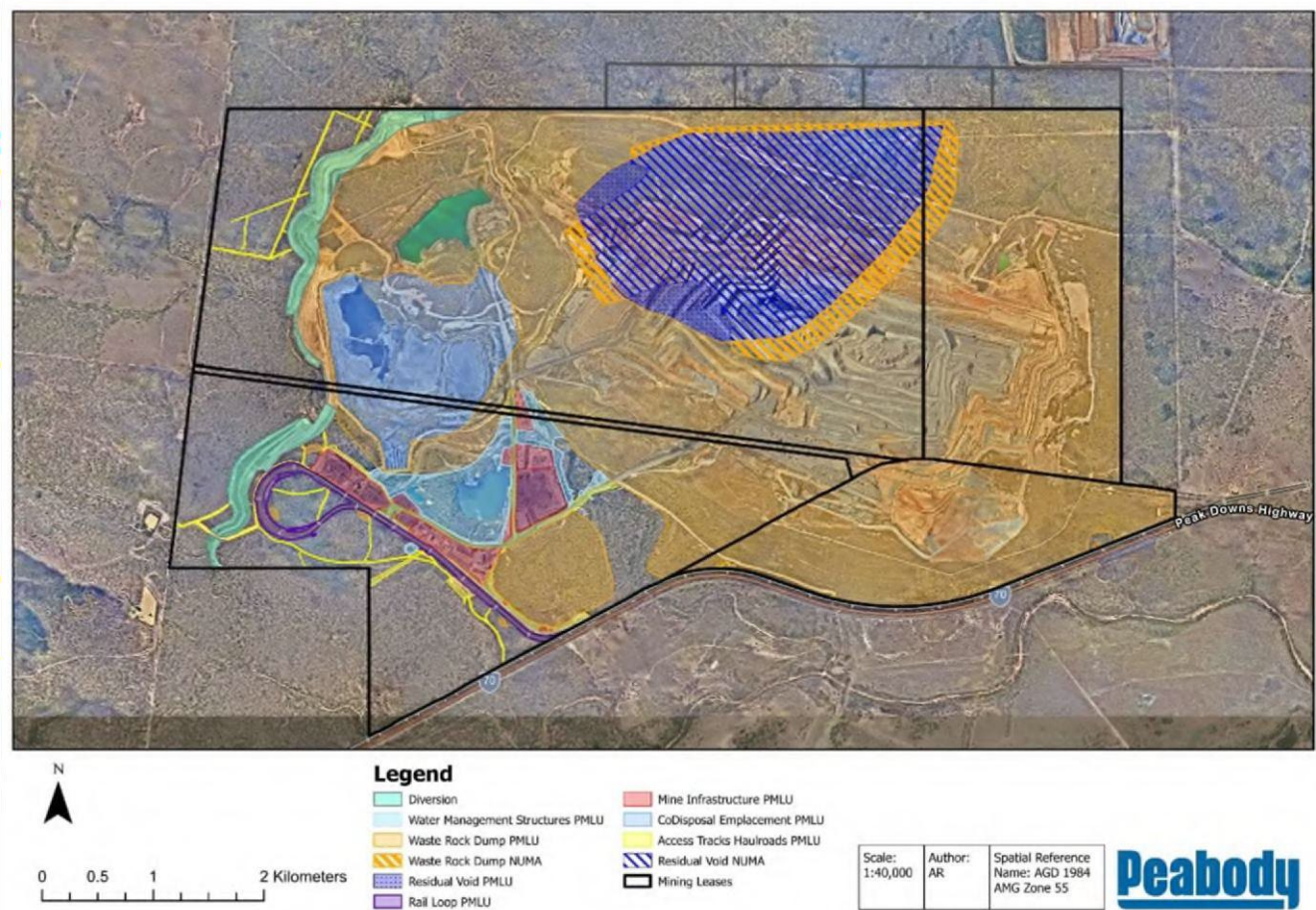


Figure 3 Location of MSES Impacts

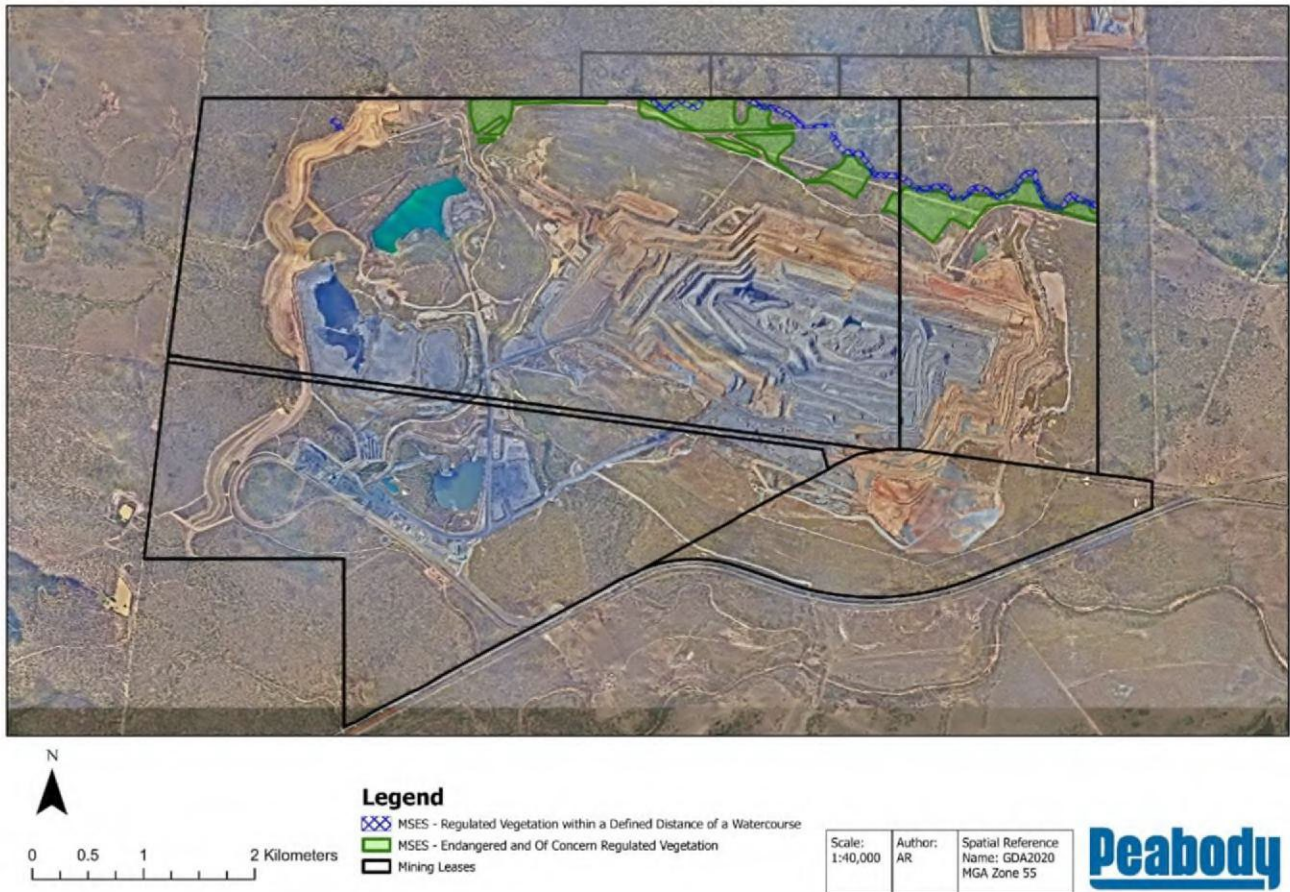
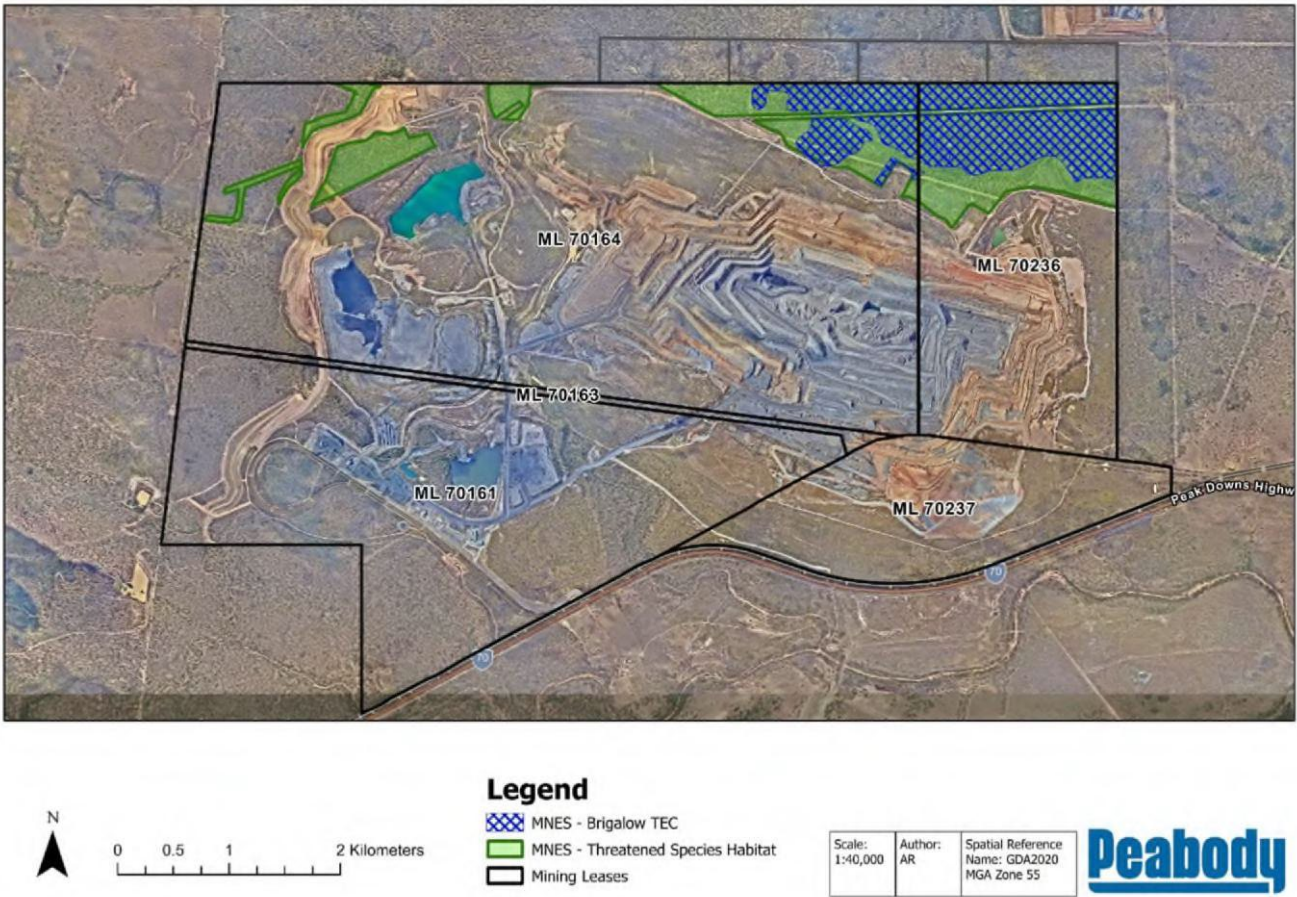


Figure 4 – Location of MNES impacts



END OF ENVIRONMENTAL AUTHORITY