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: Whitehaven Blackwater Pty Ltd
Level 28, 259 George Street
Sydney, NSW 2000

By email transmission only

Email: Bdillon@whitehavencoal.com.au

ATTN: Brendan Dillon, Manager - Approvals

Our reference: EPML00717813, A-EA-AMD-101083251

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

Application details

The amendment application for a site-specific environmental authority (EA) EPML00717813 for the Blackwater Mine (BWM) was received by the administering authority on **21 April 2026**.

The application reference number is: **A-EA-AMD-101083251**

Land description: ML1759, ML1773, ML1907, ML1760, ML1792, ML70091, ML1761, ML1800, ML70103, ML1762, ML1812, ML70104, ML1767, ML1829, ML70139, ML1771, ML1860, ML70167, ML1772, ML1862, ML70329

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 provided **Attachment 1 –Additional information required to decide the EA amendment application for the Blackwater North Extension Project**

Actions

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

(a) all of the information requested; or

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(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.

Should the information request require an EIS process or applicant to submit a progressive rehabilitation and closure (PRC) plan then it must be completed and submitted.

A response to the information requested must be provided by 10 December 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 CRMining@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.

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.

Review and appeal rights

You may apply to the administering authority for a review of this decision within 10 business days after receiving this notice. Information about your review rights is attached to this notice or search ‘DETSI Internal review and appeals’ at business.qld.gov.au. This information is guidance only and you may have other legal rights and obligations.

Should you have any questions about the notice, please contact Business Centre Coal using the details provided below.



Signature

10 June 2026

Date

Ben Byrd

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

Enquiries:

Business Centre Coal
PO Box 3028, Emerald QLD 4720
Phone: (07) 4987 9320
Email: CRMining@detsi.qld.gov.au

Attachments

Information sheet: Internal review and appeals (ESR/2015/1742)

Attachment 1: **Additional information required to decide the EA amendment application for the Blackwater North Extension Project**

Attachment 1: Additional information required to decide the EA amendment application for the Blackwater North Extension Project

Item	Matter	Information Requested
	General	
1	**Spatial data** The mapping included in the application provides useful contextual information, the department requires the associated spatial data files to enable a more detailed assessment of the proposed disturbance areas and associated environmental values. In particular, the provision of spatial datasets will allow the department to accurately interrogate and zoom into areas that are not clearly discernible within the PDF maps and to undertake spatial analysis relevant to the assessment of the application.	The spatial information should be submitted in the prescribed format outlined in the guideline, including appropriate projection information and metadata where applicable. Refer to the department's Spatial Information Submission Guideline available (ESR/2018/4337) Provide spatial files related to Figure 1-7, 2-5, 2-19, 4-8, 4-9 of the supporting document and Figure 8.28 of Appendix B.
2	**PRCP** Section 2.12 of supporting document states: '*Whitehaven Blackwater is developing a PRCP for the Project in accordance with section 126B and 126C of the EP Act'*. The rehabilitation strategy for the Blackwater North Extension Project (the Project) is required to be assessed and has not been provided. The rehabilitation requirements for the BWM are now included in the approved PRCP schedule dated 19 May 2026, which is based on the PRC plan (V2). Therefore, amendments will be required to be made to the PRC plan and PRCP schedule to include the rehabilitation outcomes for the land subject to the Project.	Submit a written request to change the EA amendment application currently under assessment to include the proposed rehabilitation activities related to the Project. The change request must be supported by a joint EA and PRCP schedule amendment application form (ESR/2019/4956), a revised PRC plan and PRCP schedule. Alternatively, provide a proposed PRC plan and PRCP schedule in response to the IR pursuant to section 143A of the EP Act. In this case, DETSI will have 10bd to issue an IR about the submitted PRCP.

Item	Matter	Information Requested
3	**Sediment basins** Supporting document Section 4.2.2 and Table ES-1 mentions that new sediment basins would be constructed to capture sediment laden runoff and allow sediment to settle before water is released to the environment. Appendix B Section 5.1 states: *'Erosion and Sediment Control: The SWMS includes sediment basins to capture sediment laden runoff from the disturbed areas and provide an area where settlement of suspended sediment in runoff can occur (Whitehaven, 2024). There are no additional sediment basins proposed as part of the Project.'* The two statements appear to conflict regarding whether new sediment basins are proposed as part of the Project.	To ensure clear and accurate understanding of the proposed erosion and sediment control measures, provide clarification on the following: a) Clarify if new sediment basins are proposed to be constructed as part of the Project. b) If no new sediment basins are proposed, provide details on how the Project intends to manage sediment-laden runoff effectively in areas with a high potential for sediment generation.
	Air	
4	Section 4.7.3 of the supporting document mentions that BWM would continue to implement air quality management controls as per the current *BWM Plan: Air Emissions Management Plan*. A review of the air quality management controls is necessary to assess the specific measures and controls and its effectiveness in managing air quality for receptors.	Provide a copy of the latest version of *BWM Plan: Air Emissions Management Plan*.
	Noise	
5	Predictive noise modelling in Appendix H Section 5.3 has indicated that residual exceedances were identified at 8 privately-owned receptors which is proposed to be managed via commercial noise agreements (i.e. 'Alternative Arrangements' under EA EPML00717813) with Whitehaven Blackwater. While it is acknowledged that these agreements may be commercial and confidential in nature, further information is required regarding any mitigation or control measures that will be implemented at the identified sensitive receptors location. This information is necessary to ensure that appropriate measures are in place to minimise potential impacts on human health and wellbeing resulting from the predicted noise exceedances.	Provide details of any mitigation/control measures proposed to be implemented to minimise the impact of noise and blast exceedances at the identified sensitive receptor locations.

	Waste management	
6	Appendix I, Table 4-4 shows the geochemical classification based on sample number. The alkaline to highly alkaline nature of the spoil (fresh and weathered (Figure 4-18)) will need to be considered if this material is to be used in rehabilitation as rock armour, growth media/and or cover system design.	Provide actual volumes of material corresponding to the classification in Appendix I table 4-4.
7	Appendix I Section 2.7.4 of the supporting document mentions that upon decommissioning, the semi-permanent tailings cells would be excavated and assessed for contamination and remediated if required. However, in Appendix I Section 5.4.7, the supporting document states '*the semi-permanent tailings cells used for the Project may require a cover system, details of which would be provided in PRCP Rev 3.'* It is unclear if the semi-permanent tailings cells would be removed or retained with a cover system on closure. Appendix I Section 4.10 states the risk rating of the tailings to be moderate to moderate-high for fresh tailings, and high potential for generating acid drainage (AD) for the aged tailings. Therefore, the semi-permanent tailings cells should be classed as a high risk landform and the appropriate corresponding cover system designed to minimise oxidation and transport of the tailings materials. PRCP Rev 3 has not been submitted as part of the amendment application. Therefore, an assessment of the long-term stability of the semi-permanent tailings cells cannot be made.	(a) Clarify if the semi-permanent tailings cells would be removed or be retained with a cover system on closure. (b) If a cover system is planned, then provide a conceptual cover system design. (c) Address the suitability of materials for use in a cover design.

8	Section 4.9 of Appendix I presents the results of kinetic column leaching studies undertaken to assess the geochemical and weathering behaviour of tailings over a 52 week period. Leachate generated during kinetic testing was analysed for 15 metals and metalloids, with results presented in Figure 4-24. However, Section 4.9 does not include an assessment or comparison of resultant leachate concentrations (representative of potential seepage and drainage from TSF) against the applicable water quality limits and trigger values contained within the EA. Similarly, Appendix I Section 4.6 mentions that tailings liquor will be near neutral to alkaline pH and low soluble metal and metalloid concentrations. However, the liquor is highly saline, with EC values ranging from 2210 to 5410 µS/cm (median 4220 µS/cm) with the dominant cation and anions being Na and Cl and SO_4 with moderate alkalinity of 290-425 mg/L as $CaCO_3$, and essentially all present as bicarbonate alkalinity. Notwithstanding, there is limited discussion regarding contaminants of concern that may remain mobile or become readily available under the anticipated pH and geochemical conditions associated with the TSF liquor and seepage. In particular, the assessment does not adequately address the potential for salinity-related impacts, mobilisation pathways, or the behaviour of dissolved constituents under varying operational and post-closure conditions.	(a) Expand Section 4.9 to address the most likely contaminants of concern (CoC) to be present in drainage/seepage from the TSFs. (b) Discuss whether the predicted seepage and drainage quality from the TSF is likely to exceed EA water quality limits during operations (c) Expand section 4.6 on the most likely CoCs to be readily available under the potential pH/geochemical conditions of all water sources during operation and closure.
9	Section 2.7.4 of the supporting document states '*cells would be constructed of homogeneous clay floor and drains'*. However, it does not provide any specific details regarding the target permeability or the construction methodology of the cell floor. The absence of this information is a significant concern, as the integrity of the cell floor's permeability is critical to minimising the risk of groundwater contamination during the operation of the mine. Without clear specifications or performance criteria for the cell floor, it is not possible to adequately assess whether the proposed design will meet the necessary environmental protection standards.	Provide the following information in relation to semi-permanent tailings cells: (a) target permeability of the clay floor in terms of hydraulic conductivity; (b) construction methodology to achieve and verify the specified permeability, including compaction requirements, quality control measures and testing protocols. (c) proposed measures to ensure long-term integrity of the cell floor under operational conditions.

	Groundwater	
10	Appendix C Section 5.3.2 states that bore MB21 is a Tertiary Sediments bore and uses the bore to demonstrate long-term groundwater level trends in the Tertiary Sediments. The Blackwater Mine PRCP schedule (P-PRCP-100758455) identifies bore MB21 as a Rangal Coal Measures bore and it has previously been demonstrated that this is not Tertiary Sediment bore.	Provide advice as to whether incorrectly identifying bore MB21 as a Tertiary Sediment bore and using it as such within the groundwater modelling has impacted the predictions associated with the Project.
11	Appendix C Section 6.7.2, Figure 6-13 Long term water levels in voids – The predicted water levels in Figure 6-13 do not match those presented in Section 7.3 of Appendix B (Surface Water Assessment) for residual voids R30 and Stewarton South. In Appendix C Figure 6-13 the predicted void water level in R30 after about 200 years is constant at about 142 m AHD. However, in Appendix B-Figure 7.5, the predicted water level oscillated from 140 to 160 m AHD for 1,000 years. Similarly, in Appendix C Figure 6-13, the predicted void water level in Stewarton South after 200 years is fairly constant at about 103 m AHD. In comparison, Appendix B Figure 7.8, the predicted water level oscillated between about 92 and 118 m AHD for 1,000 years.	(a) Provide an explanation for the variations in predicted long term void water levels between Appendix C Figure 6-13 and Appendix B Figure 7.5 and Figure 7.8. (b) Explain what impact this is having on predicted impacts associated with the Project.
12	Appendix C Section 6.7.2, Table 6-4 Final Voids – Equilibrium Water levels and Groundwater Levels (from North to South) - this table provides model predicted groundwater levels approximately 250 m east of each void. It is understood that these are equilibrium, recovered groundwater levels. However, there is no indication as to which layer in the model these groundwater levels relate to and therefore which Hydrostrategraphic unit they relate to. Additionally, in the case of Stewarton South, the groundwater level is 38.45 m above the void water level indicating a strong groundwater gradient back towards the void. However, Figure 6-14 indicates that there are constant outflows from the voids to groundwater. While it is useful to provide a comparison of groundwater levels with void levels, the limitations of selecting a predicted groundwater level at one location adjacent to a void and comparing that groundwater level with the void level should also be explained as a qualification to the information presented in Table 6-4.	(a) Provide advice as to which model layer the groundwater level in Table 6-4 is taken from. (b) Provide qualifications as to the process in Table 6-4 where a groundwater level at one location (and presumably in one model layer) is compared to the final void level.

13	Appendix C Section 6.7.3 Figure 6-19, provides the post-mining water table elevation contours. These are useful but a zoomed in map around the 5 voids of interest to the Project should also be provided. It is noted from Figure 5-36 that the Tertiary Sediments, Rewan Formation, Rangal Coal Measures and the Burngrove Formation are adjacent to the residual voids. To provide confidence that there are no potential outflows from the residual voids to the surrounding groundwater, it is necessary to present equilibrium post mining groundwater elevation contours for each of the formations / Hydrostrategraphic units mentioned above. Similarly, these should be shown for the full lease area and also shown at a scale which zooms in around the Project area, so it is clearly visible as to the predicted groundwater elevations adjacent to each of the 5 voids of interest. This information will provide confidence in sink/source predictions.	(a) Provide a zoomed in version of the post mining groundwater table contours in the area of the 5 voids of interest in the Project area, clearly showing the location of the 5 voids. (b) Provide predicted groundwater elevation contours for the Tertiary Sediments, Rewan Formation, a representative coal seam of the Rangal Coal Measures and the Burngrove Formation. For each of these items show a zoomed in version of the 5 voids of interest in the Project area, clearly showing the location of the 5 voids.

14	Appendix C Section 5.5.1 and Section 7.7.2 indicated that there are potential Terrestrial Groundwater Dependent Ecosystems (TGDEs) along Taurus Creek and a small section of Sagittarius Creek to the north of the Project. Figure 7-1 provides a useful map at an adequate scale to observe the identified potential TGDEs on Taurus Creek and the predicted drawdown from the Project in Layer 2 of the model which considered potentially to be providing water to the GDEs. Section 7.2.2 dismissed concern about impact to GDEs by stating: *There is some expected drawdown to occur in Layer 2, beneath a small area of the mapped GDEs. The maximum predicted drawdown is 2 meters, and given its limited extent, the overall impact to the potential GDE is expected to be minimal (and within likely natural fluctuations the vegetative species could adapt to).* It is noted that the report suggests there are likely natural fluctuations of groundwater levels in Layer 2 in this area. Figure 7-1 indicates that there is predicted drawdown of up to 2 m in Layer 2 in this area from the Project in addition to any existing natural variation. There is not another figure in this section showing the predicted cumulative impacts of the mining on Layer 2 in this area but other figures in the report at a less useable scale indicate that the cumulative impact of mining including the Project could be as much as 5 m in Layer 2 in this area. A map similar to Figure 7-1 should be provided for cumulative impacts so these predicted impacts in Layer 2 in the area of the GDEs are clear. Furthermore, there is no information on the nature of Layer 2 in this area. There appears to have been no existing drilling and therefore no understanding of strata and saturated depth of the aquifer in this area. It is understood that the average thickness of Layer 2 across the model area is 13.1 m. Section 8.2, Table 8-2 includes two proposed additional monitoring bores in the area of the TGDEs to be drilled to monitor first water struck during drilling. There is no confirmation as to when the proposed bores would be drilled or the locations (map/coordinates) for these bores.	(a) Provide a map of the area similar to Figure 7-1 showing the location of the TGDEs and the predicted cumulative drawdown in Layer 2. (b) Provide additional information on Layer 2 in the area of the TGDEs including the saturated depth or likely saturated depth of the aquifer represented by Layer 2. (c) Discuss the cumulative impacts of natural climatic variation, approved mining and the Project on this saturated aquifer and its likely ability to continue to support the existing TGDEs. (d) Provide more specific information on the timing of installation and location of the two proposed bores to monitor the first water struck in this area.

15	Appendix C Section 8.2, Table 8-2 Monitoring program – proposed bores, shows 5 proposed bores. There are no indicative coordinates shown for these bores or figures provided to demonstrate where they are proposed to be located. In particular, drilling location 4 is said to be east of future mining, which is supported but it is not clear where it is proposed. While maps are provided in Appendix C of non-EA bores currently monitored, there appears to be no proposal to include some of these bores (around the Project area) in the EA, to increase coverage in the EA around the Project area. Existing mine monitoring bores not currently in the EA may assist in understanding the impacts of the Project.	(a) Provide additional detail in regard to the proposed locations of the monitoring bores identified in Appendix C – Table 8-2. (b) Provide advice as to which existing monitoring bores, not currently in the EA, would provide useful information in ongoing monitoring and understanding of the impacts of the Project.
16	There are concerns about how the potential rainfall recharge in various areas and formations is discussed in Appendix C Section 5.3 and how this is linked to the 4 recharge zones detailed in *Appendix B - Groundwater Modelling Technical report* Section 2.6.3 and ultimately the calibrated recharge in Appendix C, Appendix B, Table 3-9. Appendix C, Section 5.3 discusses potential recharge in the Rangal Coal measures and at a few bores in the Burngrove formation. It provides no indication of likely high recharge rates, in fact, it generally points to a likely low recharge rate and makes no mention of the weathered Permian. Identification of Recharge Zones in Appendix C, Appendix B, Figure 2-5 - The weathered Permian zone appears to be roughly identified as the area where the Rangal Coal Measures and Burngrove Formation sub crop or outcrop to the west of the mine area. To the east, the recharge zone identified as regolith appears to be in the area where the Rewan Formation either sub crops or outcrops. The outcropping area of the Tertiary sediments does not appear to contribute to these recharge zones, which warrants further clarification. Calibrated recharge values in Appendix C, Appendix B, Table 3-9 - This table reports a calibrated mean rainfall recharge in the weathered Permian of 3.8% of rainfall. This value is notably higher than the calibrated recharge in any other recharge zone including the spoil (2.8%), weathered Clematis (1.3%), alluvium (0.3%) and regolith (0.1%). This result appears unusual and there is no accompanying discussion to assess whether the values are realistic or consistent with expectations.	(a) Provide additional discussion and supporting information to justify the calibrated recharge rates provided in Table 3-9 including the high recharge rates in the weathered Permian.

17	Appendix C Section 3.4.2, Table 3-7 and Appendix C, Appendix E – Calibrated Hydraulic Conductivity. Inconsistencies in hydraulic conductivity values: The hydraulic conductivity (K) values and ranges presented in Table 3-7 and Appendix E differ. This discrepancy is likely due to factors such as the application of reducing K with depth. However, there is no explanation provided to confirm whether this is the cause of the differences, such as the Kx values for the Rangal Coal Measures in Table 3-7 compared to those in Appendix E. Example of discrepancy: For the Aries seam (Layer 8, Zone 10): Appendix E reports Kx_z10 calibrated ensemble values ranging from 1×10^{-4} to 1.5×10^{-3}. Table 3-7 reports Kx values ranging from 2.3×10^{-5} to 3.4×10^{-4}. Low Kx values for the Aries seam: The Kx values for the Aries seam appear significantly lower compared to the layers above and below it. There is no discussion or explanation provided for this observation. Lack of information on upper and Lower bounds: The report does not appear to include details on the upper and lower bounds adopted for the hydraulic conductivity values across the various layers. It is unclear if this information is provided elsewhere in the report.	(a) Provide clarification and discussion on the differences between the hydraulic conductivity values/ranges presented in Appendix C Section 3.4.2 Table 3-7 and Appendix E, particularly in relation to the calibrated hydraulic conductivity. (b) Confirm and provide details on the upper and lower bounds used during model calibration for the various layers. (c) Explain the potential reasons for the lower Kx values observed for the Aries seam compared to the layers above and below it.
18	Appendix C Section 4.4.2 – This section does not provide predicted drawdown contours in the Rewan Formation. This omission limits the ability to assess the extent and propagation of drawdown within the Rewan Formation. Understanding how drawdown propagates through the Rewan Formation is critical for evaluating the mine's overall impacts. It is also essential for assessing potential vertical impacts on the shallower Hydrostrategraphic units above the Rewan Formation. The absence of this information hinders a comprehensive assessment of the potential groundwater impacts associated with the proposed Project activities.	Provide predicted drawdown contours for the Rewan Formation.

19	There appears to be an inconsistency between the number of landowner bores within 5 km of the Project and the associated predicted impacts as reported in different sections of the documentation: • Appendix C, Section 5.5.3 Table 5-18 identifies two bores. • Appendix C, Appendix B, Section 4.6.3, Table 4-4 identifies 31 bores. The differences between these tables may be attributed to the landholder bore census. However, Appendix C, Appendix B, Section 4.6.3 does not provide any discussion or justification for why Table 4-4 identifies significantly more bores than Table 5-18. Clarification is necessary to ensure consistency and transparency in the assessment of potential impacts on landowner bores.	Provide additional information in Appendix C, Appendix B, Section 4.6.3 to clarify: (a) The reason for the discrepancy in the number of landowner bores identified in Table 4-4 compared to Table 5-18. (b) Whether the differences are driven by the Landholder Bore Census or other factors. (c) How these differences influence the assessment of predicted impacts on landowner bores within 5 km of the project.
20	Appendix C Section 6.4 Peer review – this section references a peer review. However, Appendix C does not provide any details about who conducted the per review. A copy of the peer review report has not been included with the application.	Provide the following additional information related to Appendix C Section 4.6: (a) Details of the individual(s) or organisation(s) who conducted the peer review, including their qualifications and expertise. (b) A copy of the peer review report referenced in Appendix C Section 6.4.
21	Appendix C Section 6.4 – This section states: *The predicted mine inflows are sensitive to the timing of when hydraulic conductivity properties are changed. By delaying when the hydraulic properties are changed to the year after mining was completed reduces predicted pit inflows. The reduction in inflows is closer to the observed values; however, it is noted that neither model result has been corrected for evaporation that would occur on the highwalls and pit floors, and as such would be expected to be greater than observed ingress and or values estimated from operational site water balance models.* It is noted that the model used in this assessment was TVM3, but the work described in Section 6.4 suggests that the TVM2 model may provide more realistic predicted inflows although the reference to how evaporation has been dealt with may complicate that issue. There appears to be no final outcome to this discussion. Is it considered that TVM2 would provide more realistic predicted mine inflows.	Provide advice as to whether the TVM2 model discussed in section Appendix C Section 6.4 would provide more realistic predicted mine inflows.

22	Appendix B Section 7.5 of the Surface Water Assessment report states: *Groundwater inflows into the five voids have been provided by the Project groundwater consultants (SLR, 2026). The inflows were provided as a time series over the 1,000 year simulation. Details on the groundwater inflows to the voids are provided in SLR (2026).* Appendix C, Appendix B (groundwater model report) notes that: *Initial predicted groundwater inflows with time to the voids from the groundwater model were incorporated in the initial water balance model.* It also notes: *To avoid iterating many times between the groundwater model and the water balance model before reaching agreement, SLR used an automated process (using python code) that iterates between the groundwater model and the water balance model until a predefined convergence criteria is reached (Xiao et al., 2025).* It is not clear if the process referred to above provided updated predicted groundwater inflow rates to the voids which were then used to provide the predicted void water levels provided in Appendix B (Surface Water Assessment report).	Provide confirmation that the updated predicted groundwater inflow rates obtained from the automated process described in the groundwater model report were used to provide the predicted void water levels provided in Appendix B (Surface Water Assessment report).
	Groundwater quality	
23	**Under representation of bores for the alluvium** The spatial distribution of the existing shallow alluvial monitoring bores appears to be primarily concentrated on the southern side of the EA boundary and does not sufficiently address the Quaternary alluvial deposits in the northernmost and eastern regions of the proposed expansion (refer to Figure 4-1) or the inferred groundwater flow directions toward Blackwater Creek. In contrast, the Rangal Coal Measures, which are deeper hydrogeological units, appear to have comparatively better monitoring coverage, particularly in the northern areas adjacent to the proposed expansion. To improve the representativeness and efficacy of the monitoring network, it is recommended that the EA consider the inclusion of additional shallow alluvial and Rewan group monitoring bores, particularly in the north-eastern expansion where impacts are most likely.	Provide clear rationale for the limited number and spatial distribution of monitoring bores proposed within the Quaternary alluvial and Rewan units, and consider the inclusion of additional monitoring bores in the EA

24	**Clarification of sampling shallow alluvium** Appendix C indicated that the Quaternary and Tertiary alluvial units were intersected by existing monitoring bores in the EA and other supplementary bores are typically dry. However, it is unclear how frequently these units have been monitored to support this assertion, and whether the monitoring program has adequately captured conditions following wet-season recharge events. Notwithstanding this, it is noted that a monthly monitoring frequency is prescribed under the EA for all the groundwater monitoring bores until final contaminant limits are reflected in the EA. More information is required to determine whether the intermittent saturation and any potential episodic groundwater occurrence has been adequately captured.	(a) Confirm whether the prescribed monitoring frequency has been consistently implemented for the Quaternary and Tertiary alluvial units. (b) Assess and confirm if the available dataset reflects monitoring undertaken across a range of seasonal conditions, including periods of rainfall recharge.

25	**Potential risk of mine-affected water to the shallow groundwater systems** Appendix C, Section 5.6 and its subsections states that there are limitations in the characterisation of groundwater conditions and groundwater-surface water interactions in the Quaternary alluvium and Tertiary sediments/regolith (Figure 4-1, 5-2 and 5-3). It is specifically noted that groundwater data are scarce, alluvial units are discontinuous, and these units were frequently unsaturated (dry) during the monitoring process. However, the study also suggests that they may become intermittently saturated following rainfall events. Under such conditions, it is understood that groundwater flow is expected to broadly follow topographic gradients (i.e. northward at North Blackwater and south-westward at South Blackwater). There is limited spatial coverage of groundwater quality monitoring within the shallow Quaternary alluvial and Rewan units, particular in the regions of the proposed Project where new potential contaminant sources like the semi-permanent tailings storage facility will be constructed. Clarification is required on how the monitoring program will detect and study the potential migration of impacted water within shallow alluvial systems.	(a) Provide additional information on the potential risks posed by the migration of mine activity-affected water to shallow Quaternary alluvial and Rewan group aquifers, focussing on potential for contamination from the semi-permanent tailing cells and in-pit waste rock emplacement areas, particularly during the operational phase of the proposed Project. (b) Include consideration of risk pathways and explain how the monitoring network has been designed to detect and manage these risks, including bore placement (location and depth) and monitoring frequency. Include particular consideration for transient wet-season conditions when there is an increased potential for lateral groundwater migration, posing a greater risk of migration of contaminants to sensitive receptors such as groundwater-dependent ecosystems (GDEs), particularly the northern and eastern extents of the Project area where potential groundwater movement toward Blackwater Creek is anticipated. (c) Detailed information is required on potential groundwater risk sources associated with the proposed Project during operations phase, including the semi-permanent tailings storage facility. Include: i. precise location of these facilities ii. design characteristics iii. proximity to sensitive receptors. iv. specific consideration for transient wet-season conditions, when there is an increased likelihood of lateral groundwater migration. This is particularly important for assessing risks to sensitive receptors such as groundwater-dependent ecosystems (GDEs), especially in

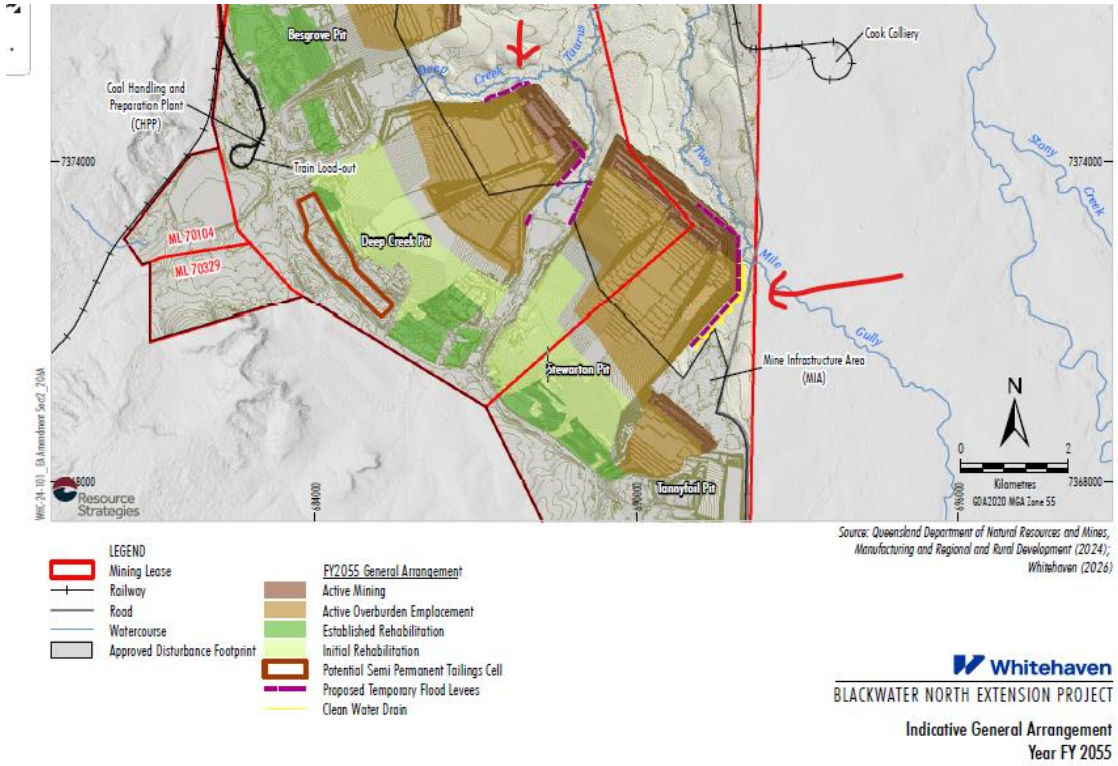
		the northern and eastern extents of the project area where groundwater movement toward Blackwater Creek is anticipated.
26	**Continuity in the groundwater quality monitoring program** Appendix C, Figure 5-1 suggests one of the bores (BWM_MB03_01) in the groundwater monitoring network is located within or near the active mine footprint and could be directly impacted by the planned expansion operations. It is unclear how the proponent intends to ensure continuity of monitoring data in any of the bores in the current monitoring network that may be impacted by the proposed expansion.	To address the continuity of the monitoring the following information is required: (a) Identify any monitoring bores within the EA or groundwater monitoring network that may be impacted from the expansion activities. (b) Propose appropriate replacement bores ensuring they target similar water-bearing units. (c) Provide a plan to minimise disruptions to data continuity, particularly for bores critical to compliance monitoring or those located in areas of high environmental sensitivity.
27	**Suitability of the new bores for monitoring the groundwater quality** Five additional bores are proposed in Appendix C, Table 4-7. There is insufficient information to evaluate their suitability. The absence of key information, including geographic coordinates, screened intervals, and bore depths, limits the ability to determine whether these bores will be appropriately located to monitor the relevant hydrogeological units and detect potential impacts over time. The proposed monitoring bores should adhere to the prescribed monitoring requirements in the EA, which include the implementation of monthly monitoring until a sufficient dataset is available to establish contaminant limits. Around 2.25 years (27 months) for data from a quarterly monitoring is recommended in the EA for any new compliance bores proposed after the year 2024. In addition, a comprehensive plan for the development and submission of groundwater level and contaminant limits in accordance with Table I2 of the EA within the designated timeframe of 27 months (or earlier, if necessary, based on data stability) should be considered.	(a) Further details are required regarding the proposed additional five monitoring bores, specifically: ○ the design, location (spatial co-ordinates); ○ monitoring parameters; ○ monitoring frequency; ○ the rational for their placement and how they address gaps in the existing monitoring network. (b) Explain how the proposed bores will mitigate risks and complement the groundwater monitoring requirements in the existing EA.

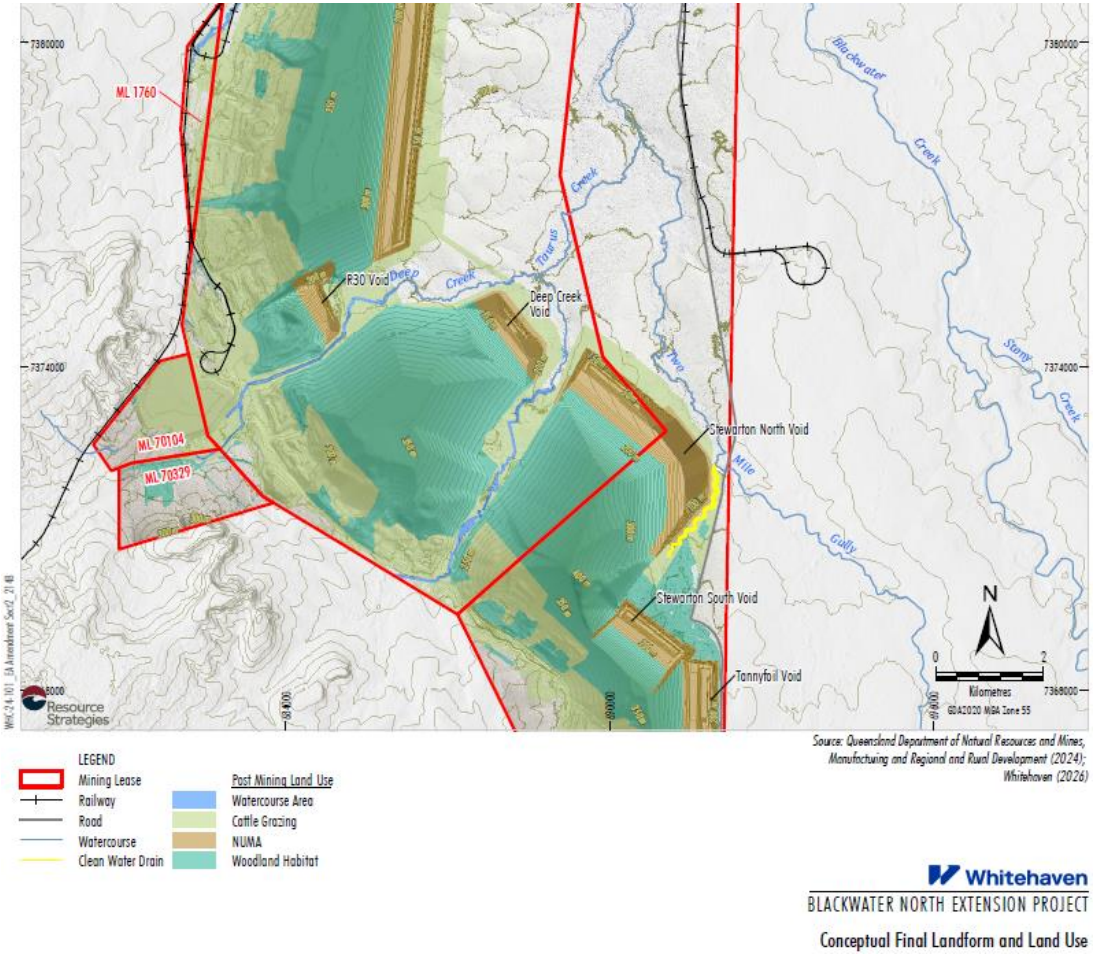
	Surface water	
28	There are no proposed changes to release infrastructure and no proposed changes to the currently approved controlled release conditioning in the EA. Appendix B, Section 6.2.4.2 mentions that the Project is expected to increase the controlled release volume requirements up to 20% (110-130 ML/year). A revision of the receiving environment risk assessment (including an assessment of cumulative impacts) and a review of the release conditioning in the EA to ensure the protection of all receiving environmental values is required. WRM's assessment does not demonstrate that a larger volume of water released with an EC up to 10,000 µS/cm as per the current EA conditioning and current Water Management Plan will be appropriately diluted in the receiving environment to meet relevant water quality objectives protective of all Environmental Values (EVs). This evaluation requires defining proposed dilution rates, based on minimum receiving environment flow and maximum release rates to demonstrate on-site water management practices can achieve the protection of EVs. This has not been provided. The "Model water conditions for coal mines in the Fitzroy basin" (DESI 2015) were specifically designed to support coal mines in defining release conditions for different flow regimes. These contemporary guidelines apply to any EA amendments involving a change related to surface water releases, including volume. It is critical to define representative flow conditions and proposed dilution targets in order to complete the risk assessment. DETSI recommends that the example table provided with this notice is adopted. While the compliance point in Blackwater Creek is located 15km downstream from releases, the risk assessment is required to assess water quality at the point of discharge after mixing in the receiving environment, ensuring all EVs are protected in-stream. The compliance location on the EA is administrative and does not justify the exclusion of 15 km of river from the risk assessment.	(a) Propose maximum release rates and indicate if multiple release points may be releasing simultaneously. (b) Demonstrate that sufficient dilution will be achieved at all times based on maximum release rates and minimum receiving environment flow proposed to ensure relevant water quality objectives (WQOs) will be met (consider WQO adjustments required in item 28 below). (c) Describe the current and proposed strategy to manage the tail flow of releases (EA Condition F10) to ensure environmental values are protected at all times during this critical period. For any flow conditions where the risk assessment identifies that current EA conditions alone cannot achieve protective levels, describe the water management strategies in place to ensure these protective levels are met. These strategies should include flow-specific release limits that will ensure water quality objectives can be met in the receiving environment, as per example provided in **Error! Reference source not found.** of this notice

29	Water quality objectives (WQOs) adopted in Appendix B are not protective of the receiving environment values. Appendix B Table 3.2 has adopted the receiving environment EC trigger level of 2000 µS/cm (based on a toxicity study by DSITIA (2012) as a WQO. The most recent dataset summarised in Table 3.5 of Appendix B, demonstrates that the EC measured in local creeks (80th percentiles between 174 and 374 µS/cm, including locations downstream from releases) is generally aligned with the local EPP water quality objective of 310 µS/cm for the Mackenzie River catchment. The 2024-25 FRREMP results also confirm that the 80th percentile of data in Blackwater Creek generally meet this objective. The WQO adopted to assess the potential impact of the release should be relevant to the local conditions. For parameters other than EC, the assessment provided by WRM in Appendix B Table 3.2 adopted in-stream WQO corresponding to release water quality triggers at the “end-of-pipe” in the EA (EA Table F3). This approach is not appropriate because the release trigger values apply to undiluted release water, as opposed to the receiving environment water quality which is measured after mixing of the release with the receiving environment water. Many of these values are also not reflective of the receiving environment background concentrations (Appendix B Table 3.5) and largely exceed the default ANZG (2018) guideline values for the protection of aquatic ecosystems. WQOs adopted for ammonia (1000 µg/L) and nitrate (7600 µg/L) exceed that of total nitrogen (TN, 775 µg/L, corresponding to the EPP WQO for the Mackenzie River sub-basin). Given ammonia and nitrate are two constituents of TN, the WQOs adopted for ammonia and nitrate are scientifically irrelevant.	(a) Revise the selection of WQOs to ensure they are protective of environmental values identified and relevant to the Project location. If site-specific water quality objectives are required, provide appropriate justification for the source of the value adopted, as per methods provided in DES (2022) *Guideline: Deciding aquatic ecosystem indicators and local water quality guidelines under the Environmental Protection (Water and Wetland Biodiversity) Policy 2019*. (b) Indicate the potential source of nutrients (total nitrogen, total phosphorous, ammonia, nitrate) from the current and proposed operations.

30	Appendix B, Appendix C Table 4.3, mentions a loss of median annual discharge volume of 73.9 ML/a. It is not clear if this loss includes the proposed controlled releases estimated at up to 110-130 ML/a during median climatic conditions. While the natural catchment runoff volume is reduced, it cannot be inferred that the proposed increased volumes of controlled releases will not contribute any additional total suspended solids (TSS). Data presented in Appendix B, Appendix C Table 3.1 (Memorandum dated 17 April 2026) suggest higher TSS concentrations downstream from existing activities, compared with upstream monitoring locations, suggesting contributions from BWM. Section 3.3.3 mentions that higher TSS concentrations "*may be due to existing mining activities (excluding the Action/Project) but is also likely due to the larger catchments contributing runoff to these downstream sites*". The potential increased TSS contributions from the proposed releases should be quantified to address section 41AA of the EP Regulation. Section 4.4.2 indicates that these releases will only occur during "*elevated, event-driven flows characterised by increased water levels, higher velocities and short-duration runoff pulses which would likely include natural turbidity and sediment transport reflecting storm conditions"*, however the assessment is about annual TSS loads to the reef rather than concentrations. The most up-to-date Water Management Plan was not submitted with the application. Appendix B Section 4.5.2 states "*The Blackwater Mine Water Management Plan (WMP) by Whitehaven (2025), outlines the BWM's ESC 'implementation plan*'" and "*Rehabilitation and/or installation of appropriate erosion and sediment controls is planned to be completed over significant areas of the BWM by June 2031*."	(a) Provide the most updated Water Management Plan and Erosion and Sediment Control Plan; (b) Provide further information on the potential impacts from existing mine activities (sediment dams and/or controlled releases) to date on the receiving environment surface water dataset presented in the WRM Memo. Provide specific discussion about the potential source of the higher TSS in Taurus Creek, Two Mile Creek, and downstream Blackwater Creek compared with upstream locations based on release data. (c) Demonstrate how the Project will not worsen TSS concentrations in the receiving environment, including how monitoring of the status of TSS will be achieved to demonstrate ongoing protection, such that the project will not result in a ***residual impact*** as per s. 41AA of the EP Regulation. (d) Indicate how the efficacy of erosion and sediment controls in place (e.g. sediment dams) is monitored. Specify locations and frequency of monitoring.
31	Appendix B Section 6.2.4.1 states that "*Controlled releases are expected to be required in very wet (5th percentile), wet (10th percentile) and median climatic conditions, as well as dry (90th percentile) climatic conditions in some years*". Releases required during dry conditions pose a potential high risk if appropriate flow conditions are not met to provide a window of opportunity to release while ensuring appropriate minimum dilution can be achieved.	Provide further information on the requirements to release during "dry conditions" and outline how this will be managed. Include details on ensuring adequate dilution in the receiving environment and the potential capacity to store any excess volume.

32	Appendix B Figures 4.4 to 4.6, not all release points are represented on the Surface Water Management System (SWMS) schematics of the existing operations presented in Appendix B. Based on the information provided, it is understood that the Project-related mine affected water (MAW) would be released at currently authorised release points RP2 (via "New Taurus Creek Dam", NTCD), RP3 (via "New Deep Creek Dam", NDCD) and RP4 (via "Tannyfoil Dam", TFD). Interpretation of the SWMS schematics suggests that there is the potential for MAW to be redirected to other dams across the site that are connected to other release points. While we note that release points in Burngrove Creek, Sirius Creek and Rockland Creek are not located within the Project area, it is unclear if the Project may potentially redirect MAW to release points in these areas.	(a) Confirm all release points with the potential to be releasing mine-affected water associated with the Project. (b) Confirm MAW associated with the Project does not have the potential to be transferred to other storages associated with different release points.
33	Appendix B Section 10.6 states that "*The proposed release strategy to Blackwater Creek and the Mackenzie River is informed by existing release conditions applied to nearby operating coal mines. These conditions are embedded within a broader strategic framework designed to manage the cumulative impacts of water releases and mining activities. As such, the cumulative effects on surface water quality and associated EVs are expected to be negligible*." Potential for cumulative impact must be considered as part of the risk assessment of the Project. There currently may not be any assimilative capacity for the system in Blackwater Creek due to discharges permitted from nearby mines.	(a) Describe the "broader strategic framework" in place and how it addresses the contemporary requirements defined in '*Model water conditions for coal mines in the Fitzroy basin'* (DESI 2015). (b) Describe current and proposed management strategies implemented by Whitehaven to minimise cumulative impacts associated with the Project.
34	The Project footprint overlaps with Sagittarius Creek; however, this creek does not have a downstream monitoring point and is not included as part of the FRREMP. There are no stream gauging stations within the Sagittarius Creek catchment.	Indicate how potential influence from the proposed activities to Sagittarius Creek is proposed to be managed and monitored.

	Flooding	
35	In section 2.3 Figure 2-5 of the supporting document there appears to be limited separation between the pit, levee and watercourses which raises constructability and failure-pathway concerns. The levees would need to be constructed with adequate footprint, freeboard and erosion protection. 	(a) Clarify whether the proposed pit, levee and related works would intrude into *Water Act 2000* watercourse limits and if a RPP (Riverine Protection Permit) would be required to undertake construction of the proposed pit and levee. (b) Demonstrate that there is sufficient physical space to construct and maintain levees, given the proximity of the proposed pit extensions to watercourses. (c) Provide a levee conceptual design to demonstrate consistency with ESR/2016/1933, including crest levels, freeboard, footprint, stability, erosion/scour protection, overtopping and breach pathways, and consequence category assessment including impacts on voids where applicable.
36	Section 2.8.3 of the supporting document states: '*The temporary flood protection levees (in place during mining) adjacent to the R30, Deep Creek and Stewarton North pits would be removed such that the rehabilitated out-of-pit waste rock areas would prevent floodwater from entering the voids'.* Additional information on the pit rehabilitation and final landform is required to assess how flood risk will be managed once the levees are removed.	Demonstrate how flood risks will be managed once the temporary levees adjacent to *R30, Deep Creek and Stewarton North* pits are removed.

37	Figure 2-19 of the supporting document indicate that the proposed final void extensions are within the 0.1% AEP floodplain, including the floodplain of Two Mile Gully (order 4 watercourse).  Section **126D (3)** of the *Environmental Protection Act 1994 (Qld)* states: "*Despite subsection (2), if land the subject of the proposed PRCP schedule will contain a void situated wholly or partly in a flood plain, the schedule must provide for rehabilitation of the land to a stable condition.*"	(a) Clarify the final closure geometry of the final void. (b) Clarify how the proposed pit extensions will be backfilled or reshaped. There cannot be a NUMA in the floodplain. (c) Demonstrate how any void area located wholly or partly within the 0.1% AEP floodplain will satisfy Section 126D (3) of the EP Act.

	Appendix B Section 8.8 does not demonstrate that the proposed pit extensions within the 0.1% AEP floodplain will be fully backfilled after removal of the operational levees. Appendix B indicates that five residual voids will remain as NUMAs, with only limited backfilling.	
	Ecology	
38	Appendix D Section 4.1.5 has identified potential terrestrial groundwater dependent ecosystems (TGDEs) like *E.coolabah* in the vicinity of Taurus Creek. These ecosystems, while likely to be facultative GDEs, may serve as critical refugia for koalas and other wildlife during periods of heat and water stress. Given the anticipated reduction in the catchment area of Taurus Creek, there is potential for downstream ecosystems to be adversely impacted, which could diminish their ecological function as wildlife refugia. It is necessary to ensure that potential impacts on TDGEs are adequately managed and that ecological values in these areas are maintained.	(a) Outline monitoring measures to assess potential impact on TGDEs associated with Taurus Creek. (b) Propose mitigation measures to address any identified impacts on TGDE's, ensuring the preservation of their role as refugia for fauna during periods of environmental stress.
39	Appendix E Section 4.2.3 Table 14 gives the habitat scores for riverine survey sites for pre-wet season. Survey site R10, R11 and R12 are not shown. Survey site R1 is repeated 3 times. This could possibly be a clerical error.	Clarify if survey sites R10, R11 and R12 are included in Table 14 in Appendix E Section 4.2.3.
40	Appendix D Section 10 indicates that residual impacts on MNES and MSES would be offset in accordance with the EPBC Act Environmental Offsets Policy and Queensland Environmental Offset Policy. However, a demonstration of offset feasibility or conceptual proposed offset approach, whether land-based or financial settlement has not been discussed.	Discuss biodiversity offset measures/strategy and demonstrate offset deliverability.

	Greenhouse Gas emission	
41	**Methodology for estimating emissions from land clearing** Appendix G, Section 5.2.1. mentions that the Carbon Gauge Tool Guideline developed by the Transport Authorities Greenhouse Group (TAGG) was used to estimate greenhouse gas (GHG) emissions from land clearing. In general, this simplified model is consistent with the Full Cabon Accounting Model (FullCAM). However, the TAGG model was developed over a decade ago for estimating GHG emissions for road projects, whereas the FullCAM model is used in Australia's National Greenhouse Gas Accounts for the land use, land-use change and forestry sectors. The FullCAM model has undergone significant updates.	(a) Recalculate emissions from land clearing using the FullCAM model. (b) Sufficient information, including methodology, assumptions, input data and model results should be provided.
42	**Negative emissions for the project-only scenario** Several instances of negative emissions are presented for the project-only scenario in Appendix G, Appendix B Table B.3 (see FY29, FY65 and FY73 data in Table B.3.) For example, FY65 (refer to Table A.3), the reported quantities of ROM coal and product coal are both -1.1 Mt, while diesel consumption is still 39,967 kL. However, no clear justification has been provided.	Provide justification for the negative emissions reported in the project-only scenario.
43	**Likely magnitude of impacts** In Appendix G Section 7.2, a comparison has been made between the annual project-only emissions with both Queensland and national emissions reduction targets for 2030 and 2090. However, Section 3.4.2 of the *Queensland GHG Emissions Guideline* (GHG Emissions Guideline) requires a comparison of expected project GHG emissions with the remaining global, national, and state emissions budgets for medium to high emitters. These emissions budgets are cumulative. Notably, the project has a long operational phase (FY27-FY93), extending well beyond 2050.	Provide a comparison of expected project GHG emissions with the remaining global, national, and state emissions budgets. Consider including total project-only emissions in this assessment.

44	**Carbon offsets** Appendix G Chart 2 presents the facility's Safeguard Mechanism baseline (i.e. Scope 1 emissions reduction targets) and emissions projections. A significant volume of carbon offsets may be required to meet Safeguard obligations. However, information regarding carbon offset management (e.g. market availability and sources) has not been provided. According to the GHG Emissions Guideline, details about offset should be provided in the GHG emissions reduction program and offsets should be sourced in Queensland where possible. Applications proposing to offset outside of Queensland must be justified by a report prepared by an appropriately qualified person outlining why offsets are not available within Queensland. Similarly, proposals to offset more than 30% of emissions must be supported by a report prepared by an appropriately qualified person outlining why avoidance, reduction and substitution measures cannot be utilised.	(a) Revise Appendix G Table 8, Safeguard Baseline for FY2047, FY2048 and FY2049 in accordance with the National Greenhouse and Energy Reporting (Safeguard Mechanism) Rule 2015. (b) Provide a discussion on carbon offset management, availability of offsets, timing of offsets, estimated offset volumes and how offset will be verified or implemented.
45	**Safeguard baseline target** Appendix G Table 8, the anticipated safeguard baseline forecast for FY2047, FY2048 and FY2049 should be 100,000 t CO_2-e in accordance with the National Greenhouse and Energy Reporting (Safeguard Mechanism) Rule 2015.	Update Appendix G Table 8 anticipated safeguard baseline forecast values for FY2047, FY2048 and FY2049 in accordance with the National Greenhouse and Energy Reporting (Safeguard Mechanism) Rule 2015.

Table 1 Example of table required as part of the Fitzroy Model condition to define "Mine Affected Water Release During Flow Events"

Receiving waters/ stream	**Release point (RP)**	**Gauging station**	**Gauging station latitude (decimal degree, GDA94)**	**Gauging station longitude (decimal degree, GDA94)**	**Receiving water flow recording frequency**	**Receiving water flow criteria for discharge (m3/s)**	**Maximum release rate (for all combined RP flows)**	**Electrical conductivity and sulfate release limits**
Blackwater Creek	RP2, RP3, RP11, RP12, RP13	Gauging station 2	693978	7384545	Continuous (minimum daily)	**Low flow** <insert value> m3/s for a period of *<insert number of days>* days after natural flow events that exceed <insert value> m3/s	<insert value> m3/s	Electrical conductivity (µS/cm): Default is 310 µS/cm (*corresponding to the EPP water quality objective for the Mackenzie River sub-basin waters during baseflow)* *Alternative EC value can be proposed by proponent corresponding to the 75th percentile of long-term background reference data collected during natural flow and during periods unimpacted by any upstream releases from other existing mine activities (for mine release dates to exclude, refer to DETSI website). Raw data demonstrating calculations is required with the application. The EA trigger value of 2000 µS/cm based on toxicity studies is not appropriate as a release objective during no flow.* Sulfate: 250 mg/L
						Medium flow <insert value> m3/s	<insert value> m3/s	Electrical conductivity (µS/cm): <insert value> µS/cm Sulfate: <insert value> mg/L
						High flow <insert value> m3/s	<insert value> m3/s	Electrical conductivity (µS/cm): <insert value> µS/cm Sulfate: <insert value> mg/L

This table is an example. The proponent is required to propose flow-specific conditions aligned with the Fitzroy Model Conditions (DESI 2015) for all creeks nominated to receive releases from Blackwater Mine. Text in blue indicate DETSI advice as part of this RFI. Refer to DESI Guideline - Resource activity – mining - Model water conditions for coal mines in the Fitzroy basin (ESR/2015/1561, formerly EM288; Version 3.03) for further information and guidance.