

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 proposed PRC plan.

To: Graymont (NSW) Pty Ltd
Level 16, 111 Pacific Highway
NORTH SYDNEY, NSW 2060

ATTN: Mr. Donald Cheong

Your reference: EPML00319713

Our reference: 101/0000013

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

1. Application details

The application for a proposed PRC plan was received by the administering authority on 15 October 2021.

The application reference number is: EPML00319713

Land description: ML5764 and ML5763

2. Information request

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

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

3. Actions

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

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

A response to the information requested must be provided by **31 May 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 ESCairns@des.qld.gov.au.

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

4. Human rights

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

If you require more information, please contact Giles Bezzina on the telephone number listed below.



Signature

25/11/2021

Date

Chris Wake

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

Enquiries:

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

Attachments

Attachment 1: Additional information requested for proposed PRC plan – Graymont (NSW) Pty Ltd Marmor Site

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Item	Relevant section (Proposed PRC plan and/or PRCP Guideline)	Matter	Information Request
Rehabilitation Planning Part			
1	PRCP Guideline, Section 3.2 Post Mining Land Use (PMLU)	The proposed PRC plan nominates water storage as the PMLU for the entire void area. It is unclear for what purpose and how the water storage will be used. Parts of the proposed PRC plan indicate that there may be native ecosystem values (e.g.: parts of the void are proposed to be revegetated, section 3.5.12 indicates microbat habitat may be enhanced as a final use). Other parts of the proposed PRC plan and the PRCP schedule milestone criteria, infer a grazing use (criteria include water quality will meet stock guidelines, section 3.5.11.3 states “water quality trends indicate that it will not be suitable for stock use as is currently expected”), although the void is proposed to be fenced to exclude stock. Section 3.3.1 of the proposed PRC plan states “although the rehabilitation outcome for the void has previously been agreed and is nominated in the existing EA as water storage, there is opportunity to enhance rehabilitation outcomes for the void...”.	Provide additional information to clarify for what purpose and how the water storage is proposed to be used.
2		The proposed PRC plan states that part of the void will incorporate the water storage, with the remaining areas to be revegetated and act as a catchment for the water storage. These	Further define the water storage PMLU into uses (e.g.: water

		separate uses should be distinguished from one another with different PMLUs assigned, as the milestones and milestone criteria for these uses will differ.	storage catchment area and water storage)
3	PRCP Guideline, Section 3.6.3 Void closure plan	It is unclear how or when the proposed rehabilitation methodology for the void will achieve a stable condition. Section 3.5.11.2 of the proposed PRC plan states that some slopes will be left to erode at a “natural rate” with a bund placed at their base for safety issues. The milestone criteria propose a void wall slope of 83% for some parts of the void. Final engineering and landform plans are proposed to be prepared after the cessation of mining operations (section 3.5.11.2 of the proposed PRC plan and PRCP schedule rehabilitation milestone criteria). The 2005 geotechnical assessment provided with the PRC plan recommends actions for stabilisation of void walls. Section 3.5.11.2 states that some stabilisation works were undertaken in 2014 and refers to a geotechnical assessment prepared by Rocktest consulting in 2014 following the implementation of stabilisation works within the void. The 2014 assessment was not provided with the PRC plan. It is unclear in the PRC plan which recommendations from the 2005 assessment were undertaken, are still required, or were reassessed in the 2014 report. It is also unclear whether the 2014 assessment made further recommendations. Section 3.6.3 of the PRCP Guideline requires a void closure plan that includes a pit wall geotechnical stability report that focuses on how the void will achieve post-closure slopes that will exhibit stability characteristics consistent with the planning and design of the post closure void. Mechanisms for achieving acceptable geotechnical stability must be detailed in the plan.	Provide the 2014 geotechnical assessment report referred to in the proposed PRC plan. Provide additional information in a revised void closure plan that meets section 3.6.3 of the PRCP guideline, to demonstrate how the void will achieve a stable condition including: - Clarification of rehabilitation works proposed to be undertaken and already completed - An assessment of rehabilitation works required to achieve a stable condition considering the recommendations of the 2005 and 2014 geotechnical assessments, stabilisation works undertaken to date and rehabilitation work required to be undertaken - Justification for the proposal to leave slopes to erode naturally - Justification for the proposed slope angles of 83% for RA15, RA17 and RA18.

4	PRCP Guideline, Section 3.8 Monitoring and maintenance	The monitoring program discussed in section 3.7.1.2 of the proposed PRC plan refers to stability monitoring (e.g., erosion) for areas nominated as a grazing PMLU but not for areas nominated as water storage PMLU.	Provide a monitoring program that demonstrates how the stability of the void will be monitored and measured to demonstrate achievement of a stable condition.
5	Proposed PRC plan, Section 3.5.7.2 Water management	Section 3.5.7.2 of the proposed PRC plan states that 3 permanent diversion banks will be required to manage site water post-closure with exit points at the south-western and south-eastern corners of the site. The PRC plan states that final engineering and landform designs will be prepared after the cessation of mining operations and the locations and design specifications of the permanent diversions formalised. It is unclear how risks from changes to water management on site have been considered.	Provide information to demonstrate how risks to neighbouring properties and roads from proposed permanent water diversions have been considered.
6	Proposed PRC plan, Section 3.5.7.2, and section 3.5.3 Water management	Section 3.5.7.2 of the proposed PRC plan states that the topsoil stockpile along the western boundary of ML5763 currently prevents water from flowing onto the neighbouring property and that this structure will be reshaped to provide a permanent bund directing water to the southern boundary post closure. The PRCP schedule includes milestone criteria for landform development of "topsoil stockpile removed and reused for rehabilitation on site" and section 3.5.3 (soil capping and material assessment) includes a topsoil inventory. It is unclear whether removal or retention of the topsoil stockpile has been considered in the topsoil inventory or rehabilitation methodology for RA13.	Provide information to clarify the proposed rehabilitation methodology for RA13 and whether topsoil stockpile retention is accounted for in the topsoil inventory.
7	PRCP Guideline, section 3.1 Rehabilitation / improvement planning	Progressive rehabilitation must be maximised by commencing rehabilitation as soon as practicable after land becomes available. It is unclear why rehabilitation of RA14 to RA17 is proposed to commence in 2037.	Provide further information to justify the proposed commencement of rehabilitation for RA14 to RA17 in 2037.

8	Proposed PRC plan, Section 3.5.9.1 Revegetation – Areas with a grazing PMLU	Two native species (<i>Heteropogon contortus</i> and <i>Bothriochloa bladhii</i> ssp. <i>Glabra</i>) have been selected for grazing areas as well as an exotic, Shrubby stylo (<i>Stylosanthes scabra</i>).	Provide further justification for the selection of an exotic grazing species in favour of available native alternatives.
9	Proposed PRC plan, Section 3.5.9.2 Revegetation – Residual Void	Examples and references provided for natural regeneration of limestone quarries are not specific – i.e., reference sites are from European locations. The revegetation section refers to “spontaneous progression with minimal intervention” in favour of well-intentioned removal of diverse growing conditions through intense rehabilitation techniques. Graymont intends to follow the spontaneous progression approach with targeted reseeding to enhance growth conditions.	Provide justification for the selection of reference quarries from European locations rather than local examples with similar environmental conditions and restraints. If appropriate analogues are unavailable, please specify that in the relevant section of the PRC plan. Further information is required to support the justification of the chosen approach to regeneration. Specifically, provide information regarding triggers that will initiate a targeting reseeding program, and determining factors being considered to determine whether growth conditions need to be enhanced.
10	Proposed PRC plan, Section 3.5.9.2 Revegetation – Residual Void	The selected species list is outlined as “preliminary” and only lists canopy species, understory species are absent. The species listed are notably deep-rooted trees. Further information is required to demonstrate that the available substrate is sufficient to support those requirements. Revegetation species have been determined based on the likely commercial availability of seed mixes.	Provide further information to demonstrate the substrate is sufficient to support proposed revegetation species. Provide a final species list including further explanation as to why other regional ecosystems existing in the area have not been targeted for reestablishment.

			Provide current commercial availability of seed mixes to support species selection.
11	Proposed PRC plan, Section 3.5.10 Rehabilitation implementation quality control	There is limited discussion of how success or failure of revegetation trials will be measured specifically: - Revegetation trials for the species list (Section 3.5.9.2) are planned for RA14, however limited information is provided to outline how success or failure of trials will be evaluated. - RA14 is inclusive of the southwestern section of the void where previous benching work has been undertaken. - Section 3.6.1 identifies that RA15 will be used to conduct trials to evaluate the most appropriate species mix and seed delivery methods for the proposed revegetation methods in the residual void.	Provide further information on the proposed monitoring program for the rehabilitation trial, particularly success or failure metrics in accordance with SMART principles and section 3.7.1 of the PRCP Guideline. Please provide further justification to outline whether RA14 is a representative example of the site profile – i.e., is this rehabilitation area going to provide representative rehabilitation trial results? Confirm the rehabilitation area/s that will be used for rehabilitation trial work.
12	Proposed PRC plan, section 3.6 Risk assessment	Risk assessment table 29 includes consideration of “Vegetation selected is not suited to site conditions”. There are risks associated with a range of extreme environmental conditions, plant development and maturity with minimal care, the planting site being unsuitable, minimal intervention and maintenance that have not been addressed in the risk assessment.	Address risks associated with vegetation selection in further detail or justify their absence of consideration in the risk assessment.
PRCP Schedule			
13	PRCP Guideline, section 4.1 Reference Map	Section 4.1, Step 2, and appendix 2 of the PRCP Guideline specify requirements for reference map(s) to be attached to the proposed PRCP schedule identifying the boundary of each RA	Provide a reference map that meets the requirements of section 4.1 of the PRCP Guideline.

		and their proposed PMLUs. Figure 22 of the proposed PRC Plan depicts RAs but not PMLUs.	
14	Rehabilitation areas	There is an opportunity to further refine/amalgamate the rehabilitation areas (RA) where the land outcome and rehabilitation methodologies are common. Areas within an RA can be listed in different columns in the RA table to reflect the date a specific area is subject to a relevant milestone to reflect the different stages of rehabilitation. In some instances, it may be more appropriate to reflect slightly different methodologies in a milestone rather than by separating the disturbance into individual RAs. For example, - RA10, RA11 and RA12 relating to roads and tracks – where the only difference in criteria is the type of material being removed (gravel or bitumen). - Infrastructure RAs could be considered for amalgamation where similar methodologies are required. - Laydown areas RA6, RA7 and RA8 may be able suitable to be amalgamated. - RA1 and RA2 relating to stockpiles could be included in an infrastructure RA as the only difference is the removal of either limestone or coal, this action could be reflected in the criteria.	Provide a revised PRCP Schedule considering refining / amalgamating RAs based on common land outcomes and rehabilitation methodologies.
15	Milestone references	The references for the proposed milestones include a prefix that depicts the RA or group of RAs it is specifically relevant to. Milestone references should be named RM1, RM2, RM3, RM4 and so on.	Provide a revised PRCP schedule that includes Milestones and Milestone Criteria that follow Section 4.1, Step 4 and 5 of the PRCP Guideline (Appendix 2 of the PRCP Guideline provides guiding examples of Milestone and Milestone Criteria).

16	PRCP Guideline, section 4.1 Rehabilitation Milestones	A PRCP schedule should include one set of rehabilitation milestones that represent each significant event or step in rehabilitation. Milestones will be applied within the RA tables to the relevant location (RA) and at the relevant date, hence, repeating milestones for each RA or group of RAs is not necessary. The proposed PRCP schedule nominates milestones that are identical or almost identical to each other as follows: - 5 identical and 1 similar milestone for <i>Achievement of PMLU to stable condition (Grazing)</i> (I_RM6, RT_RM5, RA13_RM4, RMA20_RM5, PS_RM5, RV_RM7); - 2 milestones for <i>decommissioning</i>, with the only difference being that one includes bore decommissioning. These can be combined into one milestone, bore decommissioning is a completion criteria, if there were no bores in an RA, the criteria would be satisfied hence there is no need for a separate milestone (RA_3_RM1 and RA4_RM1); - 12 milestones for <i>Landform Development</i>, some of which are identical to each other and others which are almost identical but have some differences (PS_RM2, RA13_RM1, RA14_RM1, RA15_RM1, RA18_RM2, RA3_RM2, RA4_RM3, RM5_RM1, RA6_RM2/RA8_RM2, RA7_RM2, RMA20_RM2, RT_RM2); - 2 milestones for <i>Removal of kiln dust, reject limestone and coal ash</i> (RMA20_RM1 and RA18_RM1) and 2 milestones for <i>Removal of stockpiles</i> (RA2_RM1 and RA1_RM1), with the only differences between each pair being the type of stockpile, it's location and the location the material will be removed to. Location is depicted by the RA already and does not need to be separated into its own milestone and the type of stockpile and where it will be removed to should be a criteria; - 4 identical milestones for <i>Removal of surface aggregate / road base</i> – this is a criteria rather than a milestone and could be	Revised rehabilitation milestones to remove repetition of milestones and milestone criteria.
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		included in as discussed above and could be included as one also (RA11_RM1, RA6_RM1, RA7_RM1 and RA8_RM1); - 5 mostly identical milestones for <i>Revegetation</i> milestones (PS_RM4, I_RM5, RT_RM4, RA13_RM3, and RMA20_RM4); - 2 identical milestones for <i>Surface preparation</i> (RA18_RM3 and RA_19_RM1); - 6 identical milestones for <i>Sustainable achievement of PMLU</i> (PS_RM6, I_RM7, RT_RM6, RA13_RM5, RV_RM8, RMA20_RM6); - 5 identical milestones for <i>Topsoiling and surface preparation</i> (PS_RM3, I_RM4, RT_RM3, RA13_RM2, RMA20_RM3); - 5 identical, or mostly identical, milestones for <i>revegetation</i> (PS_RM4, I_RM5, RT_RM4, RA_RM13, RMA20_RM4); - 2 identical milestones for <i>surface preparation</i> (RA18_RM3 and RA19_RM1); - 6 identical milestones for <i>sustainable achievement of PMLU</i> (PS_RM6, I_RM7, RT_RM6, RA13_RM5, RV_RM8, RMA20_RM6); - 4 identical milestones for "topsoiling and surface preparation" (PS_RM3, I_RM4, RT_RM3, RA20_RM3).	
17	PRCP Guideline, section 4.1 Rehabilitation Milestones	Rehabilitation milestones are required to represent each significant event or step in rehabilitation and milestone criteria should reflect the rehabilitation methodology and include parameters that are measurable for achieving a milestone. Some of the milestones in the proposed PRCP schedule may be more appropriate as milestone criteria, for example: - Removal of surface aggregate/road base from laydown areas and use as soil forming material for rehabilitation of the void floor (RA11_RM1, RA6_RM1, RA7_RM1 and RA8_RM1);	Revise rehabilitation milestones to reflect significant rehabilitation events or steps and ensure rehabilitation methodology is included as milestone criteria that meet SMART principles.

		- Removal of kiln dust, reject limestone and coal ash from the void and disposal off-site (RA18_RM1); - Removal of kiln dust, reject limestone and coal ash from stockpile locations and disposal off-site (RMA20_RM1); - Removal of stockpiled coal fuel and disposed off-site (RA2_RM1); - Removal of stockpiled mined limestone and placement back in the void (at RA19) (RA1_RM1); - Install safety bund /fencing around void (RV_RM4); - Break up remaining tracks in void (RV_RM5); - Break up, remove and off-site disposal of bitumen (RA12_RM1); - Decommissioning, which states "Disconnect services; Demolish and or remove buildings and tanks from site; Break up and remove concrete pads and footings" in the milestone title but does not specify these actions in the criteria (RA_3_RM1 and RA4_RM1).	
18	Milestone criteria	The PRCP schedule proposes milestone criteria that are not specific or measurable because they are reliant on future actions, for example: - RA14_RM1 includes criteria "Assess microbat usage of the adit in the void and develop and implement an appropriate mitigation and closure strategy". Section 3.5.12 proposed PRC plan states that following microbat monitoring, the most appropriate method for closure will be developed. If bats are identified a grid or gate will be installed in the adit, if not, it will be sealed with concrete; - Various milestones include a criteria "All major earthworks have been completed in accordance with the final engineering and design plan".	Revise milestone criteria to meet SMART principles.

		- An appropriate carrying capacity has been calculated that will allow for sustainable long-term grazing (PS_RM5, I_RM6, RT_RM5, RA13_RM4, RMA20_RM5).	
19	Milestone criteria	The PRCP schedule proposes milestone criteria that are not specific or measurable because they are reliant on information in other documents, for example: - All water management structures are stable and functioning as per the design (I_RM6, RT_RM5, RA13_RM4, RMA20_RM5, PS_RM5); - The void is bunded and or fenced and warning signage erected according to the specifications in the Void Closure section of the PRCP (RV_RM4); - All major earthworks have been completed in accordance with the final engineering and design plan (PS_RM2, RA3_RM2, RA4_RM3, RA6_RM2, RA8_RM2, RA7_RM2, RT_RM2, RA14_RM1, RA15_RM1 and RA18_RM2); - The void is bunded and or fenced and warning signage erected according to the specifications in the Void Closure section of the PRCP (RV_RM4); - For stockpiled topsoil, amelioration has been applied according to the Site preparation and topsoiling Section of the PRC plan (PS_RM4, I_RM5, RT_RM4, RA13_RM3, RMA20_RM4); - The pasture species used, and the seeding rate applied are consistent with the Revegetation Section of the PRCP For stockpiled topsoil, amelioration has been applied according to the revegetation plan included in the PRCP (PS_RM4, I_RM5, RT_RM4, RA13_RM3, RMA20_RM4).	Revise milestone criteria to meet SMART principles.

20	Milestone criteria	The proposed PRC plan refers to rehabilitation methodologies that have not been specified as criteria in the proposed PRCP schedule, for example: - Construction of water management infrastructure, reshaping works and drainage/sediment/erosion controls specified in section 3.5 of the proposed PRC plan; - Bund and fencing specifications in section 3.5.11.2 of the proposed PRC plan; - Bore decommissioning specifications in section 3.5.13.2 of the proposed PRC plan.	Revise milestone criteria to meet SMART principles.
21	Milestone criteria	Some of the milestone criteria in the proposed PRCP schedule relate to incremental measures of rehabilitation outcomes. These could be revised to focus on the planned outcome, for example, - Incremental criteria <i>Erosion repair works have been conducted where monitoring has identified a deviation from the required performance</i>, could be revised to target the outcome <i>Final landform shows no evidence of erosion</i>; - Incremental criteria <i>Where required, weed management conducted</i>, could be revised to target a suitable outcome for example <i>weed coverage will account for no more than 5% of ground cover</i>. Note that these examples are provided for exemplification purposes and do not constitute an exhaustive list.	Revise milestone criteria to reflect outcomes rather than an incremental step.
22	PRCP Schedule milestones PSRM2, RA3_RM2, RA4_RM3, RA6_RM2, RA8_RM2, RA7_RM2, RA13_RM1, RA20_RM2	Refinement of several criteria throughout the schedule to meet SMART principles is required. For example: - Finalise engineering and final design plans; - All major earthworks to be completed as per design; - Rehabilitation reference sites have been established; - Average groundcover is greater than or equal to 50%;	Revise milestone criteria to meet SMART principles (see section 4.1, step 4 of the PRCP guideline).

		- No evidence of persistent surface ponding and waterlogging affecting pasture health; - An appropriate carrying capacity has been calculated that will allow for sustainable long-term grazing; Referenced criteria provided are for exemplification purposes and do not constitute an exhaustive list.	
23	PRCP schedule, milestone RV_RM7 (Achievement of PMLU to stable condition (water storage))	The milestone for achievement of PMLU to stable condition (water storage) should contain milestone criteria to demonstrate that the land has achieved a stable condition and is suitable for surrender. The criteria include <i>Water quality meets the Australian Water Quality Guidelines for Primary Industries – Stock (cattle) water use</i>, however, the specific water quality parameters that will mark achievement of the milestone should be specified in the criteria rather than only the reference to another document. Criteria that monitoring has been undertaken does not provide a measure of whether this milestone has been achieved. The specific parameters to be achieved should be included as criteria. The criteria of <i>Rehabilitation repair works undertaken where rehabilitation consistently does not meet completion criteria and is not on a desired trajectory</i> is not measurable. Stability criteria has not been included hence it is unclear to what trajectory repair works are aimed at restoring.	Revise milestone criteria for RV_RM7 to include criteria for measuring achievement of stable condition, specific outcomes of monitoring, and specific water quality parameters that mark achievement of the milestone.
24	PRCP schedule, milestone RA_RM1 (remove limestone stockpiles)	The use of the word “excess” in the milestone criteria for RA_RM1 of <i>All excess limestone feed stock has been removed and placed in the void</i> makes the criteria non-specific. The information in the footnote should be communicated in the criteria.	Revise the milestone criteria for RA_RM1 to define whether all of the limestone stockpiles will be removed from the RA.
25	PRCP schedule, RA14 table	The date for commencement of the first milestone for RA14 is nominated as 10/12/2014. Dates when areas become available for rehabilitation in the PRCP schedule should not be in the past.	Revise RA14 table in the proposed PRCP schedule to remove historical rehabilitation dates.

		Instead, previous rehabilitation works should be explained in the PRC plan, and the PRCP schedule should reflect the date the next relevant milestone required for rehabilitation of that area commences.	Ensure proposed PRC plan provides sufficient information to demonstrate rehabilitation works already undertaken.
General			
26	Disturbance area	The spatial data submitted with the PRC plan suggests that the disturbance areas for roads and tracks (0.7 ha) and infrastructure (3 ha) exceed the maximum disturbance area provisioned in the EA – Schedule D – Table 1 (Final Land Use and Rehabilitation Approval Schedule).	Please provide justification as to the exceedance of the projective surface area specified in the EA.
27	Proposed PRC plan, Section 3.5.6.3	Section 3.5.6.3 of the proposed PRC plan contains a minor typographical error as the first part of the first sentence appears to be missing.	Revise section 3.5.6.3 of the proposed PRC plan to address typographical error.