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6 August 2024

Priti Kulkarni
Principal Environmental Officer
Business Centre Coal, Coal and Central Compliance
Department of Environment, Science and Innovation
via email: Priti.Kulkarni@des.qld.gov.au
CC: Jessica Edgar - Team Leader (Assessment), Jessica.Edgar@des.qld.gov.au;
CRMining@des.qld.gov.au

Re: Progressive rehabilitation and closure plan change application – Isaac Downs Mine (EA0002817)

Dear Ms Kulkarni

Isaac Downs Coal Mine (IDCM or the Mine) is owned by Stanmore IP South Pty Ltd, a subsidiary of Stanmore Coal Limited (the Proponent). The Proponent submitted the first Progressive Rehabilitation and Closure Plan (PRCP) application package under transitional provisions of the *Environmental Protection Act 1994* (EP Act) in February 2023 for environmental authority (EA) EA0002817.

The attached documents form a change application request to the Department of Environment, Science and Innovation, as the administering authority for the EP Act. The change proposed is to adjust some of post mining land use (PMLU) landscape from "grazing" to "woodland habitat". The consequential changes include inclusion of two new rehabilitation areas (RAs) and associated rehabilitation milestone (RM) criteria. These changes were agreed verbally at a meeting between representatives from administering authority and the Proponent on 22 March 2024.

As agreed at that meeting, the attached change application also includes information required to address the relevant sections of the EP Act. As such, the attached application package includes the following:

1. A description of PMLU alternative options for overburden dumps and infrastructure areas.
2. Assessment of PMLU options against criteria derived from Section 3.2 of the *Guideline–Progressive rehabilitation and closure plans (PRC plans)* (ESR/2019/4964).
3. Ranking of the options, leading to the two new PMLU RAs.
4. Suggested updates to the draft PRCP schedule for the two new preferred / improved RAs.
5. A description of the positive consultation carried out with key stakeholders, including Isaac Regional Council, Barada Barna Aboriginal Corporation and the relevant landholder.

If you have any questions or require further information, please do not hesitate to contact Monique Roberts-Thomson at monique.roberts-thomson@stanmore.net.au .

Yours sincerely

M. Bergmann

Melinda Bergmann
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ATTACHMENT 1 – APPLICATION TO REQUEST A CHANGE TO THE PRCP SCHEDULE

1. INTRODUCTION

1.1 Background

Isaac Downs Coal Mine (IDCM or the Mine) is owned by Stanmore IP South Pty Ltd, a subsidiary of Stanmore Coal Limited (the Proponent). The Mine is located 6 km southeast of the Isaac Plains coal mine and approximately 15 km south-east of Moranbah Township, within the Queensland Bowen Basin. The Leichardt and Vermont coal seams of the Rangal Coal Measures, which dip to the east, are mined by a dragline. Mining occurs on mining lease's (ML) 700046, 700047, and 700048 under environmental authority (EA) EA0002817, last issued on 19 May 2022.

The Propnent submitted the first Progressive Rehabilitation and Closure Plan (PRCP) application package under transitional provisions of the *Environmental Protection Act 1994* (EP Act) in February 2023. The application package included the planning part, schedule and supporting technical studies developed in line with the EP Act and information requirements of the statutory *Guideline–Progressive rehabilitation and closure plans (PRC plans)* ESR/2019/4964 v3 (DESI, 2023) (PRCP guideline). A revised version of the PRCP application package was submitted in October 2023 in response to an information request (IR) received from the administering authority. The draft PRCP schedule has been discussed between administering authority and the Proponent since early 2024, with a formal decision date of 30 August 2024, after several mutually agreed decision extensions.

1.2 Requested Changes

On 22 March 2024, a meeting was held between the Proponent and administering authority to discuss a way forward to change part of the post mine land use (PMLU). It was agreed that the low wall associated with the final void previously identified as a grazing would be acceptable to change to woodland habitat PMLU with more achievable milestone criteria for the associated landscape. It was further agreed between parties that the woodland habitat PMLU would also be suitable for the final landform associated with the operational levee and riparian corridor which are both adjacent to the Isaac River.

The additional PMLU required the establishment of two new rehabilitation areas (RAs), which increased the total number of RAs from five to seven and initiated the development of new rehabilitation milestone (RM) criteria.

The two proposed new RAs include the following:

- **RA6 Low Wall**: 135 hectares (ha) with a woodland habitat PMLU.
- **RA7 Isaac River Riparian Buffer**: 51 ha with a woodland habitat PMLU.

The addition of two new RAs will require minor adjustments to the originally proposed sizes of RA2 and RA4. The revised RA map that shows the five original and two new RAs is shown in **Figure 1**.

The agreed changes to the PMLUs require assessment by administering authority against the relevant sections of the EP Act as identified in the following section and are provided as a part of this change application package. It is understood the revised PMLU will support the return to grazing and connectivity to adjacent native ecosystems, through practical and achievable criteria (as described throughout this change application).

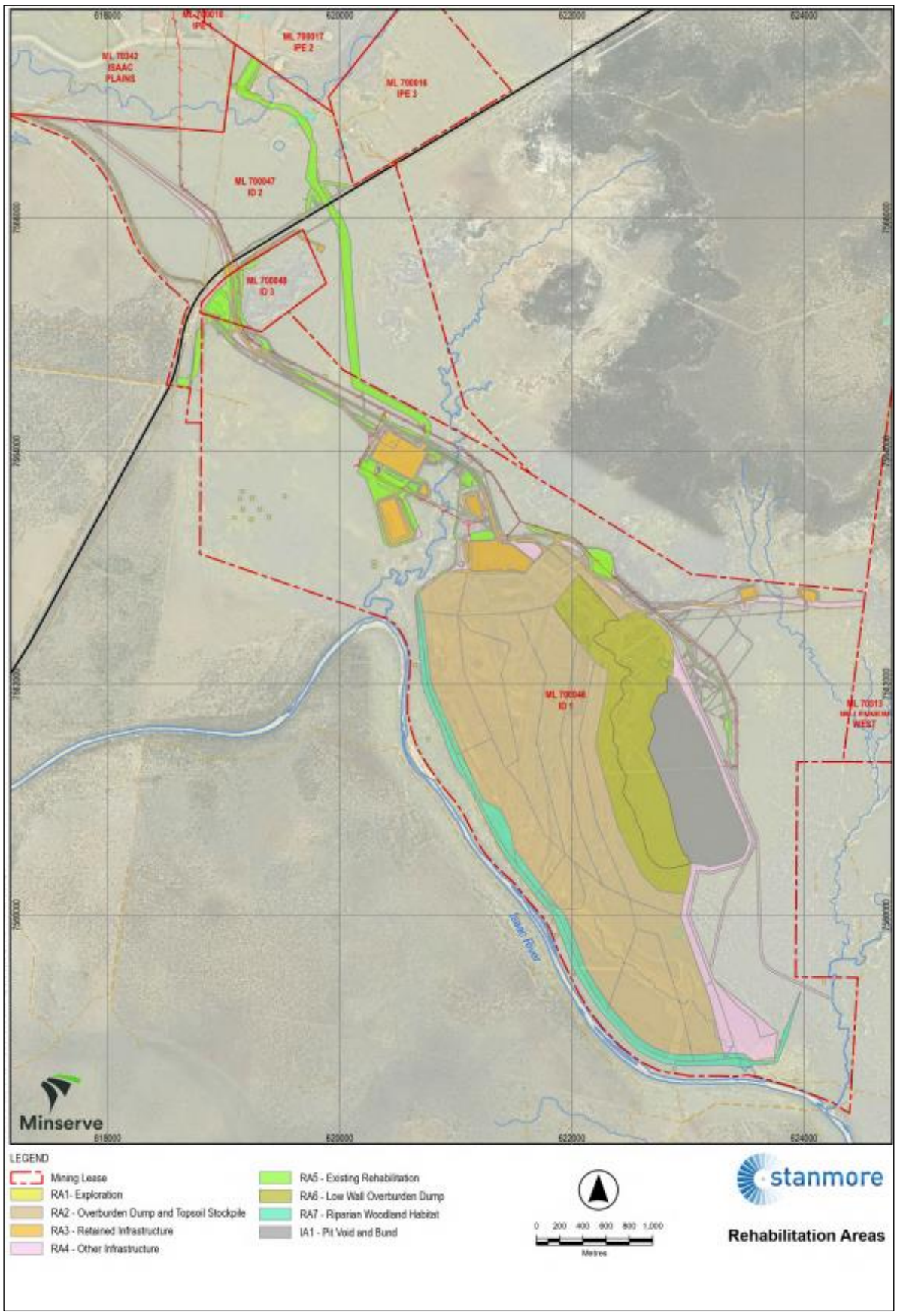

Figure 1 New Rehabilitation Areas Map for Use in the Final PRCP Schedule

1.3 Relevant Sections of the EP Act

This change application addresses the relevant information requirements of the EP Act as demonstrated in **Table 1**.

Table 1 Location of Information Requirements of the EP Act relevant to this Change Application

RELEVANT SECTION OF THE EP ACT OR PRCP GUIDELINE	RELEVANT INFORMATION
Section (s)126C(1)(d): state the extent to which each proposed post-mining land use for land, or non-use management area, identified in the proposed PRCP schedule for the plan is consistent with – (i) the outcome of consultation with the community in developing the plan; and (ii) any strategies or plans for the land of a local government, the State or the Commonwealth.	Addressed in **Section 4**
s126C(1)(j): include the other information the administering authority considers necessary to decide whether to approve the PRCP schedule for the plan. Section 3.2 (*PMLU criteria*) of the PRCP Guideline	Addressed in **Section 2**
s111A Meaning of stable condition Land is in a stable condition if – (a) the land is safe and structurally stable; and (b) there is no environmental harm being caused by anything on or in the land; and (c) the land can sustain a post-mining land use. Section 3.2 (*PMLU criteria*) of the PRCP Guideline	Addressed in **Sections 2** and **3**

1.4 Application Package

The PMLU change application package consists of the following:

- **Attachment 1 – Change Request Application:** This document contains information required by relevant sections of the EP Act to support the PMLU change request and includes:
  - Section 1: Introduction and change application request.
  - Section 2: PMLU options and evidence-based comparison.
  - Section 3: Proposed changes to the target regional ecosystems (REs) and associated RMs.
  - Section 4: Community consultation and relevant planning instruments requirements.
  - Section 5: Conclusion.
- **Attachment 2 - Draft PRCP schedule:** Discussed between administering authority and the Proponent as at 29 July 2024. It includes proposed milestone criteria associated with RA6 and RA7 in track changes (Microsoft Word format).
- **Attachment 3 Isaac Downs EA0002817 PRCP Schedule:** New PRCP schedule template (ESR/2019/5103) that includes RA6 and RA7 and associated adjustments to timing and areas for some existing RAs.

- **Attachment 4 EA0002817_PRCP_PY_31072024:** Revised spatial files developed in accordance with the guideline 'Spatial Information Submission' (ESR/2018/43372).
- **Attachment 5a Final Site Design map**: pdf format.
- **Attachment 5b Rehabilitation Areas map**: pdf format.

2. PMLU OPTIONS ASSESSMENT

Final landform and PMLU options assessments were conducted as a part of the *Isaac Downs Project — Environmental Impact Statement* (the EIS), Reach Environmental (2020). The following two optimised final landforms were identified in this assessment which are now approved in the EA:

- Base of pit / pit lake and high wall; and
- Internal and external overburden dumps, including the low wall.

The PMLU options assessment included the following steps for each of the now approved final landforms:

- Describe each of the options available and perceived applicability to the landscape/region
- Limiting factors on each of the options considered
- Assessment of the options against selected criteria; and
- Preferred PMLU(s) based on the assessment outcome.

This change application only discusses the options considered for the optimised final landform associated with the overburden dumps and low wall as changes to the pit (final void) are not proposed. The native habitat option is considered analogous to the currently selected woodland habitat for the low wall and final landform associated with the operational levee.

2.1 PMLU Options Considered

Four PMLU options were considered for the internal and external overburden dumps that includes the low wall and final landform associated with the operational flooding levee. The options considered Include:

- Grazing
- Cropping
- Native habitat; and
- Solar farm.

Sections 2.1.1 to **2.1.4** provide detail for each option considered.

2.1.1 Grazing

Grazing trials have been conducted at several coal mines on the east coast of Australia including, Hunter Valley Operations (NSW), Mt Arthur (NSW), Liddell (NSW), New Acland (Qld), Wilkie Creek (Qld) and Burton (Qld). The studies have shown through a variety of methods including blood testing, cattle health indices such as weight gain and pasture monitoring that properly managed rehabilitated grazing land has the potential to perform at least as well, and in some cases better than undisturbed grazing land.

According to baseline studies conducted to support the 2020 EIS for IDCM, the use of rehabilitated land for grazing requires minimum soil, typically 0.2 m - 0.5 m. The rehabilitated land can be sown with either native pasture or improved pasture species so long as the grasses are palatable and nutritious to cattle.

The use of rehabilitated land for grazing is less constrained by slope angle, compared to active cropping; however, consideration should be given to land access and management e.g. managing weeds in the future.

The proposed final landform will be covered with an average of 0.3 m of suitable soils. The overall slope angle on which this soil will be placed is 8.5^{o} or less for the internal and external overburden dumps, and 14^{o} for the low wall.

The proposed final landform would likely lend itself to grazing with occasional tilling for improved pasture but not cropping (discussed in the next section) on slopes greater than 8.5°, unless it was non-active cropping such as plantations which may be suited to landforms steeper than 8.5°.

2.1.2 Cropping

The main pre mining land use for the region surrounding is non-cropping agriculture. The land is currently covered in a mix of open grazing pasture, pockets of regional ecosystem vegetation and areas of regrowth vegetation where the pasture has not been maintained for grazing.

The pre mining land suitability has been assessed, which found that land ranged from suitable with moderate restricting limitations to unsuitable with severe restricting limitations. Restricting limitations include microrelief (gilgai), soil pH, ESP, nutrient deficiencies, and flooding risk. Overall, the land was found to be low-moderate quality grazing land with limited suitability for pasture development. Further, the land is not considered to be high value cropping land with no mapped strategic cropping land (SCL) occurring within the Project.

The proposed final landform will be covered with an average of 0.3 m of suitable soils. The overall slope angle on which this soil will be placed is 8.5° or less for the internal and external overburden dumps, and 14° for the low wall.

Whilst the proposed slope angles could be ploughed along the contour it is unlikely that the soil profile will be deep enough for ploughing without mixing the underlying overburden into the soil layer. Mixing of soil and overburden would increase soil sodicity and EC resulting in poor crop growth and yields. Further, it is unlikely that the soil will be able to hold enough rainfall in storage to sustain crops which will also result in poor crop growth and yield. Plant available water could be overcome by irrigation; however, water is unlikely to be of a suitable quality to sustain long term use on the dump areas.

2.1.3 Native Habitat

Prior to historical land clearing for agriculture much of the vegetation in the region would have been dominated by Brigalow trees (*Acacia harpophylla*). However, much of the region was cleared for pasture following the *Brigalow and Other Lands Development Act 1962* (Nix 1994). Techniques for removing Brigalow trees included repeated ‘pulling’ with bulldozers and chains, followed by hot fires which resulted in little or no remnant vegetation surviving. The result of these practices means that all Brigalow dominated ecosystems in Queensland are now listed as endangered under the *Vegetation Management Act 1999*. Subsequent to the clearing of Brigalow trees, buffel grass (*Cenchrus ciliaris*) varieties were introduced to improve pasture yields and this invasive grass species is now a common feature in the landscape (Marshall et al. 2012).

Prior to returning the rehabilitated landform to native habitat it is important to establish groundcover quickly using Rhodes, Buffel and fast-growing annual species (e.g. millett and sorgum). These grasses provide early stage succession of the landform providing surface cover and quickly introduce organic matter to assist with plant available water capacity. Native and other slower growing grasses do not provide the same initial stabilisation and organic matter introduction and can lead to landform instability. Native grasses and legumes will be included in the seed mix to increase diversity and contribute to a sustainable land use and habitat post mining. Revegetation of native habitat, including shrubs and bushes, would subsequently requires a combination of native seed mix and natural recruitment which aimed to achieve a similar habitat quality as surrounding undisturbed areas. Achieving rehabilitation success criteria based on native species composition, density and coverage, that are comparable to natural undisturbed areas, could potentially require significant time and management input.

2.1.4 Solar Farm

A solar farm using fixed arrays may be an option for the Project like the proposed Kidston 270 MW solar project. If a solar farm was developed on the Project, then approximately 2-3 ha of land would be required to produce each megawatt of power. Ideally the fixed arrays require relatively flat topography, suitable geological conditions, a low risk of flooding, and lower quality ecological and agricultural land. Therefore, construction of fixed arrays on the external and internal overburden dumps may be feasible if the landform can be made as flat as possible. Sections of the optimised final landform rehabilitated overburden dump

would not be available due to flooding risk from the Isaac River. Likewise, the residual void area would also not be feasible for this land use. The solar farm would require a connection to the grid and a local substation.

A solar farm constitutes a material change of use and a development approval would be required before it could be built. In most cases, the local council is the planning authority responsible for assessing the development application using the assessment benchmarks in the local Planning Scheme and the *Planning Act 2016*.

The operational lifespan of a solar farm typically ranges from 20-30 years depending on the climatic conditions and the maintenance regime. Therefore, either the solar farm would require refurbishment or to be decommissioned at that time.

2.2 Most Limiting Factors

In an options assessment, limiting factors that identify the specific conditions or constraints that restrict the feasibility or effectiveness of different options are evaluated. Understanding limiting factors can significantly impact the viability of various choices and help decision-makers evaluate trade-offs.

A summary of the most limiting factors for the PMLU options considered for the overburden dumps and infrastructure areas that includes the low wall and levee final landform proposed as woodland habitat is provided in **Table 2**.

Table 2 Overburden Dumps and Infrastructure Areas PMLU Most Limiting Factors

Options	Most Limiting Factors
Grazing	Requires minimum soil cover. Consideration should be given to slope angle, land access and management (e.g. weeds). May require land management for future landholders. Land use practices should not be cost prohibitive.
Cropping	Requires a minimum soil depth for ploughing equipment. The land is not considered as high value cropping land and has restricting limitations including nutrient deficiencies and flooding risk. The suitability of land is a limiting factor for this option.
Native Habitat	Requires long term management of the land for weeds and feral animals. Native and other slower growing grasses do not provide the same initial stabilisation and organic matter introduction and can lead to landform instability. The instability of land is a major limiting factor for this option as is the ability to achieve a successful outcome.
Solar Farm	Requires a large amount of flat land which would expand the area of disturbance of the Project. Sections of the final rehabilitated landform would not be available due to the flooding risk from the Isaac River. The area of the residual void would not be available. A development approval would be required as a solar farm constitutes a material change of use.

2.3 PMLU Assessment

This section presents an assessment of post mining land use options for the optimised landform associated with internal and external overburden dumps and infrastructure areas conducted as a part of the 2020 EIS as summarised in **Table 3**.

2.3.1 Criteria

The equally weighted criteria used to rank the potential final land uses for the residual void area, internal and external overburden dumps and the infrastructure area are:

- Safe, stable, and sustainable
- Fundamental limitations that would prevent the intended use including:

  - Restricted water quality
  - Increased earthworks
- Effectiveness, efficiency and management requirements for the post mining land use
  - Maximises future land use potential
- Achievement of preferred consultation outcomes
  - Alignment with landholder's and community's preferred outcomes
- Compliance with the local and regional planning schemes; and
- Economics to establish and maintain the post mining land use.

2.3.2 Ranking

The subjective ranking used to rank the options in the 2020 EIS as presented in **Table 3** is based on a scale of one to five:

- 1 — suitable with negligible limitations
- 2 — suitable with minor limitations
- 3 — suitable with moderate limitations
- 4 — marginally suitable; and
- 5 — extreme limitations or unsuited.

Table 3 Internal and External Overburden Dumps and Infrastructure Areas Options Analysis and Ranking

Options	Grazing	Cropping	Native Habitat	Solar Farm
Advantages	• Compatible with the predominant rural land use in the region which is likely to be viewed favourably by the landholders. • Long term commercial returns can be anticipated if land management practices are sustainable.	• The land will have a higher capability supporting a broader range of future land uses. • Compatible with the predominant rural land use in the region which is likely to be viewed favourably by neighbours and the landholder. • Long term commercial returns can be anticipated if land management practices are sustainable.	• Provide habitat for threatened flora or fauna. • The potential to support commercial apiarist, 'bush tucker' and selective harvesting operations. This will depend on the species selected for the rehabilitation seed mix.	• Land use results in a sellable asset. • Ability to connect to the existing power distribution network.
Disadvantages	• Requires land management for future landholders. • Requires suitable depth of soil cover. • May require land management for future land holders (i.e. management of weeds and periods of drought). • Repeated trafficking by livestock has the potential to trigger erosion. Steeper slopes are at greater risk.	• Land management practices will be required to avoid triggering erosion during fallow periods. • Flat and gently sloping land is required to minimise the potential for erosion and to allow safe operation of farm machinery. • Land has restricting limitations such as nutrient deficiencies and flooding risk.	• Wildlife habitat may not be valued by future landholders who wish to utilise the land for grazing purposes. • May require medium to long term management to ensure appropriate levels of weeds and / or feral animal species. There is also a risk of weed and pest migration onto neighbouring properties.	• Requires a large area of flat land. • Not all areas of land are available due to flooding risk and void area. • Developmental approval is required as there is a material change of use. • It would need maintenance. • It would need to be refurbished or decommissioned when it meets its operational lifespan (20-30 yrs.).

Options	Grazing	Cropping	Native Habitat	Solar Farm
		• There may be insufficient soil depth for ploughing resulting in poor crop growth and yield.	• Management may be required for potential fire risk. • Long time frame to achieve 'success' criteria.	• Land use not in line with the Local Planning Scheme or landholder preferences. • Additional approvals required.
Ranking Criteria				
Safe	1	2	1	2
Stable	1	1	1	2
Sustaining	2	3	1	3
Restricted Water Quality	1	3	1	1
Increased Earthwork	1	2	1	3
Maximised Future Land Use Potential	1	2	2	3
Alignment with Stakeholder's Preferred Outcomes	1	4	3	5
Compliance with Regional & Local Planning Scheme	1	1	1	4

Options	Grazing	Cropping	Native Habitat	Solar Farm
Increased Economics to Establish the Post Mining land use	1	2	2	4
Ranking Points	**10**	**20**	**13**	**27**
Overall Ranking	**1**	**3**	**2**	**4**

2.3.3 Preferred Final Land Use and Landform

The analysis presented in **Table 3** identified that the order of preference for the overburden dump areas and infrastructure areas (other than where infrastructure will be retained for landholder beneficial use) is:

- Grazing
- Native habitat
- Cropping; and
- Solar farm.

Grazing remains a feasible option for the internal and external overburden dumps. For the option to remain feasible into the future it would require that land is manageable for the landholder and that any land use practices are not cost prohibitive.

Native habitat, which this application asserts encompasses woodland habitat, remains a viable land use option for the internal and external overburden dumps. Selecting this land use over grazing would likely be limited to areas that are required to connect remnant vegetation along the Isaac River to adjacent habitat corridors and steeper sections of landform not well suited to grazing.

The use of the internal and external overburden dumps, and the low wall, for cropping is unlikely to be a suitable use of the land post mining.

A solar farm was considered the least feasible option for IDCM, due to the requirement that the final landform be as flat as possible.

Native habitat (woodland habitat) scored high (favourably) against safe, stable, and sustaining criteria. The lowest score of 3 (suitable with moderate limitations) was assigned to this PMLU for 'alignment with stakeholder's preferred outcomes.' **Section 3.1** provides evidence the community was consulted about this PMLU change to woodland habitat approval was obtained and considered.

3. PROPOSED PRCP SCHEDULE CHANGES

Following the PMLU options assessment, it was determined that native habitat, which this application considers encompasses woodland habitat, ranked as the preferred PMLU for steeper final landforms and those adjacent to undisturbed native ecosystems. This outcome required a change to the draft PRCP schedule that was in negotiation between administering authority and the Proponent. Therefore, this change application proposes criteria that is proportionate to the level of risk and demonstrates the final landform is safe, stable, none polluting and has a sustainable land use.

The two new RAs proposed in this change application include the following:

- **RA6 Low Wall**: 135 hectares (ha) with a woodland habitat PMLU.
- **RA7 Isaac River Riparian Buffer**: 51 ha with a woodland habitat PMLU.

The following sections propose changes to the current draft PRCP schedule resulting from the creation of RA6 and RA7 and the incorporation of the woodland habitat PMLU.

3.1 Low Wall (RA6)

The proposed transition of the low wall RA to woodland habitat is similar to the currently approved cattle grazing PMLU. This is primarily due to the shared use of pasture vegetation as a component of the ground cover. The key difference lies in the incorporation of native tree species, aligning with pre-mining and surrounding ecological characteristics. Incorporating native trees enhances fauna habitat and restores biodiversity connectivity between rehabilitated areas and existing vegetation. These ecological benefits underscore that the proposed approach not only aligns with existing land uses but also offers ecological advantages while upholding responsible land management principles.

3.1.1 Target RE Description for RA6

The proposed target RE for the low wall (RA6) is 11.10.1 with a corresponding Broad Vegetation Group (BVG) designation of 10a. 11.10.1 was selected on the basis that this RE is known to occur within the regional landscape and is typically located on hilly, rocky terrain and/or substrates with poorer soils. Groundcover is proposed to consist of a mixture of native and pasture grasses. This combination is chosen to support and maintain the ecological integrity of the ecosystem while also allowing for some agricultural use. By incorporating native grasses alongside pasture grasses, the aim is to strike a balance between conservation and practical land management, ensuring the sustainability of the ecosystem and its biodiversity values.

3.2 Isaac River Riparian Buffer (RA7)

The proposed transition of the Isaac River Riparian Buffer to woodland habitat is similar to the currently approved cattle grazing PMLU. This is primarily due to the shared use of pasture vegetation as the dominant ground cover. The addition of native tree species, typical of undisturbed riparian zones of the Issac River, enhances ecological habitat values and fosters improved connectivity between rehabilitated areas and existing vegetation. This is particularly important given that landscape connectivity in the area primarily relies on existing vegetation along riparian corridors of waterways and river systems. As such the proposed change to a woodland habitat PMLU is consistent with responsible land management principles.

3.2.1 Target RE Description for RA7

The proposed target RE for Isaac River Riparian Buffer (RA7) is 11.3.25. This selection was made due to the presence of RE 11.3.25 within the regional landscape, particularly in areas adjacent to and in close proximity of waterways such as the Isaac River. RE 11.3.25 ecosystems are typically found in riparian zones, making them ideal for buffering waterways like the Isaac River. These areas often feature specific vegetation adapted to the riparian environment and play crucial roles in maintaining water quality, preventing erosion, and providing habitat for aquatic and terrestrial species.

Groundcover within this ecosystem is proposed to consist of a combination of pasture grass and rock cover as necessary. Pasture grasses may be utilized to provide grazing for livestock while still maintaining the ecological functions an open woodland riparian buffer. Rock cover can help stabilize soils, prevent erosion, and create microhabitats for certain species.

The selection of RE 11.3.25 for RA7 aims to ensure the preservation and enhancement of riparian ecosystems along the Isaac River, contributing to the overall health and resilience of the regional landscape.

3.3 Required Rehabilitation Milestone Changes for RA6 and RA7

The following sections identify the proposed RM criteria and associated appendices that have been added to the draft PRCP schedule (**Attachment 2**).

3.3.1 RM3 Landform Establishment

- Landform reshaped with maximum 25% slope (RA6) and 15% slope (RA7).
- Areas >15% to be assessed by an AQP as being stable long term, with rock mulch applied as required.
- Landform design including drainage is assessed by an AQP as being geotechnically stable with a factor of safety ≥1.4 unless an alternative is justified by an AQP.
- Rock placed a minimum thickness of 0.5m on >20% slopes.

The milestone criteria outlined above emphasize the balance between engineering solutions, like rock covers, and ecological considerations, such as maximizing vegetative cover. While rock covers can be an important design component of slopes greater than 20%, flexibility within the 15%-20% range ensures erosion stability while promoting optimal vegetative growth. Integrating engineering and ecological strategies enhances stability and fosters long-term ecological resilience and value.

3.3.2 RM5 Revegetation

- Completed seeding using a selection of species outlined in PRCP Schedule Appendix 2 (Woodland species) as available at the time of purchase and 3 (Riparian species) as available at the time of purchase. Reproduced in **Table 5** and **Table 6**.
- Completed seeding as per recommended sowing rates for individual species where possible and total recommended seeding rates for dominant tree species (5kg/ha), mid-storey species (5kg/ha), and groundcover species (5kg/ha).

Table 4 Recommended Species to be Low Wall PMLU at RA6

BVG	Upper-Story Tree Species	Groundcover Species
16a	*Eucalyptus camaldulensis* *Eucalyptus tereticornis* *Eucalyptus coolabah* *Melaluca sp.* *Corymbia tessallaris* *Angophora spp.* *Casuarina cunninghamiana*	Pasture Species (As per Appendix 1 Isaac Downs Schedule)

Table 5 Recommended Species to be Established in the Issac River Riparian Native Ecosystem Habitat PMLU at RA7

BVG	Upper-Storey Tree Species	Mid and Lower Storey Tree and Shrub Species	Groundcover Species
10a	*Corymbia citriodora* *Eucalyptus crebra* *Eucalyptus fibrosa* *Corymbia hendersonii* *Corymbia clarksoniana* *Angophora leiocarpa* *thozetiana* *Eucalyptus cambageana* *Eucalyptus crebra* *Acacia harpophylla* *Acacia cambagei* *Casuarina cristata*	*Alphitonia excelsa* *Acacia leiocalyx* *Acacia cretata* *Acacia longispicata* *Petalostigma pubescens* *Breynia oblongifolia* *Capparis canescens*	*Cymbopogon refractus* *Themeda triandra* *Eremochloa bimaculate* *Arundinella nepalensis* *Panicum effusum* *Desmodium varians,* *Brunoniella australis* *Cyanthillium cinereum* *Chrysocephalum apiculatum* *Eustrephus latifolius* *Dianella revoluta* *Phyllanthus virgatus* *Evolvulus alsinoides* *Lomandra confertifolia subsp. Pallida* *Lomandra multiflora subsp. Multiflora* *Glossocardia bidens.*

3.3.3 RM6 Achievement of Surface Preparation

- Final landform for RA6 (Low wall) woodland habitat PMLU has slopes ≤25 % and geotechnically stable condition with minimum ≥ 1.4 factor of safety unless an alternative is justified by an AQP.

3.3.4 RM7 Achievement of PMLU to Stable Condition

- A BioCondition assessment at RA6 and RA7 is completed by an AQP using the methodology outlined in the latest version of the Queensland Herbarium's BioCondition Assessment Manual.
- The BioCondition assessment required by RM7.r at RA6 and RA7 demonstrates achievement of the PRCP Benchmark for each assessable attribute for the relevant regional ecosystem as outlined in PRCP Schedule Appendix 10 and 11 (Reproduced in **Table 7** and **Table 8** respectively).

Table 6 Representative RE Benchmark Criteria for Woodland Habitat Rehabilitation at RA6

Regional Ecosystem	11.10.1 Benchmark	11.10.1 Revised PRCP Benchmark
Short description	*Corymbia citriodora* +/- *Eucalyptus crebra* +/- *Corymbia clarksoniana* woodland	*Corymbia citriodora* +/-*Eucalyptus crebra* +/- *Corymbia clarksoniana* woodland
Recruitment	100%	100%
Non-native plant cover (other than pasture grass)	0	≤ 10%
Non-native plant cover (including pasture grass)	N/A	<40%[1,2]
Tree species richness	4	≥ 3 (inc. *Corymbia citriodora*)
Native shrub species richness	4	≥ 3
Native grass species richness	9	≥ 2
Native forb other species richness	17	≥ 2
Tree canopy cover	30%	≥ 15%
Shrub canopy cover	13%	N/A[4]
Native perennial grass	16%	≥ 10%
Litter grid cover	50%	≥ 10%

1. Inclusion of pasture grass to account for dominate species during maturing of rehabilitation.
2. Note that native ground cover will be initially seeded as per Table 1 above.
3. Note that ground cover on slopes > 20% will as a minimum have a rock mulch cover which is likely to limit vegetative percentage cover.
4. No BioCondition benchmark scores for mid story (shrubs) species are allocated. This is consistent with that stated on the Queensland Government Website which states that shrubs may form a conspicuous layer. This is also consistent with the departments BVG 10a description which states, 'that a shrub layer is very sparse'.

Table 7 Representative RE Benchmark Criteria for Woodland Habitat Rehabilitation at RA7

Regional Ecosystem	11.3.25 Benchmark	11.3.25 Revised PRCP Benchmark
Short description	*Eucalyptus tereticornis* +/- *E. camaldulensis* woodland fringing drainage lines	Rehabilitated *Eucalyptus tereticornis* +/- *E. camaldulensis* woodland fringing drainage lines woodland
Recruitment	100%	100%
Non-native plant cover (not including pasture grass	0	≤ 10%
Tree species richness	4	≥ 3
Native shrub species richness	4	≥ 2
Native grass species richness	8	N/A
Native forb other species richness	13	N/A
Tree canopy cover	34%	≥ 15%
Shrub canopy cover	NA	NA
Native perennial grass	35%	N/A
Litter grid cover	21%	≥ 10%

4. COMMUNITY CONSULTATION

As required by s126C(1)(d) of the EP Act, the proposed PMLU must be informed by community consultation conducted in line with the requirements of the PRCP guideline.

Representatives from Stanmore IP South Pty Ltd re-engaged with the relevant stakeholders to communicate the proposed PMLU changes requested in this application per the community consultation plan described in Section 3.2.2 of the PRCP planning part (October 2023). The stakeholders engaged to discuss and obtain feedback on the proposed change from a grazing to woodland habitat PMLU for 186 ha of rehabilitated land included:

- administering authority via meetings and emails;
- Isaac Regional Council (IRC) via in person meeting'
- Barada Barna Aboriginal Corporation (BBAC) via phone and letter communication; and
- Landholder Wotonga Station via in person meeting.

4.1 Outcome of Consultation

The community consultation register required by section 3.5 of the PRCP guideline has been updated to record the consultation conducted to support this change application. **Table 2** is an expert of the updated community consultation register showing the issues raised specific to the proposed PMLU change and how they were addressed by Stanmore.

Table 8 Community Consultation Conducted Specific to the Change Application

Consultation Date	Community Members	Consultation Type	Information Provided	Issues Raised by the Community	How Issues Were Considered	Decisions/ Outcomes	Commitments Made by Stanmore
4/7/24	Department of Environment Science and Innovation	Electronic meeting	Available data	Justification for new PMLU, community consultation and surface water monitoring requirements.	Confirmed with the site team that additional requirements can be met through existing processes and communication channels.	Confirmed the way forward to justify new PMLU and accepted proposed water monitoring criteria.	Ability to meet new PMLU.
25/7/24	Landholder Wotonga Station	In person meeting	Revised PMLU mapping	Ensure land can be used as originally intended post mining.	Consider low intensity grazing requirements in the new PMLU.	No changes to the PMLU required.	Meet PMLU criteria.
29/7/24	Department of Environment Science and Innovation	Electronic meeting	Revised draft schedule	Most outstanding questions and negotiations in the schedule closed.	Confirmed the criteria to be accepted was relevant.	Accepted most proposed criteria.	Meet PMLU criteria.
30/7/24	IRC	In person meeting and letter	Revised PMLU mapping	Maintain social commitments and economic opportunities as previously discussed.	Participation in a forum on PMLU opportunities across the region.	No changes to the PMLU required.	Meet PMLU criteria.
30/7/24	BBAC	Phone and letter communication	Revised PMLU mapping	Maintain economic opportunities as previously discussed.	Provide tender opportunities for the implementation of rehabilitation activities.	No changes to the PMLU required.	Meet PMLU criteria.

4.2 Consistency with Local, State and Commonwealth Requirements

4.2.1 Local Requirements

The *Mackay, Isaac and Whitsunday Regional Plan* (DLGP 2012) includes the following specific policies for PMLUs:

- identified valuable mineral and extractive resource areas within the region are protected from development that might adversely affect current or future extraction;
- the operation of extraction and processing activities does not compromise:
  - human health;
  - current and future resource use opportunities; or
  - regional landscape values or ecosystem function and services; and
  - must minimise its impact on primary production;
- once extraction ceases, former mining resource areas are rehabilitated to facilitate multiple end-uses of sites, ensuring their continuing contribution to the economic, social and environmental values of the region.
- innovative practices are encouraged, including local processing and value-adding activities for mineral and extractive resources, to maximise eco-efficiencies.

The woodland habitat PMLU is consistent with this plan as it promotes the gradual return to woodland while also allowing the return of low intensity grazing to this landscape, which was the primary pre-mining economic activity in this area.

The *IRC 2035, Community Strategic Plan* (IRC 2015, the strategic plan) is regional council's commitment to the long-term future of the region. It is the blueprint for the future which outlines how IRC will work towards empowering strong, vibrant sustainable and diverse communities over the next 11 years (to 2035).

IRC is exploring new ways of capitalising on opportunities and addressing challenges by combatting inevitable social, political and economic changes to ensure the region achieves its full potential. The aim of the strategic plan is to provide clear goals and direction to improve the future of the region through growth in four key areas:

- *community — strong and diverse communities that support all to live, work and raise families;*
- *economy — the region will continue to be a top performing regional economy based on a thriving, resilient and diverse mix of industry sectors.*
- *infrastructure — the region will have effective and sustainable infrastructure that supports communities and economic sectors; and*
- *environment — a sustainable balance between environment, community and economy to ensure natural resources are sustainably managed and protected.*

Based on the following, the PMLU of woodland habitat is consistent with the strategic plan because:

- It allows for the transition to a future land use that promotes co-existence and retains community employment;
- Following rehabilitation and achieving the PMLU, the mine will continue to support the region's communities and economic sectors as an agribusiness; and
- The PMLU reflects the previous land use in the area and maximises the productive outcome of the land, while also promoting the reestablishment of ecosystem function related to and adjacent to riparian corridors of the regional primary river system.

4.2.2 Queensland Requirements

In addition to the EP Act, the following State legislation has been determined as relevant to the woodland habitat PMLU:

- *Aboriginal Cultural Heritage Act 2003*

The following State legislation has been determined as not relevant to the woodland habitat PMLU:

- *Planning Act 2016*
- *Transport Infrastructure Act 1994*
- *Land Act 1994*
- *Stock Route Management Act 2002*
- *Water Act 2000 (and Water Resource (Fitzroy Basin) Plan*
- *Nature Conservation Act 1992*; and
- *Vegetation Management Act 1999*.

4.2.3 Commonwealth Requirements

Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act)

Matters of National Environmental Significance (MNES) are known to occur within the vicinity of the Mine. These include:

- Listed threatened ecological communities (TEC) such as:
  - Brigalow (*Acacia harpophylla* dominant and co-dominant)
  - Natural grasslands of the Queensland Central Highlands and northern Fitzroy Basin
  - Poplar Box Grassy Woodland on Alluvial Plains; and
  - Semi-evergreen vine thickets of Brigalow Belt (North and South) and Nandewar Bioregions.
- 23 threatened species predicted to occur (19 fauna and 4 flora species); and
- 9 migratory species predicted to occur.

The establishment of a woodland habitat PMLU will help enhance regional ecological values and foster improved connectivity between rehabilitated areas and existing vegetation. This is particularly important given that landscape connectivity in the area primarily relies on existing vegetation along riparian corridors of waterways and river systems.

5. CONCLUSION

This change application addresses sections of the EP Act identified by administering authority as relevant to support the proposed PMLU changes. On this basis, Stanmore seeks approval of the proposed changes to the PMLU for two new RAs and additional RM criteria.

The attachments include:

- **Attachment 1:** Change Request Application (this document)
- **Attachment 2:** Draft PRCP schedule
- **Attachment 3:** Isaac Downs EA0002817 PRCP Schedule
- **Attachment 4:** EA0002817_PRCP_PY_31072024
- **Attachment 5a:** Final Site Design map
- **Attachment 5b:** Rehabilitation Areas map