Notice

Environmental Protection Act 1994

Information request

This information request is issued by the administering authority under section 140 of the Environmental Protection Act 1994 *to request further information needed to assess an amendment application for a site-specific environmental authority.*

To: MMG Dugald River Pty Ltd
Level 24, 48 Freshwater Place
SOUTHBANK VICTORIA 3006

Attention: Dirk McNicoll
Email: dirk.mcnicoll@mmg.com

Our reference: A-EA-AMD-100858796 | EPML00731213
Our reference: C-EA-100869943 | 101/0045099

Further information is required to assess an amendment application for environmental authority

1. Application details

The amendment application for a site-specific environmental authority and PRCP schedule was received by the administering authority on 6 May 2025.

The application reference number is: A-EA-AMD-100868796.

Land description: Mining lease (ML) 2467, ML2468, ML2469, ML2470, ML2471, ML2477, ML2478, ML2479, ML2480, ML2481, ML2482, ML2496, ML2497, ML2498, ML2499, ML2500, ML2501, ML2502, ML2556, ML2557, ML2558, ML2559, ML2596, ML2599, ML2601, ML2638, ML2684, ML2685, ML7496, ML90047, ML90049, ML90050, ML90051, ML90211, ML90212, ML90213, ML90218, ML90220, ML90230 and ML90237;

Mineral Development Licence (MDL) 79.

2. Information request

The administering authority has considered the abovementioned application and is writing to inform you that further information is required to assess the application (an information request).

The information requested is specified in Attachment 1, attached to this notice.

3. Actions

The abovementioned application will lapse unless you respond by giving the administering authority -

(a) all of the information requested; or
(b) part of the information requested together with a written notice asking the authority to proceed with the assessment of the application; or
(c) a written notice –
    i. stating that you do not intend to supply any of the information requested; and
    ii. asking the administering authority to proceed with the assessment of the application.

A response to the information requested must be provided by 13 February 2026 (the information response period). If you wish to extend the information response period, a request to extend the period must be made at least 10 business days before the last day of the information response period.

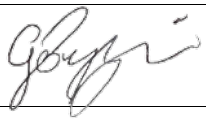
The response to this information request or a request to extend the information response period can be submitted to the administering authority by email to ESCairns@des.qld.gov.au

If the information provided in response to this information request is still not adequate for the administering authority to make a decision, your application may be refused as a result of section 176 of the *Environmental Protection Act 1994,* where the administering authority must have regard to any response given for an information request.

4. Human rights

A human rights assessment was carried out in relation to this decision, and it was determined that the decision is compatible with human rights.

If you require more information, please contact Minerals Business Centre on the details listed below.



Signature

13 August 2025

Date

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

Enquiries:
Minerals Business Centre
PO Box 7230, Cairns QLD 4870
Phone: (07) 4222 5352
Email: ESCairns@detsi.qld.gov.au

Attachments

Attachment 1: Additional information required for an application to amend environmental authority and PRCP Schedule EPML00731213, Dugald River Mine.

Attachment 1: Additional information required for an application to amend environmental authority and PRCP Schedule EPML00731213, Dugald River Mine

Item	Reference	Matter	Information Request
Biodiversity			
1	Appendix G: Dugald River Mine – Offset Assessment Report, Wulguru Technical Services (23 April 2025), Version 1.0.	The impact assessment outlined in section 4.1 of the supporting document identifies the area of regulated vegetation intersecting a watercourse as an approximate total. However, to enable the evaluation, conditioning, and potential offsetting of the impacts related to the proposed amendments, the size and extent is required to be shown on a Figure. This should be presented on a detailed plan or map that: • Clearly delineates each area of regulated vegetation intersecting a watercourse. • Clearly identifies all disturbance areas, marking their boundaries and specifying the exact area (in hectares or square metres) for each disturbance. • Is prepared at an appropriate scale to facilitate accurate on-ground assessment and verification.	Provide a detailed map that identifies the specific areas of disturbance to matters of state environmental significance (MSES). If any discrepancies arise between the amended detailed map and the initial proposed disturbance or the previously completed Significant Residual Impact (SRI) assessments, an updated SRI assessment must be completed. This amended assessment should account for any changes and ensure alignment with the revised disturbance areas.
2	Appendix G: Dugald River Mine – Offset Assessment Report, Wulguru Technical Services (23 April 2025), Version 1.0.	The impact assessment for regulated vegetation – essential habitat focuses exclusively on habitat for the purple-necked rock wallaby (PNRW), covering an area of 56.65 hectares (ha). The proposed expansion will result in a reduction of 56.65ha of the habitat for the local PNRW population. When combined with the habitat loss already authorised under previous approvals, this represents a cumulative impact equivalent to 5.25% of the total habitat available to the local population.	Provide a detailed assessment of the local population's viability, the condition and significance of the affected habitat, and the potential of implementing mitigation measures. If the cumulative impact is considered significant, additional offsets may be required to ensure the long-term survival of the PNRW population.

Item	Reference	Matter	Information Request
Groundwater			
3	Environmental Authority EPML00731213 DRM Fluoride Dataset	The adoption of a single site-specific fluoride limit for all DRM groundwater bores is not supported based on the raw data provided. Instead, it is recommended to apply the contemporary groundwater compliance limit approach outlined in *DES (2021) Using monitoring data to assess groundwater quality and potential environmental impacts. Version 2. Department of Environment and Science (DES), Queensland Government, Brisbane*, to establish appropriate fluoride limits. The current environmental authority (EA) fluoride limit of 2 mg/L aligns with the ANZECC & ARMCANZ (2000) guideline for stock watering and is consistent with the revised draft ANZG (2023) livestock drinking water guidelines. However, the ANZG (2018) guidelines propose a stringent fluoride value of 1.7 mg/L for the protection of aquatic ecosystems in slightly to moderately disturbed waters, which is particularly relevant to DRM's groundwater conditions. Fluoride concentrations across the site's bores vary significantly. Some bores do not exceed either the current EA limit of 2 mg/L or the ANZG (2018) guideline of 1.7 mg/L. Based on the provided dataset, bore MB2 is the only compliance bore where the ANZG (2018) default guideline of 1.7 mg/L is not suitable as a limit. Instead, it is recommended that site-specific fluoride limits be developed for MB2 using a Limit A and Limit B approach described in DES (2021).	Propose a Limit A and Limit B approach for all DRM groundwater bores to establish appropriate fluoride limits. It is recommended that: a) site-specific fluoride limits be developed for MB2 using a Limit A and Limit B approach described in DES (2021) b) the ANZG (2018) guideline value of 1.7 mg/L be adopted as the fluoride limit for groundwater at DRM for bores MB4, MB5, MB6, MB9D, and MB9S, referred to as Limit A.

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Surface Water			
4	Section 3.3 and 4.2: Environmental Authority Amendment Application, Supporting Information Report, Dugald River Mine, Wulguru Technical Services (30 May 2025), Version 2.0 Section 3.1.10.3: Progressive Rehabilitation and Closure Plan, Dugald River Mine, Wulguru Technical Services (30 April 2025), Version 3.1	This application does not propose any changes to the release conditions; however, further clarification is needed to determine whether the proposed amendments are anticipated to result in increased volumes or frequency of releases.	Provide clarification on whether the proposed amendments are expected to result in an increase in the volume and/or frequency of releases. If this is the case, it is recommended that a risk assessment be conducted to evaluate whether the EA limits remain suitable and to assess the potential risks associated with an increased contaminant load. This assessment should include the provision of raw data and all relevant parameters of potential concern.
Tailings Storage Facility (TSF) and Spillway			
5	Appendix A: Dugald River Mine Tailings Storage Facility Stage 3 Concept Design, ATC Williams (17 October 2023), Revision A	Insufficient information has been provided to demonstrate that the proposed TSF design, spillway, embankment treatment, and access controls comply with ANCOLD 2012 and Queensland regulatory requirements for high consequence tailings dams. <u>Spillway Requirement</u> According to ANCOLD 2012, TSF dams categorised as significant, high, or extreme consequence require a spillway. For dams such as the Dugald River TSF, an emergency spillway is mandatory to manage events that exceed dam's storage capacity and to prevent dam failure during extreme rainfall	<u>Spillway Requirement</u> a) Provide detailed design documentation including drawings, hydraulic calculations, wave run-up, and allowance for climate change, with a signed compliance statement from a suitably qualified engineer. b) The project should consider full PMF capacity for the spillway, or at a minimum fully document the basis for adopting

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		events. The application does not confirm whether a defined spillway or emergency spillway will be constructed. Specifically, it is unclear if the proposed design includes a spillway capable of safely managing the design flood, which must meet a minimum standard of 1:100,000 Annual Exceedance Probability (AEP) or the Probable Maximum Flood (PMF), without overtopping the embankment crest. This lack of confirmation raises concerns about the TSF's ability to comply with ANCOLD 2012 guidelines and to ensure the safety and integrity of the structure during extreme weather events. <u>Erosional and Structural Stability</u> Appendix A does not provide information for the spillway's erosional or structural stability. The application does not include technical detail about the proposed armouring, channel protection, velocity checks, or structural works. The spillway for tailings must be designed for: • Hydraulic capacity (safe passage of design flood) • Erosional stability (armouring, lining, energy dissipation if needed) • Structural integrity including reinforcement, foundation stability, and resistance to hydraulic forces (if concrete/rock, or if embankment, checks for slope, velocities, and lining required) <u>Embankment Surface Treatment and PMLU</u> With a dedicated spillway, the embankment must be	1:100,000 AEP including, consequence classification, risk evaluation, sensitivity analysis, and independent review per ANCOLD practice. <u>Erosional and Structural Stability</u> Submit analysis of erosional and structural stability for the proposed spillway (conceptual level), including details of any armouring, lining, energy dissipation measures, and demonstration of structural integrity and erosional resistance. <u>Embankment Surface Treatment and PMLU</u> Provide a rehabilitation and surface treatment plan for the entire embankment, with erosion

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		rehabilitated and treated to support the proposed Post-Mining Land Use (PMLU) and ensure long-term erosional stability. This treatment must address not only the potential impacts of extreme flood events but also ongoing environmental and structural stability requirements. Access Controls As the TSF will be remain post closure, the facility must be made safe by preventing human and animal access, unless a comprehensive risk assessment demonstrates that access can be safely permitted.	assessment and modelling commensurate with the risk and PMLU to achieve long-term stability and support the PMLU. Access Controls Provide details of proposed fencing or exclusion measures for closure and post-closure, or a risk-based justification for any alternative.
6	Appendix B: Dugald River Mine PAF Pad Expansion, ATC Williams (July 2024), Revision 0.	The catchment area reporting to PAF Dam 2 is expected to increase significantly in size during Stage 4 (Option 2B). However, Section 5.6.2 of Appendix B does not provide sufficient information to support the assigned “low” or “significant” consequence category for general environmental harm in the event of overtopping or failure. Additionally, the reported low spill risk (2.5%) is not directly applicable to determining the consequence classification. The department requires a comprehensive assessment of the nature, magnitude, and extent of potential impacts to ensure the appropriate consequence category is accurately determined.	Provide a revised Consequence Category Assessment (CCA) that includes sufficient detail to justify the assigned “low” or “significant” consequence category for general environmental harm in the event of overtopping and failure for the PAF Dam 2.
7	Appendix A: Dugald River Mine Tailings Storage Facility Stage 3 Concept Design, ATC Williams (17 October 2023), Revision A	The perimeter drains, comprising a drain and an earth bund as shown in Appendix A, Figures 3 and 5, are intended to function similarly to levees designed to divert contaminated water. In accordance with Section 2.3.1.1 of the *Manual for Assessing Consequence Categories and Hydraulic Performance of*	Provide the following: 1. Based on the outcome of the revised CCA from Item 6 of this IR, provide evidence to demonstrate whether the perimeter drains will be managed as regulated structures

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		Structures (the Manual), and subject to the outcomes of the relevant CCAs, these drains must be managed as regulated structures associated with the relevant dams. Clarification is required on whether the upstream perimeter drains are considered part of PAF Dam 2 for the purposes of the CCAs referenced in Section 5.6. Furthermore, clarification is needed regarding whether the design specifications for the drains, including their capacity to manage a 1 in 100 AEP flow event are suitable in relation to the dam's CCAs. These assessments must be reviewed or updated in accordance with Item 6 above.	associated with the relevant dams. 2. Confirm whether the upstream perimeter drains are considered part of the PAF Dam 2 for the purposes of the CCAs referenced in Section 5.6. 3. Clarify whether the design specifications for the drains including their capacity to manage a 1 in 100 AEP flow event, are suitable in relation to the dam's CCAs. These specifications must be reviewed or updated in accordance with the outcomes of Item 6 above.
8	Appendix B: Dugald River Mine PAF Pad Expansion, ATC Williams (July 2024), Revision 0.	The *PAF Pad Expansion – Conceptual Options Study* report does not specify whether the PAF Pad will be subject to ingress from external runoff or flooding. An assessment of the potential impacts resulting from such ingress should be conducted and provided. Any existing or proposed structures intended/designed to mitigate flood impacts should be classified as levees. Information must be provided to address the CCA requirements and hydraulic performance criteria specified in Sections 2.3.1.2 and 2.3.2 of the Manual for these structures.	Provide an assessment of potential impacts on the PAF Pad caused by ingress from external runoff or flooding, including measures to minimise risks associated with external runoff or flooding. Additionally, provide information addressing the CCA requirements and hydraulic performance criteria specified in Sections 2.3.1.2 and 2.3.2 of the Manual of structures associated with the PAF Pad.
9	Appendix A: Dugald River Mine Tailings Storage Facility Stage 3 Concept Design, ATC Williams (17 October 2023), Revision A	On 9 July 2025, the department contacted Dale Ross of ATC Williams regarding a liner failure incident involving a dam that used a similar bituminous geomembrane (BGM) liner system to that used at the Dugald River Mine TSF. The failure led to the uncontrolled release of contaminated water. Mr Ross indicated that he would review the incident in the context of the Dugald	Evaluate the potential for a similar failure mode of the BGM liner system to occur at Dugald River. If necessary, provide further details on additional control measures needed to ensure the structural integrity of the liner system, supported by

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		River liner system. The department expects ATC Williams to evaluate the potential for a similar failure mode that could occur at Dugald River, and if so, provide recommendations for implementing appropriate control measures during design, construction, or operational phases.	technical justifications.
10	Appendix A: Dugald River Mine Tailings Storage Facility Stage 3 Concept Design, ATC Williams (17 October 2023), Revision A	The proposed 9-metre dam raise, increasing the TSF to a final height of 37 metres, is expected to increase groundwater pressure in the surrounding area. This elevation in pressure increases the potential for environmental harm due to seepage. However, Appendix A does not provide sufficient information to assess the potential level of environmental harm that may result from TSF seepage. An assessment of the phreatic surface for the TSF, both for the existing conditions and after the raise with water at full level must be provided. Additional details are required to justify the assigned consequence category concerning seepage. This assessment should account for seepage in all directions and include supporting data and analysis to evaluate potential impacts.	Provide further information to assess the potential level of environmental harm resulting from seepage. This should include data on seepage pathways, rates, groundwater flow modelling, potential impacts on surrounding environments, and proposed mitigation measures to minimise risk. Evaluate the adequacy of the current groundwater bore network and monitoring regime in effectively detecting and monitoring seepage, including an analysis of the appropriateness of the established groundwater limits.