

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 application for a PRCP schedule.

To: Minerva Coal Pty Ltd
Level 34, Central Plaza One
345 Queen Street
BRISBANE CITY QLD 4000

By email transmission only

Email: ahouston@sojitzblue.com.au

Attention: Ann Houston

Our reference: EPML00668613

Further information is required to assess an application for a PRCP schedule

1. Application details

The application for a PRCP schedule was received by the administering authority on 28 June 2022.

The application reference number is: **C-EATPRCP-100274783**

Land description: ML70145, ML70376

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 attached in **Appendix 1: Additional information required for proposed PRC plan**

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 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 28 February 2023 (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 **the decision is compatible with human rights.**

If you require more information, please contact Luisa Taufatofua on the telephone number listed below.



Signature

23/08/2022

Date

Chris Wake
Department of Environment and Science
Delegate of the administering authority
Environmental Protection Act 1994

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

Appendix 1: Additional information required for proposed PRC plan

Item	Relevant section (proposed PRC plan and/or PRCP Guideline)	Matter	Information Request
Rehabilitation Planning Part			
1	2.5 Existing Rehabilitation	This section provides maps and a brief description of rehabilitation works that have been undertaken to date. It is noted that the schedule indicates advanced progress of rehabilitation activities in many Rehabilitation Areas. Where land has not been progressively certified under the EP Act and appears at an advanced Rehabilitation Milestone in the PRCP Schedule: • provide further information about the rehabilitation methodologies used for each of the areas; • demonstrate how those methodologies reflect the methodologies in the Rehabilitation Planning Part; and • demonstrate how the land achieved the Milestone criteria of the preceding Rehabilitation Milestone.	Provide an updated Rehabilitation Planning Part to include a clear distinction between, and further information about, land that has received progressive certification and land where rehabilitation is ongoing.
2	3.1 Community Consultation Register	Further information is required in relation to the community consultation register in the Rehabilitation Planning Part to ensure it addresses all relevant aspects of the PRCP guideline.	Provide an updated Rehabilitation Planning Part that includes a community consultation register which includes the following details: • Information provided to the community; • Issues raised/discussed by the community; • How issues have been considered; • Decisions/outcomes of engagement; and • Commitments made by the applicant.
3	6.2 Flooding	The Rehabilitation Planning Part contains information about the extent of the Q1000 flood level. However, there is limited information regarding the velocity and depth of flood flow across the site in a range of flood events. There is little information regarding the methodology used to model flooding across the site.	Provide an updated Rehabilitation Planning Part that includes further information about flood depth and velocity during a range of events including Probable Maximum Flood.

			Provide further information regarding the methodology used to generate the flood model including limitations and assumptions.
4	2.6.4 Soils 2.6.5 Land Stability Appendix B Rehabilitation Management Plan 6.3 Soil and Capping Materials	In section 2.6.4 of the Rehabilitation Planning Part, Table 4 lists the soil types mapped at Minerva Mine and the limiting factors of each soil type. A recurring limiting factor across all the different soil types is the plant available moisture, with other limiting factors across the various soil types including rockiness, erosion, salinity, structure and soil workability. The Rehabilitation Planning Part section 6.3.3 states that topsoil does not require chemical alterations, fertiliser or organic matter. However, little information is provided in the Rehabilitation Planning Part demonstrating the soils will be able to support the PMLU without the application of ameliorants.	Provide an updated Rehabilitation Planning Part that includes further information which demonstrates that the soil types mapped at Minerva Mine are not prone to dispersion or erosion. Provide an updated Rehabilitation Part which provides further information to demonstrate that the existing topsoil available at Minerva Mine does not require amelioration.
5	6.5 Landform Design 6.8 Revegetation	Figure 17 provides a 3D model of the two residual voids but does not include the out of pit dumps and the balance of the site. It appears that the landform shown in this figure does not align with the landform provided in figure 14 to support the flood modelling. The Minerva Mine Rehabilitation Management Plan, Table 19 in section 10 expands on the major limiting factors for grazing. The table demonstrates that spoil generally in the range of 12-17% slope has an erosion potential of 5 (being the most severe on a scale of 1-5). The grassy open woodland PMLU completion criteria propose '<i>external batters ≤25% slopes covered with minimum of 0.5m thick competent rock mulch</i>'.	Provide an updated Rehabilitation Planning Part that includes further information about the overall site landform including the waste dumps as required under the heading Landform Design in section 3.6.1 of the PRCP Guideline. Provide an updated Rehabilitation Planning Part that includes further information which demonstrates that the PMLU of grassy open woodland is able to be supported on the out of pit dumps and external batters at the slope and vertical lift proposed.

		According to the Rehabilitation Risk Assessment recorded in Table 18 of section 7 of the Rehabilitation Planning Part, the risk rating for poor vegetation establishment of grassy open woodland PMLU is ranked as 'significant'. The risk rating for gully and rill erosion is also ranked as 'significant' due to concentration of rainfall runoff and/or landform slopes too steep for infiltration characteristics of rehabilitated substrate and/or inadequate ground cover. Further information is required to demonstrate that the: • cracking black soils at Minerva are stable soils that are not prone to dispersion or erosion, • external batters with slopes of $\leq 25\%$ and $\leq 15\text{m}$ vertical lifts with are able to achieve a stable landscape and support the PMLU, • topsoil placed on top of the rock mulch at the proposed slope will not run-off with a rain event, and • an open grassy woodland PMLU is able to occur on the external batters.	
6	6.7 Water management PRC Schedule RM7 & RM9 in application to Sandhurst Creek Diversion	The Rehabilitation Planning Part Section 6.7 says the Sandhurst Creek Diversion is a permanent diversion that will remain post mine closure. The diversion water licence requires an on-going monitoring and evaluation program be carried out consistent with ACARP Project C9068 Monitoring and Evaluation Program for Bowen Basin River Diversions (ACARP 2001). The water licence cannot be relinquished until the diversion is meeting or progressing towards: • developing features (including geomorphic and vegetation) present in the landscape and in local watercourses • maintenance of a sediment transport regime that allows the diversion to be self-sustaining and not directly impact upstream or downstream reaches; and • the diversion and associated structures maintain equilibrium and functionality and do not require ongoing maintenance.	Provide an updated PRC plan that incorporates the outcomes specified in ACARP 2001 to demonstrate a stable condition has been achieved. Provide an updated Rehabilitation Planning Part that includes copies of the following supporting documents, and provide an amended version of the PRC Schedule that incorporates appropriate outcomes contained within: • The Sandhurst Creek Diversion water licence (water licence number 406741) under the Water Act 2000 as well as any referenced supporting material and/or basis of

		The PRCP Schedule provides limited criteria specific to the diversion and further information is required regarding how water will be managed across the site after closure and all rehabilitation activities have been completed. Maps are not provided showing the flow path of surface water to offsite receiving waters.	design/design objectives used to support the original approval • The ongoing monitoring and maintenance reports for Sandhurst Creek Diversion to demonstrate that the diversion has been fully rehabilitated and that active maintenance programs are no longer required or trending to no ongoing maintenance requirements • Australian Groundwater and Environmental Consultants Pty Ltd (2017), Minerva Residual Void Investigation – Groundwater Inflow Calculation, dated 21/07/2017, report number G1753D.
7	6.8 Revegetation 2.6.8 Vegetation Appendix B – Rehabilitation Management Report	To support the rehabilitation objectives across the site, the Rehabilitation Planning Part should include some indication about how each PMLU, particularly the open grassy woodlands, will provide regional connectivity. Table 5 and Figure 7 of the Rehabilitation Planning Part provide regional ecosystems present within the mining lease and a map of the location of each regional ecosystem both within and adjoining the mining leases. According to the Appendix B – Rehabilitation Management Report (RMP), 10c and 10d of section 1, the purpose of the RMP is “<i>strategies for preservation and enhancement of Regional Ecosystems</i>,” and “<i>enhancement of corridor connectivity and biodiversity</i>”. These are key aspects of Minerva Mine’s rehabilitation, yet these are not apparent within the Rehabilitation Planning Part. The western portion of Minerva Mine overlies a biodiversity corridor of State significance and the eastern portion the headwaters of a riparian corridor of regional significance. It is recommended that rehabilitation and revegetation is focussed on progressing to Regional Ecosystem types (and native species in these vegetation types).	Provide an updated Rehabilitation Planning Part which specifies a seed mix which can provide regional connectivity between the surrounding regional ecosystems and the revegetation and rehabilitation on site. Alternatively, provide an updated Rehabilitation Planning Part which justifies why revegetation and rehabilitation to be conducted at Minerva Mine cannot target a specific regional ecosystem to improve regional connectivity.

8	6.9 Final Void Treatments WK Geotech report Figures – Pit water Appendix A – Residual Void Investigation Report Appendix B of Appendix A – PSM 2021, Highwall Stability Study PSM2432-124L REV1	Section 4.4 of Appendix D Residual Final Void Stability Assessment states the maximum standing water levels (SWL) in each pit as being 210mRL and 200mRL for the western and southern voids respectively. For the purposes of calculating geotechnical stability and Factor of Safety (FoS) the use of the maximum SWL is not considered appropriate. Section 3.4 of Appendix A Residual Void Investigation Report indicates the long term equilibrium levels will be 195mRL and 175mRL for the western and southern voids respectively. Without the pit water offsetting the potential failure forces, the FoS is consistently less than 1.5 for the western void. Further, Appendix B of Appendix A (Page 53) identifies that the most adverse scenario (lowest FoS) is associated with the lowest lake level and with global pit wall stability marginally improving as lake levels increase. Hence, it appears that maximum lake levels provide for the closure bund to be located closer to the pit crest. Conversely, the no lake scenario requires a bund furthest away which may interact with the diversion. This indicates the pit may not be stable while final lake levels are establishing (which may take a considerable amount of time). The initial stability analysis provided on Page 17 of Appendix A shows that a backfill buttress is required in the Southern pit for the closure bund to remain outside the diversion and hence prevent interaction with the 1:1,000 AEP flood extent. The results of the initial stability analyses for the recommended buttress are presented in Appendix B. The Residual Void Investigation Report (Sojitz Minerva Mining 2021a) included the stability analysis as an appendix, with the report also indicating a review of the PSM (2021) stability analysis would be undertaken before submission of this Rehabilitation Planning Part. However, section 6.9 Final Void Treatments (Page 47 of the Rehabilitation Planning Part) states the WK Geotechnical report confirmed that no additional reshaping/remedial works (e.g. buttressing) are required. Further, input listed in the WK Geotechnical report indicates that neither the geotechnical closure study (Appendix	Provide an updated Rehabilitation Planning Part that demonstrates the pits will remain in a stable condition when standing water levels are at equilibrium. Provide an updated Rehabilitation Planning Part that includes a sensitivity analysis of the factor of safety for a range of standing water levels including no lake scenario. Provide an updated Rehabilitation Planning Part that includes information that demonstrates the determination of FOS meets industry best practice (for example, Geotechnical considerations in open pit mines (DME 1999)). For each water level scenario, provide an updated Rehabilitation Planning Part that includes information regarding the methods used to determine the location of the safety infrastructure demonstrating that it complies with industry best practice (for example, Safety bund walls around abandoned open pit mines (DME 1997)). Provide an updated Rehabilitation Planning Part that includes designs showing locations of the final (redesigned) crests, set back distances, proposed safety berms, any adjacent permanent infrastructure, and the mining lease boundary. Provide an updated Rehabilitation
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		B or Appendix A) nor the Residual Void Investigation Report was considered by WK Geotechnical. No information is provided regarding how the setback distance for the closure bund has been determined. It is unclear where the safety infrastructure will be located in relation to the diversion and the void crests.	Planning Part that includes the following additional information regarding the pit stability modelling: • Assumptions regarding infiltration and recharge from Sandhurst Creek into the mine voids. • Information regarding the potential for Sandhurst Creek to influence geotechnical instability, pose additional potential failure modes and whether this was considered in the FoS modelling. • The invert level and material characterisation between Sandhurst Creek and the final voids? Provide an updated Rehabilitation Planning Part that includes further clarification regarding the stability of the Southern Pit and whether additional works are required to achieve a minimum FoS while the standing water level achieves equilibrium.
9	6.9 Final Void Treatments 6.1 Hydrogeology Appendix A – Residual Void Investigation Report	It is noted that the existing numerical groundwater model was not considered fit for purpose and therefore not used in the residual void investigation. Instead, an analytical approach was presented in AGE 2017 which predicted groundwater inflows from the basalt and the Permian aquifers into the final voids. This information was then used as an input to the KBR 2017 void water balance. The analytical approach adopted by AGE 2017 is a variation from the numerical modelling approach which is commonly provided to model groundwater inflows to final voids. Therefore, further information is required to justify the use of the analytical approach as opposed to the use of a numerical approach.	Provide an updated Rehabilitation Planning Part that includes: • additional justification that the analytical approach presented in AGE 2017 and consequently KBR 2017 is fit for purpose in determining long term groundwater inflows to the final voids, • any information available on current mine inflow conditions in comparison to predictions made in AGE 2017 and KBR 2017, and

		Furthermore, as the economic coal reserves of Minerva Mine were depleted in August 2021, the site is currently undertaking mine closure rehabilitation activities. It is considered that inflow to the mine since mining ceases may provide some confirmation of the predictions of AGE 2017 and KBR 2017. Section 2 of Appendix A – Residual Void Investigation Report, states “AGE consider these model predictions to be low, especially when compared to the 2015 Minerva Mine water balance estimate of groundwater inflow during mining being ~362ML/year (MJV 2015).” The Residual Void Investigation Report and the Rehabilitation Planning Part do not appear to give any updated actual mine inflow estimates beyond those calculated for 2015.	any updated operational mine inflow estimates for periods since 2015.
10		The following matters are based on Section 4.2 of Appendix A – Residual Void Investigation Report. Section 4.2 states “<i>The void extents have been based on available data and it is understood that final void design (including the level of backfill) are being finalised at the time of writing. This might reduce the extent of highwall exposed in each void, though not likely to be significantly different to the dimensions adopted for this work.</i>” It is not clear from the Rehabilitation Planning Part report if there are any significant differences between the final void and the backfill areas and those on which the AGE 2017 and KBR 2017 work was based on. Furthermore, the report estimates that groundwater inflow from the Basalt and Permian aquifers uses a regional water table elevation to represent these aquifers, however no observed water level data is provided in the report to substantiate this assumption. In determining inflows from the basalt and Permian aquifers an equation is used which requires a groundwater gradient. The groundwater gradient appears to be determined by assuming the extent from each pit that drawdown in groundwater levels occurs as a result of inflow to the pits. The assumed extent or distance from the pit and details on how it was determined is not provided. Additionally, recharge is applied to this ‘capture zone’ where drawdown occurs, but	Provide an updated Rehabilitation Planning Part which addresses the following: - Updated advice on any significant differences between the final void and backfill areas and those on which the AGE 2017 and KBR 2017 work was based on. - The likely impacts of these differences on predicted final void behaviour. - Observed water level data for the basalt and Permian aquifers to support the assumptions in section 4.2 of AGE 2017 that the water level elevation is 270m in both of these aquifers. - Details of the extent of the capture zone used in the formula for groundwater inflow and the area

		maps are not provided to demonstrate the location of this 'capture zone.' Additionally, the report does not provide information to support how the following figures were determined and whether calibration of these figures occurred in the formulation process: - Recharges in the capture zones of the residual voids: 6% of rainfall to the basalt; 0.1% of rainfall to the weathered Permian cover - Groundwater inflow hydraulic conductivity - Basalt 1m/day - Coal seam 0.01m/day	where recharge was applied for each pit. - Details of how recharge rates were determined and whether any calibration of these recharge rates occurred in the process. - Details of how the hydraulic conductivity values were determined and whether any calibration of these values occurred in the process.
11		The KBR 2017 void water balance described in section 4.4 of Appendix A – Residual Void Investigation Report was said to have made allowances for, “<i>rainfall runoff reporting to the final voids and runoff from the low-wall spoil area (surface and baseflow)</i>.” The area of the open-cut pit backfilled with spoil is significant. In backfilling this area, an additional local aquifer has been created. Recharge rates to this newly created aquifer following rainfall will likely be high. It is not clear from the description provided “<i>runoff baseflow</i>” if the drainage of groundwater from this spoil aquifer to the final voids has been included in the final void investigation. It is also not clear if there is any understanding of the groundwater level within the spoil backfill area. Furthermore, the following components are missing from the KBR 2017 void water balance model: - Groundwater inflow from spoil - Surface water inflow (rainfall, runoff) - Evaporation - Groundwater inflow from basalt - Groundwater inflow from Permians - Drainage between pits	Provide an updated Rehabilitation Planning Part that provides details of the following: - how increased recharge to the backfill and drainage of groundwater from the spoil backfill to the final voids has been included in the final void investigation; - the various components of the KBR 2017 void water balance model, including: - Groundwater inflow from spoil - Surface water inflow (rainfall, runoff) - Evaporation - Groundwater inflow from basalt - Groundwater inflow from Permians - Drainage between pits
12	6.10 Built Infrastructure 6.7 Water management	This section states that specific infrastructure will remain after mine closure for use by the landholder and that a landholder agreement is provided in Appendix C. Information is not provided regarding whether	Provide an updated Rehabilitation Planning Part that includes a detailed description of the infrastructure to remain.

		any remediation works are required to ensure the infrastructure is suitable for the PMLU. It is noted that some dams are proposed to remain and are listed in Appendix C and described as bore production dams and industrial water dams. However, section 6.7 states that the industrial area dam received run-off from the heavy vehicle workshop and may contain residual contaminants. Further section 6.7 states that sediment dams that receive water from stockpiles and spoil dump areas will remain after closure to support the PMLU. These dams will require remediation works to remove contaminants so they are non-polluting and suitable for the PMLU. A list of infrastructure to be decommissioned and removed is provided in section 6.10.2. However, the RAs that relate to this infrastructure has not been specified. RAs 6-8 and RA 19 appear to relate to this infrastructure. However, the schedules for these areas do not include milestones that include works necessary to ensure the land will achieve a stable condition including decommissioning of infrastructure and contaminated land assessments to certify the land is suitable for the PMLU. It is noted that waste tyres maybe disposed in the pit and general waste disposed on site.	Include dams that have received water from disturbed areas (including the industrial dam and site dams) in the schedule by including them in a RA and assign RMs that reflect the works required to ensure they are suitable for the PMLU. Provide an updated Rehabilitation Planning Part that clearly identifies the location of infrastructure to be decommissioned and removed and corresponding RAs. Provide an updated Rehabilitation Planning Part that includes detailed information regarding where general waste will be disposed and how the land will be rehabilitated to achieve a stable condition.
13	7.2 Rehabilitation Trials	Limited information is provided in the Rehabilitation Planning Part regarding the rehabilitation trials. According to section 7.2, <i>“the rock mulch method proved successful and the rehabilitation approach has been adopted for all dump batters with >5% slope.”</i> It is unclear how the trial was assessed to be successful and how the results have been incorporated into informing the rehabilitation strategy and the development of rehabilitation milestones and criteria.	Provide an updated Rehabilitation Planning Part that includes further information regarding Rehabilitation trials as required by section 3.7.1 of the PRCP Guideline.
14	8.1 Milestone Criteria Monitoring	The monitoring frequency of the rehabilitation milestones provided in Table 19 in most cases, only provides monitoring during rehabilitation works. For rehabilitation milestone (RM) 7, 8, 9 and 10, monitoring is only proposed to be conducted every 3 years. The proposed monitoring frequency may not identify potential issues early so they can be rectified. Particularly in the early stages of rehabilitation, it would be beneficial to increase the frequency of monitoring to ensure there are no additional risks or impacts to environmental values as a	Provide an updated Rehabilitation Planning Part that includes information regarding monitoring and maintenance required by section 3.8 of the PRCP Guideline.

		result of rehabilitation that might not be achieving the milestones and criteria.	
PRCP Schedule			
15	PRCP Schedule – timing of milestones	It is noted that open-cut mining operations ceased in August 2021, with the site now being rehabilitated as part of mine closure activities. However, the earliest date that any areas of Minerva Mine become available for rehabilitation is the End of 2027 with most areas only becoming available in 2029-2033. Section 4 Step 3 of the PRCP Guideline provides guidance regarding determining when land becomes available for rehabilitation. It is not clear in the Rehabilitation Planning Part and Schedule that the timings proposed (2027-2033) for when areas become available align with sections 126D(4) and (5) of the EP Act.	Provide an updated Rehabilitation Planning Part includes justification for the proposed date of commencement of rehabilitation activities. Provide an updated Rehabilitation Planning Part includes information demonstrating the timing of each rehabilitation milestone for each RA complies with section 126D(4) of the EP Act.
16	MM1 & MM2	Additional milestone criteria are required for these two management milestones to demonstrate sufficient improvement. For example, the milestones do not require the walls of the voids to achieve a FOS and be certified by suitably qualified person. There are no design requirements or construction specifications for the closure bund (other than it be >2m high). There is no criteria to monitor the depth and quality of the water within the voids to ensure the void is stable and non-polluting. There is no method specified to prevent access and make the area safe. There is limited information regarding the rehabilitation of the bund and what the PMLU of the bund is and whether it is included in the area designated as a NUMA. MM1 includes a milestone criteria that the closure bund is installed minimum 50m from pit crest or distance equal to FoS 1.5, however the management milestone is not achieved until 2043 which is a risk in	Provide an updated PRCP Schedule that includes criteria that reflect a geotechnically stable landform. Provide an updated PRCP Schedule that includes criteria regarding improvement measures for all walls of the residual void. Provide an updated PRCP Schedule that includes criteria regarding the construction of safety berms and measures to prevent flood water entering the residual voids. Provide an updated PRCP Schedule that includes criteria providing specific locations, dimensions, and descriptions of the safety measures. Provide an updated PRCP schedule that includes criteria regarding maximum pit water levels to prevent discharge of pit water to the surrounding environment.

		terms of access to the void and increased flood risk from Sandhurst Creek. An additional management milestone should be considered to be completed by an earlier date to ensure the safety to humans and reduce the flood risk through the installation of closure bunds and fencing, signage, etc.	Provide an updated PRCP schedule that includes criteria to monitor the depth and quality of the water within the voids to ensure it is stable and non-polluting.
17	RM7 & RM8	Milestone Criteria (iv) the ground cover is not measurable and could potentially consist of 100% rocky debris to meet the criteria. Milestone Criteria (v) the vegetation consisting of trees, shrubs and grasses is not specific or measurable..	Provide an updated PRCP Schedule that includes revised criteria that meet SMART principles. Suggest including criteria that reflect the establishment of vegetation that will support PMLU of low intensity grazing. For example: • Minimum vegetative groundcover percentage. • Specified pasture species that are palatable, perennial and productive to be established.
18	RM9 Appendix B Rehab Plan – page 51	Additional criteria are required to demonstrate achievement of stable condition. The current vegetation criteria are limited, additional criteria should be included based on a condition benchmark, derived from analogue, reference sites or Regional Ecosystem description. The species in this criterion should be native as per the Rehabilitation Management Plan. Milestone Criteria (j) relating to invasive weed species is ambiguous and further clarification is required to demonstrate weed presence is an acceptable proportion of vegetative groundcover (i.e. not including rock) Other aspects required to demonstrate a stable condition that should be considered include: • habitat features and fauna use of the area. • indicators of natural recruitment occurring.	Provide an updated PRCP Schedule that includes revised criteria that meet SMART principles and demonstrate the land has achieved a stable condition.

		- specified stem densities for vegetation/tree species. - maximum and average erosion rates and maximum depths of rills and gullies that are suitable for the PMLU, are safe and are maintained over time. - All slopes have been certified as being geotechnically stable. - absence of bare topsoil or subsoil.	
19	RM10	Criterion b) states: All areas have slopes $\leq 5\%$ covered with minimum 0.2 m thick topsoil. These criteria should be separated for clarity. Table 10 provides completion criteria for low intensity grazing and proposes a minimum of >50% vegetative ground cover. This criterion is included in the PRCP Schedule for Rehabilitation Milestone 10. However, Appendix B states that cover levels must be maintained above 70% to sustain a grazing use.	Provide criteria that address slope angles and topsoil coverage separately to improve clarity. Provide milestone criteria that will sustain the PMLU, or provide further information demonstrating that the proposed criteria will sustain the proposed PMLU in the long term.
20	RA6-8, RA19	These RAs appear to contain infrastructure that is to be decommissioned and removed. However, relevant milestones are not assigned to these areas or an area of "0" is assigned (for RA6 and 8). RA7 does not appear to include the need for a contaminated land assessment.	Provide a revised schedule for each RA that includes all relevant milestones that must be completed for the land to achieve a stable condition.
21	Dams	As noted above in comments regarding section 6.10, site dams are proposed to remain after closure and are not included in the schedule. As these dams have received runoff from disturbed areas (including the heavy vehicle workshop) remediation works will be required. Therefore, these areas must be included in the schedule. The rehabilitation milestone should include criteria required to ensure the dam is in a stable condition and able to support the PMLU. For example: - Water quality parameters and values that demonstrate the water is suitable for the PMLU. - All retained water storages are assessed as safe and stable by an appropriately qualified person.	Include site dams that are to remain post closure in the schedule by assigning a RA and RMs that reflect remediation work required to ensure they are suitable for the PMLU. Include final criteria that demonstrate the dams do not contain contaminated sediment or water and are suitable for the PMLU.
22	Schedule generally	The schedules for many RAs identify the commencement of first milestone as RM1 but RM1 is not included in the list of milestones. In some cases, the schedule does not reflect all the land passing through each rehabilitation milestone. For example for RA1, it appears	Provide a revised schedule that reflects the requirements of the EP Act and section 6.4 of the PRCP guideline.

		that only 36.7 ha will receiving a final trim. No justification for this method is provided in the Rehabilitation Planning Part.	
		Completion dates do not reflect the requirement to be 10 December of the relevant year.	
General			
23	Spatial Information	Spatial files The spatial files provided in support of the PRC plan and schedule require additional detail. Specifically, the spatial files must address the following: 1. Location of sensitive receptors; 2. 0.1% AEP flood zone of the Sandhurst Creek diversion; and 3. The total disturbance and rehabilitation area of the site in the spatial files appears larger than the total area approved by the mining tenure. Furthermore, the spatial files need to be validated with the removal of overlapping polygons.	Provide updated spatial files with the removal of overlapping polygons and provide information regarding: 1. Location of sensitive receptors or provide an explanation as to why sensitive receptors have not been included; 2. 0.1% AEP flood zone of the Sandhurst Creek diversion; 3. The discrepancy of the total disturbance and rehabilitation of the site to align with the total area approved by the mining leases.
24	Figure 9	The map in Figure 9 does not clearly differentiate the extent and category of the different PMLUs.	Provide an updated map showing the extent and clearly differentiating between the PMLUs.