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 and PRCP schedule.*

To: QUEENSLAND COKING COAL PTY LTD; QLD Coal Aust No.1 Pty Ltd
c/o QUEENSLAND COKING COAL PTY LD
Suite 2, Level 6
12 Creek Street
BRISBANE CITY QLD 4000

ATTN: Dave Moss – General Manager – METServe

Email: dave.moss@metserve.com.au

Your reference: EA0002912

Our reference: C-EA-100178168

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

1. Application details

The amendment application for a site-specific environmental authority and PRCP schedule was received by the administering authority on 14 December 2021.

The application reference number is: **A-EA-AMD-100175487**

Land description: ML700060

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 provided below in **Attachment 1: Information Requested (Table)** of 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.

Should the information request require an 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 **1 December 2022** (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.

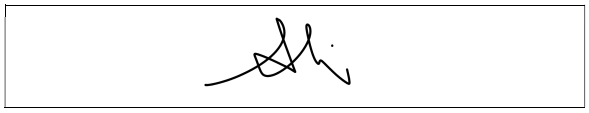
The response to this information request or a request to extend the information response period can be submitted to the administering authority by email to CRMining@des.qld.gov.au.

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.

4. Human rights

A human rights assessment was carried out in relation to this decision/action and it was determined that no human rights are engaged by the decision.

If you require more information, please contact Marijke Schuurs on the telephone number listed below.



Signature

1 March 2022

Date

Alison Cummings
Department of Environment and Science
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@des.qld.gov.au

Attachments

Attachment 1: Information Requested (Table)

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Item	Relevant Section of Document (supporting information document, proposed PRC plan, PRCP schedule and/or supporting information appendix)	Matter	Information Requested
EA Amendment Application Supporting Information document			
CHPP & Rail Amendment Supporting Information for Application to Amend EA0002912 for the Vulcan Coal Mine, December 2021			
1	Section 3 Proposed Amendment Section 5.7.3 Mitigation Measures (Surface Water)	Figure 2 'Site Layout' in Section 3 includes the infrastructure proposed by this amendment application. Section 5.7.3 states a flood protection levee will be constructed along the western side of the proposed Jupiter pit. Further information in Appendix 1 of the amendment application clarifies the proposed levee will be a regulated structure and will be constructed in Stage 2 of the mining project when the Jupiter pit has progressed to the north part of the mining lease. It is understood that the proposed levee is an additional structure to the existing flood diversion levee that runs from the north to south of the mining lease. However, the location of the proposed additional flood protection levee is not depicted on Figure 2 Site Layout.	Provide an updated Figure 2 Site Layout that includes a layer for the proposed flood protection levee. Provide the updated figure as a JPEG file. Update any relevant sections of the PRC plan – rehabilitation planning part to be consistent with the response to this item.
2	Section 3.2 CHPP	This section of the supporting information does not address if chemical and hydrocarbon storage is required on site for use in the coal handling and processing plant (CHPP). Section 1.3.2 CHPP of Appendix 1 submitted with the application states the CHPP will include a tailings thickener and a solid bowl centrifuge, indicating	Confirm if chemicals and hydrocarbons will be required for processes in the CHPP and if they are proposed to be stored on site at Vulcan Coal Mine (the project). If so, provide:

		certain chemicals and hydrocarbons might be used in processing coal.	(a) details of what chemicals and hydrocarbons will be stored; (b) the quantities of each chemical or hydrocarbon proposed to be stored; and (c) an assessment of the potential impacts to environmental values (EVs) from chemical and hydrocarbon storage, including how any risks will be mitigated/managed. Update any relevant sections of the PRC plan – rehabilitation planning part to be consistent with the response to this item.
3	Section 4.6 Schedule F: Surface Water	An update to **Table F1: Water Release Locations from Sediment Dams** is proposed to align with revisions to sediment dams in the proposed site layout.	Provide an updated **Table F1: Water Release Locations from Sediment Dams** highlighting the proposed amendments to the table.
4	Section 5.5 Air Quality Section 5.11 Noise and Vibration	The potential impact to the EVs of air and noise (including vibration) from the proposed amendment application has been considered based on assumptions from the technical assessments previously undertaken for the project. Previous air quality impact assessments found the potential impacts to the EVs of air to be negligible and unlikely to cause adverse impacts. The supporting information states for the proposed amendment, “Given the distances to sensitive receptors, significant increase to these results are not anticipated.” Previous noise and vibration impact assessments found that noise, airblast levels and ground vibration from the project would be compliant with noise and vibration criteria under modelled scenarios. The supporting information states for the proposed	Provide updated modelled scenarios that include the additional infrastructure that is proposed by the amendment application. In particular, modelled scenarios must address the potential impacts during the year when air and noise disruption from the project is predicted to be greatest.

		amendment, "Given the extended distances to residential receptors or sensitive commercial receptors, the additional infrastructure and operation proposed at the [project] are considered to be negligible." Further evidence is required to support the assumptions made (and as stated above) about the potential impact to EVs of air and noise in order to satisfy environmental objectives and performance outcomes as per Schedule 8 of the *Environmental Protection Regulation 2019* (EP Reg). The environmental objectives in the EP Reg must be considered as part of the decision on the application as per section 176(2)(a) of the *Environmental Protection Act 1994* (EP Act).	
PRC plan – rehabilitation planning part			
Progressive Rehabilitation and Closure Plan Vulcan Coal Mine, dated 6 December 2021			
5	Section 3 Stakeholder Engagement	Reference is made to an appended Stakeholder Engagement Plan (SEP) that also includes the stakeholder consultation register. However, the SEP has not been attached as an appendix to the PRC plan – rehabilitation planning part and was not submitted as a separate attachment with the amendment application supporting information.	Provide an updated PRC plan – rehabilitation planning part that includes the SEP as an appendix in the same document (PDF). The SEP must demonstrate evidence of stakeholder consultation carried out in relation to this amendment application. Update relevant sections of the PRC plan – rehabilitation planning part to demonstrate how the proposed post-mining land use (PMLU) for rehabilitation of the additional infrastructure is consistent with the outcome of stakeholder consultation, as per section 126C(d)(i) of the EP Act.
6	Section 6.1 Landform Design	There is insufficient information in this section regarding how mixed rejects materials will be disposed of within waste rock dumps. Details of the placement strategy appear to be limited to the following information stated in Section 6.1.4: "All processing waste,	Provide more detail on the mixed rejects placement strategy, which is a key consideration of landform design as per section 3.6.1 of the Guideline— Progressive rehabilitation and closure plans (PRC

		including reject material and dry tailings, will be stored within active waste rock dumps…within waste rock cells."	plans), ESR/2019/4964, dated 17 March 2021 (PRCP guideline). Details of the strategy must include: (a) details of the characteristics of the rejects, e.g. particle size distribution, maximum moisture content; (b) details of where cells will be located within waste rock dumps, e.g. figures of cross sections through waste rock dumps; (c) the depth/s at which mixed rejects will be buried; and (d) how the placement strategy will prevent or minimise potential impacts to ground water and surface water. The proposed waste placement strategy must also be supported by an updated geotechnical assessment and the results of landform evolution modelling as requested by items **10** and **11**.
7	Section 6.1 Landform Design Section 1.3.2 Project Description (Rail Loop)	The rail loop closely follows the Western boundary of the tenure ML700060 and, as sated in Section 1.3.2, a number of areas of cut and fill will be required to achieved the appropriate grade for the rail line. This point is reiterated in Table 6-1 'Cover variations in each rehabilitation area', which states: "deeper incisions may be required for cuttings…subsoils will be replaced during backfilling of any excavations which will resemble conditions previous to subsoil removal." However, the actions that will be required to rehabilitate the rail loop and the final landform design criteria that will be achieved have not been clearly set out. For example, what slope	(a) Update the description of actions required to construct the rail loop in Section 1.3.2, including construction plans, the location of cut and fill areas and cross sections. This information is necessary to support descriptions of the rehabilitation actions required to achieve targeted objectives. (b) Provide more detail about the final landform design of rehabilitated rail loop, including updates

		gradient will be achieved by backfilling the incisions? Figure 6-3 does not make it clear what the final landform elevation of the rail loop area is proposed to be or the topography of backfilled cut batters. Figures 6-4 to 6-6 do not include the rehabilitated rail loop in cross sections.	to Figures 6-3 to 6-6, such as, final landform elevation and cross sections. (c) Provide more information about the rehabilitation actions that will be carried out to achieve the final landform design for the rail loop. Particularly, demonstrate that the gradients specified in rehabilitation milestone criteria for RM3 and RM4 in the PRCP schedule can be achieved for rehabilitation of the land designated for the rail loop. A response to this item must be considered with any response to item **17**.
8	Section 6.1.4 Mine Waste Geochemistry	Section 6.1.4 states that leachate from coal reject sample testing had a mean acid-neutralising capacity and did not have elevated metal concentrations. However, details regarding the sampling regime, analyses conducted and the results of tests have not been presented.	Provide greater detail of the sampling regime and analyses conducted on mine waste geochemistry, and present the results in the PRC plan – rehabilitation planning part. Refer to the paragraph on Waste characterisation in Section 3.6.1 of the PRCP guideline for guidance on information to be included. Consider any response to this item in conjunction with item **12** about technical reports.
9	Section 6.1.6 Drainage and Surface Water Management (Figure 6-7 Final landform 0.1% AEP flood event)	Evidence of potential flood modelling completed and details of the impacts for final landform design is not provided in the PRC plan – rehabilitation planning part. It is noted that there is some evidence of it having been completed as part of Appendix 1, which is the surface water assessment submitted as supporting information for the amendment application. This information is necessary to understand and justify surface water management in the final	Complete flood modelling for the proposed final landform and include the results in the PRC plan – rehabilitation planning part. Refer to the paragraphs about Flooding and Water management in section 3.6.1 of the PRCP guideline for information to be included.

		landform design, and demonstrate the landform in post-closure can meet the definition of a stable condition as per section 111A of the EP Act. Additionally, the final landform in Figure 6-7 'Final landform (post-mining) 0.1% AEP event Flood depths, levels and extent' is not the same as Figure 6-3. It appears to be the same or similar to the landform in the PRC plan – rehabilitation planning part (version dated 22 October 2021) submitted for a previous amendment.	If relevant, update other sections of the PRC plan – rehabilitation planning part to be consistent with any response to this item. Consider any response to this item in conjunction with item **12** about technical reports.
10	Section 6.1.8 Predicted Stability	Limited information has been provided on the geotechnical characteristics of rejects materials disposed of in the waste rock dumps to demonstrate long term stability of the final rehabilitated landform, particularly during scenarios of high rainfall.	Provide an updated geotechnical assessment that considers the proposed changes to the waste rock dumps—the burial of rejects in the in-pit and ex-pit waste rock dumps, and the increase in height of the in-pit dump by 5 to 7 metres. Information provided as part of a response to item **7** may be relevant to any response provided for this item. Update any other relevant sections of the PRC plan – rehabilitation planning part to be consistent with any response to this item.
11		The level of environmental risk will be substantially increased by placing rejects materials in the waste rock dumps. This can be expected to increase the risk of potential environmental contaminants being released should the landform not be in a stable condition post closure. The current slope stability assessment and erosion assessment is no longer sufficient to demonstrate long-term stability of the final landform design. As set out in the paragraphs on Landform design in Section 3.6.1 of the PRCP guideline, landform evolution modelling is required to provide an analysis of future stability of the final landform and justify	Carry out landform evolution modelling, and include the details of the model and results in the PRC plan – rehabilitation planning part. It is recommended that SIBERIA is used to complete the landform evolution modelling. If required, update targeted landform rehabilitation objectives based on the results of the modelling and/or clearly demonstrate how the results support

		that the targeted landform design objectives are reasonable and can be met.	the current targeted landform rehabilitation objectives.
12	General	The PRC plan – rehabilitation planning part refers to a number of technical reports, e.g. Geochemical assessment of waste rock and coal reject prepared by RGS in 2020, Vulcan Complex Project Surface Water Assessment prepared by WRM in 2020. The PRC plan must be a stand-alone document as it is a public facing document.	Provide an updated PRC plan that includes referenced technical reports as attached appendices and/or summarise all key information in the PRC plan – rehabilitation planning part so that the PRC plan is not reliant on information contained in a separate document that is not available on the public register.
PRCP schedule			
VCM_PRCP Schedule_Excel format (MET00297551-002)			
13	RA2	The PMLU for RA2 is, “Low intensity cattle grazing”. However, Section 10 in the PRCP plan – rehabilitation planning part, including Figure 10-1 ‘Final Site Design’, indicate the PMLU for RA2 is not proposed to change from, “Low intensity cattle grazing with habitat for threatened fauna”, which is also what is currently approved. The PRCP schedule in the approved template ESR/2019/4957 (xslx) is considered the statutory document, and therefore, it is considered that the amendment application proposes to change the PMLU for RA2.	Provide an explanation for how the PRC plan – rehabilitation planning part addresses and justifies the proposed change of PMLU for RA2. Alternatively, provide a revised PRCP schedule with an update to RA2 that states the PMLU is, “Low intensity cattle grazing with habitat for threatened fauna”.
14	RA3	Relevant activities of RA3 includes “magazine”. The amendment application supporting information states the explosives magazine will not be established as was previously approved.	Provide an explanation for why “magazine” has been retained as a relevant activity in RA3. Alternatively, provide a revised PRCP schedule with an update to RA3 that does not include “magazine”. Update any relevant sections of the PRC plan – rehabilitation planning part to be consistent with a response to this item, particularly Section 10.

15	RA4 Rehabilitation milestones	The relevant activities under RA4 do not appear to include the flood protection levee (the regulated structure that will be constructed in Stage 2 of operations), nor is it indicated that it has been considered in one of the other rehabilitation areas. Given it has not specifically been considered as part of one of the rehabilitation areas, it is not clear what rehabilitation milestone criteria apply to the levee.	Provide an updated PRCP schedule that: (a) includes the flood protection levee in an existing rehabilitation area or proposed new rehabilitation area; (b) clearly sets out what rehabilitation milestone criteria apply to the levee to achieve the PMLU; and (c) rehabilitation milestone criteria have been revised, where relevant, to include specific rehabilitation criteria for the levee. Update any relevant sections of the PRC plan – rehabilitation planning part to be consistent with the response to this item.
16	RA6	The milestone reference for RA6 is RM9. RM9 is 'Fulfilment of all requirements of the agreement with Isaac Regional Council for the construction and commissioning of Saraji Road'. However, RA6 is for infrastructure as the relevant activities. Therefore, RM10 seems to be the more appropriate reference milestone.	Provide an updated PRCP schedule to include reference to the appropriate rehabilitation milestone for RA6.
17	RM1, RM3 and RM4	The only proposed amendment to rehabilitation milestone criteria is in RM1: "All rail lines removed". The rehabilitation milestone criteria for RM3 and RM4 do not contain specific criteria related to landform development and reshaping/reprofiling and surface preparation for the rail loop.	Consider including additional rehabilitation milestone criteria for the area of land designated for the rail loop from any response to item **7**.

EA Amendment Application Supporting Information document			
Appendix 1 WRM EA Amendment Surface Water Assessment (Appendix 1)			
18	Section 5.5 Section 5.6.1 (Figures 1.2 and 1.3 in Section 1.3)	The area of land designated for the rail loop and the rail load out facility has not been included as a surface water catchment for the purposes of surface water management for the project. It does not appear in the list of surface water catchments defined in section 5.5 or the list of mine affected water catchments defined in section 5.6.1. The rail loop and rail load out facility appear in Figures 1.2 and 1.3. However, it is not clear where surface water runoff from this area will flow as it has not been included as a mine water, surface water or clean water catchment. Section 5.3 states the following as part of the general water management strategy for the project: “separate diverted water from mine affected water to ensure that up-catchment water and mine affected water do not mix wherever practicable”. The assessing officer’s concern is the potential for rainfall runoff to be contaminated with coal dust from the rail loop and under the rail load out facility, and flow into clean water catchments.	(a) Table 5.1 of Appendix 1 defines types of water that are managed within the project area, including the definition of mine affected water. What type of water is surface runoff from the land designated to the rail loop and rail load out facility considered to be in terms of Table 5.1, including the Rail Loop Dam and TLO MWD? (b) If the catchment is not considered mine affected water, provide justification to explain why it does not meet this definition. (c) Provide more information on where surface runoff from the land designated for the rail loop and rail load out facility is proposed to go, and how it will be managed as part of the site water management plan. Update relevant sections and figures of the PRC plan – rehabilitation planning part and Appendix 1 in response to this item, and provide the revised documents as part of the response to this information request. In particular, the water balance model results in Section 7 of Appendix 1 may need to be revised to consider any response to this item.

19	Section 5.9 Post-Closure Conditions Water Management	A statement from the key features of the final landform in Appendix 1 is, “Final landform batter slopes will be 17%”. This contradicts the approved PRCP schedule PRCP_EA0002912_V4 and the proposed PRCP schedule submitted with the application, which states in rehabilitation milestone 3, “Batters have a maximum slope of 15%”.	Confirm the slope gradient proposed for final landform batters of rehabilitation areas. Has the surface water modelling of the proposed final rehabilitated landform been carried out using the assumption that batters have a maximum slope of 15% or 17%?