PREPARED FOR

MMG Dugald River Pty Ltd

Preliminary Rehabilitation Plan

Dugald River Wind Farm Project

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Preliminary Rehabilitation Plan

Dugald River Wind Farm Project

0755929

Charissa Tomlin
Partner and Project Director

Josh Maunder
Principal Consultant and Project Manager

Environmental Resources Management
Australia Pty Ltd
Level 14
207 Kent Street
Sydney, NSW 2000

T +61 2 8584 8888

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ACRONYMS AND ABBREVIATIONS

Acronym	Description
BESS	Battery Energy Storage System
DRM	Dugald River Mine
ERM	Environmental Resource Management Australia Pty Ltd
MMG	MMG Dugald River Pty Ltd
PO	Performance Outcome
PRP	Preliminary Rehabilitation Plan
RA	Rehabilitation Area
RE	Regional Ecosystem
RMP	Rehabilitation Management Plan
State Code 23	State Code 23: Wind Farm Development
State Code 27	State Code 27: Battery storage facility development
VM Act	*Vegetation Management Act 1999*
WTG	Wind Turbine Generators

1. INTRODUCTION

MMG Dugald River Pty Ltd (MMG) proposes to develop the Dugald River Wind Farm Project (the Project) which comprises the construction, operation and decommissioning of up to 24 Wind Turbine Generators (WTGs) and a Battery Energy Storage System (BESS).

Ancillary features of the Project include up to two permanent Meteorological Masts (Met Masts) and associated infrastructure including access tracks, foundations, hardstand areas, underground cabling, overhead powerlines, material laydown areas, construction areas and a centralised operations area.

1.1 OBJECTIVES AND OBJECTIVES

The Preliminary Rehabilitation Plan (PRP) aims to establish a framework for progressively restoring native vegetation in areas cleared for construction but no longer needed for Project operations post-construction. The PRP:

- Outlines Rehabilitation Principles to guide actions across nominated Rehabilitation Areas (RAs);
  - Defines RAs;
  - Details methods for successful rehabilitation, including:
    - 1. Site preparation; and
    - 2. Appropriate seed mixes and revegetation methods;
- Defines monitoring and reporting requirements under State Code 23: Wind Farm Development (Version 3.5) and State Code 27: Battery storage facility development (Version 3.5), and management actions; and
- Specifies timing and frequency of rehabilitation requirements.

The PRP provides overarching principles and a strategic framework for the progressive restoration of cleared areas. Detailed management actions and schedules will be outlined under the future Rehabilitation Management Plan (RMP) for the Project.

The Decommissioning Security Report addresses rehabilitation management post-construction.

1.2 PROJECT DESCRIPTION

The Project will be located on the Knapdale Range, adjacent to the Dugald River Mine, owned and operated by MMG. The Project is situated on State Land, 63 km north-east of the Township of Cloncurry and immediately west of Dugald River Mine.

The Knapdale Range is situated within the Mount Isa subregion, which is characterised by tilted metamorphic hills and ranges, low open woodlands with *Eucalyptus spp., Corymbia spp* and Spinifex dominant grasslands with *Acacia spp.* dominant shrub layers throughout. Soil types range from rocky, skeletal soil types to shallow-moderate sandy loam towards the eastern base of the range.

The Project is proposed to be constructed in two stages. The first stage is proposed to comprise the construction and operation of a Met Mast and up to eight WTGs, with an associated substation and BESS. Following the construction and operation of the first stage of the Project, the second stage is proposed to consist of an additional Met Mast, up to 16 WTGS and an expanded BESS.

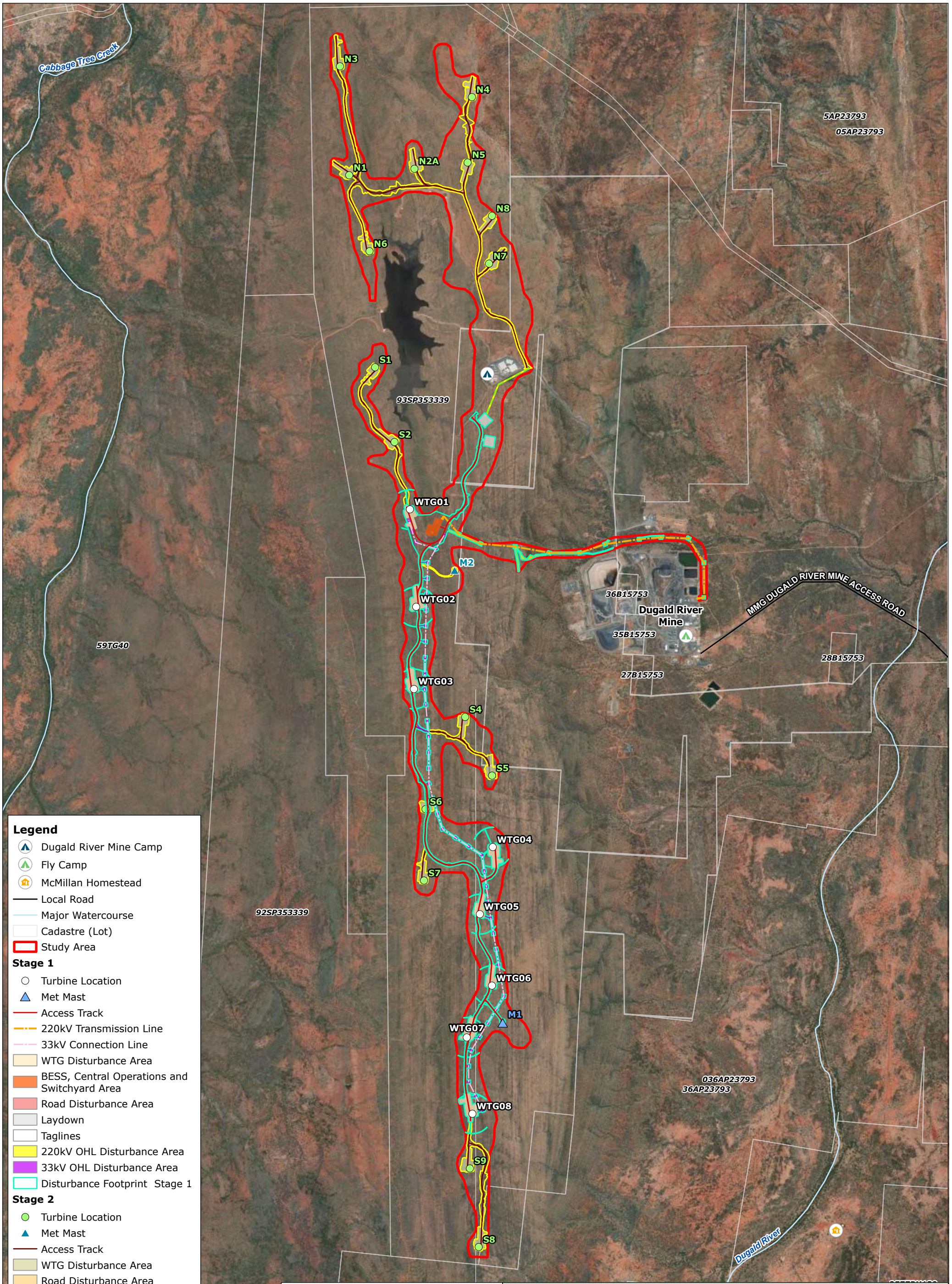
Once both stages of construction are completed, the Project will consist of the following:

- Up to 24 X 6 MW WTGs;
- A staged BESS facility comprising maximum 66 battery units and 33 Medium Voltage Power Stations;
- Two permanent Met Masts;
- Access tracks, Hardstand and Material laydown areas;
- Supporting infrastructure (including a collection substation, switchyard and underground and overhead powerlines);
- An Operations And Maintenance Facility.

The Project comprises a total disturbance footprint of 136.7 ha as detailed in Table 1-1 and as shown in Figure 1-1.

TABLE 1-1 PROJECT SPECIFICATIONS

Feature	Details	Area (ha)
Stage One		
WTG Construction Areas	8 X WTGs	21.67
Central Operations and Switchyard Area	• 18 X Battery Units • 9 X MVPS • Substation and Switching Infrastructure • Operations Facility	2.29
Access Tracks	Access Tracks	30.09
Met Mast 1	Stage 1 Met Mast	0.28
33 kV Powerline	Stage 1 Overhead Powerline which links each WTG to the Central Switchyard Area. This area includes the underground power corridors between each WTG and the closest power pole	11.34
220 kV Powerline	Overhead Powerline linking the Central Operations and Switchyard Area to the DRM	4.69
Laydowns	2 X Laydown areas for storage and construction purposes	2.42
Taglines	Temporary Taglines used during construction of each WTG	1.26
	Stage One Disturbance Area	*74.04*
Stage Two		
WTG Construction Areas	Up to 16 X WTGs	31.5
Central Operations and Switchyard Area	• 30 X Battery Units • 15 X MVPS	Nil additional disturbance
Access Tracks	Access Tracks	30.64
Met Mast 2	Stage 2 Met Mast	0.28
Stage 1 and 2 Link	Easement between Stages 1 and 2	0.27
	Stage Two Disturbance Area	*62.69*
	Total Disturbance Footprint	136.74



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1.3 LEGISLATIVE CONTEXT

1.3.1 PLANNING ACT 2016

The *Planning Act 2016* is the key legislation in Queensland that provides the framework for land use planning and development assessment. The *Planning Act 2016* is designed to ensure that development is managed in a way that supports sustainable economic, social, and environmental outcomes. It provides a consistent and transparent planning process for developers, local governments, and communities.

1.3.2 STATE CODE 23: WIND FARM DEVELOPMENT

State Code 23: Wind Farm Development (State Code 23), as part of the State Development Assessment Provisions (SDAP), establishes criteria for evaluating Wind Farm Projects to ensure environmental sustainability, compatibility with surrounding land uses, and alignment with renewable energy objectives.

Under supporting action for Performance Outcome (PO) 4 of the State Code, proponents are required to rehabilitate areas cleared for construction that are not necessary for ongoing operations, including temporary use areas such as worker accommodation sites, concrete batching plants, construction site offices, and materials storage areas. Additionally, access track sections cleared for construction but not required for operational purposes must be stabilised and replanted.

Applicants are required to provide a Preliminary Rehabilitation Plan (PRP) with a lodged application to demonstrate how PO4 will be complied with. The rehabilitation plan should outline the process for restoring these areas to their preexisting condition, to the extent practicable, and ensure compliance with PO8 regarding erosion and sediment runoff management. In accordance with the State Code 23 planning guideline, this document has been prepared to outline the following:

- Principles that will guide detailed rehabilitation strategies across the different types of areas to be rehabilitated (different track profiles, hardstand areas, large flat cleared areas for camps etc relative to pre-existing conditions, RE vegetation types and environmental values)
- Proposes approaches to rehabilitation and restoration to be deployed over different cleared typologies including the various track cross sections, areas around turbine pads and layover, areas cleared for temporary ancillary infrastructure etc.
- Proposed approaches to management, monitoring and reporting of replanting and restoration efforts over time

1.3.3 STATE CODE 27: BATTERY STORAGE FACILITY DEVELOPMENT

The SDAP's State Code 27: Battery Storage Facility Development (State Code 27) outlines the POs to protect individuals, communities, and the environment from impacts associated with the development of a battery storage facility (BSF).

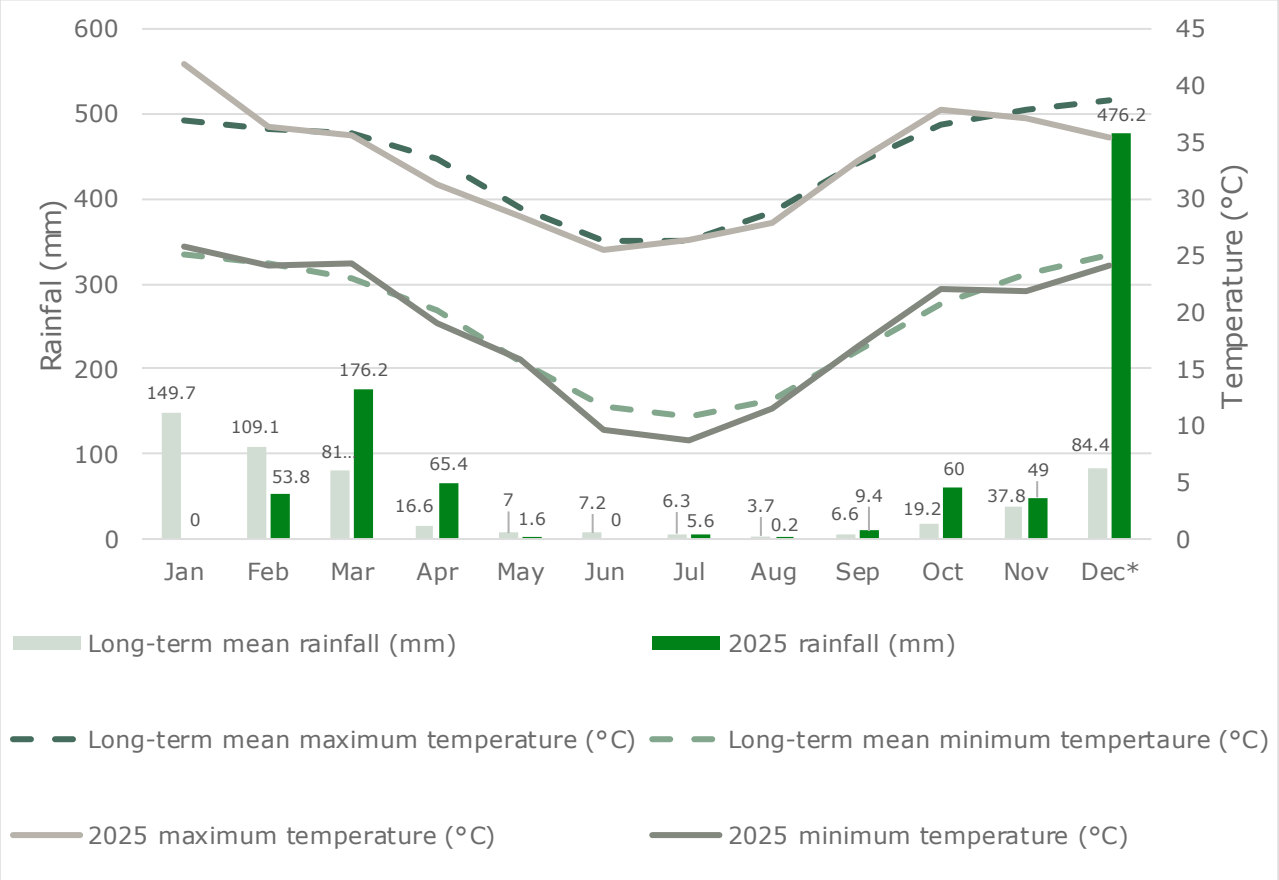
Under the Planning Guideline for State Code 27, the preparation of a detailed Rehabilitation Management Plan (RMP) is a condition of compliance against PO1, PO17, and PO19. The RMP must generally be in accordance with relevant sections of a lodged Ecological Assessment Report (EAR) or (PRP). As such, the PRP (this document) plays an important role in the development of the future RMP.

2. ENVIRONMENTAL CONTEXT

2.1 REGIONAL CONTEXT AND CLIMATE

The Project lies on the boundary of the Leichhardt Basin and the Flinders Basin. Drainage from the Knapdale Range flows to stream order five watercourse Cabbage Tree Creek of the Leichhardt River sub-basin to the north and west and to stream order five watercourse Dugald River of the Cloncurry River sub-basin to the east and south through several tributaries including Silvermine Creek and North Creek. Watercourses within the Knapdale Range itself are unnamed stream order one and two and are typically ephemeral though rocky waterholes that may persist through the dry season are known to occur in the upper catchments.

A summary of data from Weather Station number 0291411 located at the Cloncurry Airport (Figure 2-1) indicates that temperatures in the region tend towards mild to cool dry winters with lowest mean minimum temperatures around 11°C in July. December has the highest mean maximum temperature of 38.7°C. Summers are typically hot and wet with heavy tropical and flashy rain events common during this period. The mean annual rainfall (1978 to 2026) for the region is 522.1 mm.



*Increased rainfall in December 2025 (476.2 mm) induced by monsoon conditions throughout northern Queensland during this period (BoM, 2026).

FIGURE 2-1 CLIMATE STATISTICS AT THE CLONCURRY AIRPORT WEATHER STATION (029141) 2025

2.2 HISTORIC LAND USE

Roseby Station pastoral leases is located to the lower elevations of the Knapdale Range and has historically been used for cattle grazing. The Commonwealth Department of Agriculture, Fisheries and Forestry (DAFF) conducts land use mapping at both national and catchment scales using the Australian Land Use and Management (ALUM) Classification. The Knapdale Range is classified as 'grazing native vegetation,' indicating that it is composed of more than 50% native species (ABARES, 2016). Additionally, the Knapdale Range includes several small, abandoned mine workings and areas of past exploration disturbance.

2.3 GEOLOGY AND SOILS

The geology of the Knapdale Range is dominated by fine-grained pink and white Knapdale Quartzites, bordered to the west by the Lady Clayre Formation siltstones and dolostone, as well as Coocerina Formation mudstone. To the east, it is bound by Mount Roseby Schist, interspersed with poorly consolidated sediment. The Knapdale Range features rolling hills, with maximum elevations of around 310 m AHD (Queensland Globe, 2024), gradually declining into grassy plains in all directions. The proposed Disturbance Footprint is situated at elevations ranging from 270 m to 318 m AHD.

2.4 VEGETATION COMMUNITIES

Vegetation within the Knapdale Range consists of low open woodland and open *Spinifex* dominant grasslands, with moderate to sparse *Acacia spp* dominant shrub layers throughout. Soil types range from rocky, skeletal soil types to shallow-moderate sandy loam towards the eastern base of the range. Most of the vegetation communities on the Knapdale Range have been ground-truthed through extensive ecological surveys conducted by Eco Smart, AustralAsian Resource Consultants (AARC) and Wulguru Technical Services (WTS).

Table 2-1 provides details of the vegetation within the Disturbance Footprint, which comprises a mixture of State mapped Regional Ecosystems (REs) (*Biodiversity status of 2021 remnant regional ecosystems-Queensland-Version 13.1*) and ground-truthed REs, and a summary of the total area of likely impact to each.

Ground truthing of the Knapdale Range identified similar habitat features across the Disturbance Footprint. The Knapdale Range provides suitable nesting habitat for both small and large birds; suitable foraging habitat for most bird species, excluding waterbirds; and large eucalypts may provide roosting opportunities for some bat species.

Clearing within the Disturbance Footprint is expected to affect the vegetation communities as follows:

- The majority of the Project disturbance will affect RE1.11.2a, which is mapped throughout most of the Knapdale Range
- RE 1.3.7b, RE 1.5.4, and RE 1.7.7b are anticipated to be minimally impacted, as they are found in discrete areas across the Knapdale Range.
- RE 1.3.7b is primarily located along creek lines, thus care will need to be taken to minimise disturbance along creek crossings.
- RE 1.5.4 is located at lower elevations in discrete patches north of DRM; and
- RE 1.7.7b occurs only in one isolated patch north of the DRM Tailings Dam.

Figure 2-2 shows the ground-truthed vegetation mapping for the project, and details for ground-truthed Res identified withing the Disturbance Footprint are outlined in Table 2-1.

TABLE 2-1 GROUND-TRUTHED REGIONAL ECOSYSTEMS

Regional Ecosystem	Description	Area within the Study Area (ha)	Area within Stage 1 Footprint (ha)	Area within Stage 2 Footprint (ha)
1.3.7b	*Eucalyptus camaldulensis* fringing woodland, usually with *Lophostemon grandiflorus* and *Melaleuca bracteata* and/or *M. dissitiflora.* Occurs on recent levees and channel deposits of medium and smaller tributaries which are dry for most of the year; alluvial soils. Riverine.	2.13	0.27	0
1.5.4	*Eucalyptus leucophylla* and/or *Corymbia terminalis* low open woodland to low woodland over annual grasses with areas of *Triodia spp*. Occasional *Corymbia aparrerinja*, *Atalaya hemiglauca* and *Grevillea striata* and small areas of *Acacia cambagei* and *Eucalyptus leucophloia*. Occurs on plains and valley bottoms; red earths, shallow loams, clays and skeletal soils. Not a Wetland.	6.81	0.83	0
1.7.7b	*Corymbia capricornia* and/or *Eucalyptus miniata* low open woodland often with *Eucalyptus herbertiana*, *Eucalyptus leucophloia* and/or *Corymbia ferruginea*. *Eucalyptus tetrodonta* may be present in the far north. A second tree layer of *Terminalia canescens* may be present. The shrub layer is mixed and includes *Petalostigma quadriloculare*, *Grevillea dryandri*, *Terminalia canescens* and *Acacia calligera*. Ground layer of *Triodia spp*. and tussock grasses. Occurs on silcrete and lateritic surfaces. Not a Wetland.	2.47	0.0	0.52
1.11.2a	*Eucalyptus leucophloia* low open woodland often with *Corymbia terminalis*, *Corymbia capricornia*, *Terminalia aridicola* and *Eucalyptus leucophylla* with shrub layer of *Acacia spp*. and ground layer of Triodia spp. Occurs on steep hills and strike ridges. Not a Wetland.	577.59	67.60	61.17
1.11.3a	*Eucalyptus leucophylla* low open woodland often with *Corymbia terminalis*, *C. aparrerinja*, *Eucalyptus leucophloia* and *Atalaya hemiglauca* with scattered shrubs of *Acacia chisholmii* and a sparse ground layer of *Triodia pungens* and tussock grasses. Occurs on broad low hills; metamorphosed igneous rocks. Not a Wetland.	25.89	5.02	0.48
Non-remnant	N/A	16.68	0.35	0.56
	Total	**631.2**	**74.07**	**62.73**

VM Status = status under the Vegetation Management Act 1999: BD Status# = Biodiversity Status: LC – Least Concern, NC – No concern at present, OC – of concern, E – Endangered.*

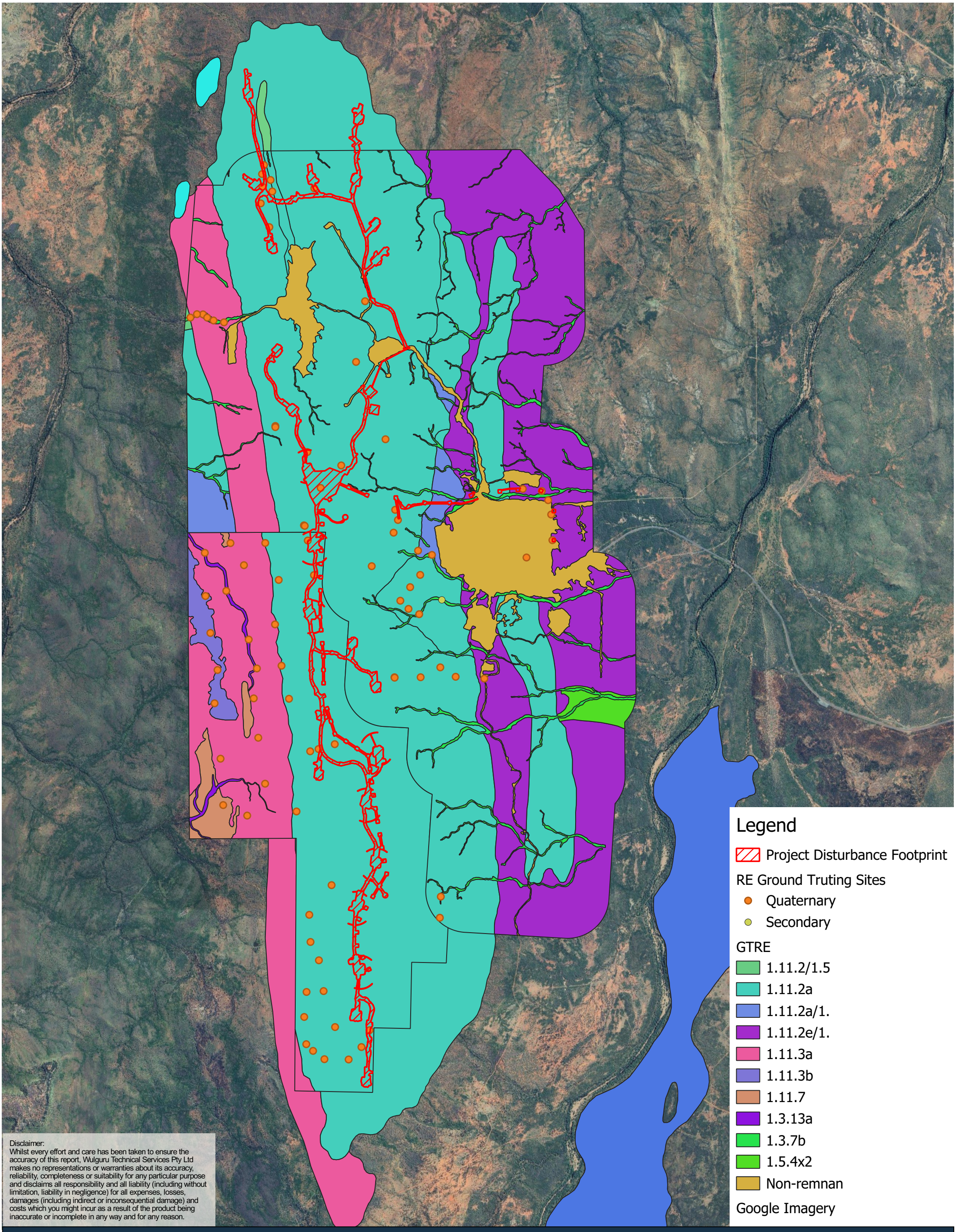


FIGURE 2.2 GROUNDTRUTHED REGIONAL ECOSYSTEM

1 0 1 2 km

CRS: GDA94 / MGA zone 54
Scale: 1:40,000 @A3

Date: 2 April 2026
Author: M. Kaminski
Version: 0.01

WULGURU TECHNICAL SERVICES

Project Number: 2024.1104
Client: MMG

2.4.1 REGULATED VEGETATION

Regulated vegetation identified as present within the Study Area is summarised as follows:

- 135.9 ha of Category B remnant vegetation.
- 0.74 ha of regulated vegetation intersecting a watercourse present within the Disturbance Footprint .
- Approximately 612.63 ha of Purple-necked rock-wallaby (PNRW) essential habitat mapped within the Study Area, with 135.7 mapped within the Disturbance Footprint.

The total approximate area of regulated vegetation and essential habitat proposed to be impacted by the Project will not exceed 136.7 ha. The Disturbance Footprint (up to 136.7 ha) will be a fraction of the size of the Study Area (631.2 ha), thus care will be taken to avoid regulated vegetation where possible.

3. REHABILIATION PRINCIPLES

The following Rehabilitation Principles provide overall guidance for restoring areas disturbed during the Project's construction phase that are not required to remain cleared for the Project's operation phase. These principles focus on soil restoration, revegetation, erosion control, and habitat protection, ensuring the site is returned to a sustainable and ecologically healthy condition.

Rehabilitation Principles to guide rehabilitation of nominated areas within the Project are as follows:

1. **Timely Rehabilitation**: Begin rehabilitation activities as soon as designated RAs are available to ensure prompt restoration.
2. **Decommissioning and Removal**: Remove any infrastructure and materials no longer necessary for the operation of the Project.
3. **Removal of Concrete Pads/Hard Materials**: Eliminate concrete pads and hard materials to facilitate soil rehabilitation.
4. **Recontouring**: Re-contour disturbed areas to restore natural landforms and hydrological flows (i.e. battered tracks and creek crossings).
5. **Soil Decompaction**: Decompact soils compacted during construction to restore natural structure and improve water infiltration (i.e., ripping to 300 mm).
6. **Topsoil Improvement**: If required, enhance topsoil quality as a maintenance measure, using mulching and other techniques to support vegetation growth as part of management actions for highly degraded soils (i.e., around hardstand areas) (see Section 8.1.2.5 for guidance on topsoil management).
7. **Erosion and Sedimentation Control**: Implement best practice sediment and erosion control measures (e.g., gravelling, silt traps), particularly in areas with steep gradients and watercourse crossings.
8. **Revegetation**: Seed for soil stabilisation and to achieve self-sustaining ecosystem. Use locally sourced seeds to ensure genetic compatibility and promote successful rehabilitation. Reuse cleared vegetation where possible to aid in habitat restoration (i.e., brush barriers and mulching see Table 6-1).
9. **Considerations for Planting Density and Layout:**
    a. Row Spacing (for manual planting methods, i.e., tubestock) - Planting rows should be spaced 3-5 m apart, especially for trees. Shrubs may be planted at closer intervals (1-3 m), depending on the desired structural composition (e.g., open woodland versus shrubland). Groundcovers can generally be planted more densely (0.3 m to 1 m) to encourage effective ground cover establishment.
    b. Stem Density - Desired stem densities vary depending on the species, including trees, shrubs, and ground cover. Trees typically require more space between stems (lower stem density) to allow for canopy development and growth, while shrubs and ground covers may require higher planting densities to maintain ecosystem functions.
    c. Seed Viability - Seed viability varies by species, season, and whether seeds are germinated in the nursery or within the local provenance. Timely seed collection is crucial for successful germination, as seeds collected at the right time are more likely to thrive. Local provenance seeds adapt better to the environment, improving survival,

while nursery-grown seeds offer controlled germination but may lack resilience to local conditions. Seed treatments, such as scarification or stratification, can enhance germination, especially for dormant species. Seed treatment and timing of collection and seeding play a crucial role in determining seedling establishment and survival.

10. **Ongoing Weed Management**: Regularly monitor and manage weed growth to prevent the spread of invasive species, and prevent competition with establishing native species, in line with a Weed and Pest Management Plan developed for the Project.
11. **Ongoing Monitoring**: Regularly monitor to track progress towards Completion Criteria (Section 5.1). Track trajectory of rehabilitation and implement corrective action where required (Section 8.1 Management Actions).

4. REHABILITATION AREAS

As rehabilitation is to occur in stages, the Project will be broken into Rehabilitation Areas (RAs). These nominated RAs are to be rehabilitated as they become available. RAs defined for the Project are outlined in Table 4-1 below. General Rehabilitation Principles described in Section 3 will be implemented; with specific considerations for RAs outlined in the comments section of Table 4-1.

TABLE 4-1 REHABILITATION AREAS

Rehabilitation Area		Comments
RA1	Open cleared areas (i.e., material laydown areas, free of obstruction zones, construction areas)	All Rehabilitation Principles apply.
RA2	Hardstand areas (i.e., assist pads, turbine pads)	All Rehabilitation Principles apply. Particular consideration should be given to Rehabilitation Principles 3,5 & 6.
RA3	Other ancillary infrastructure (i.e., batching plant, worker accommodation)	All Rehabilitation Principles apply. Particular consideration should be given to 2, 3, 5 & 6 .
RA4	Narrow tracks (<6.5 m)	All Rehabilitation Principles apply. Seeding is not required; natural revegetation will be relied upon due to the narrow margins. If cover does not reach the quantity outlined in Section 8.1.2.4 after two years, seeding will be completed.
RA5	Wide tracks (>6.5 m)	All Rehabilitation Principles apply.
RA6	Battered tracks	All Rehabilitation Principles apply. Particular consideration should be given to Rehabilitation Principles 4, 6 & 7 .
RA7	Powerline corridors	All Rehabilitation Principles apply.
RA8	Watercourse crossings	All Rehabilitation Principles apply. Particular consideration should be given to Rehabilitation Principles 4, 7, 8 & 10.

5. REHABILIATION GOALS

All RAs within the Project will be progressively rehabilitated to native ecosystem, but suitable for grazing at lower elevations, reflecting historical land use. Rehabilitation efforts will focus on achieving the threshold condition of remnant vegetation for the pre-construction RE in nominated RAs throughout the life of the Project, as areas become available. This will be accomplished by meeting the remnant vegetation Completion Criteria outlined in the *Vegetation Management Act 1999 (VM Act)*; guided by overarching Rehabilitation Principles outlined in Section 3. The Completion Criteria will be outlined in the RMP.

5.1 COMPLETION CRITERIA

Nominated RAs are to be rehabilitated to remnant vegetation status, as defined under the VM Act. Under the VM Act remnant vegetation is defined as 'vegetation that is forming the predominant canopy of the vegetation':

- Covering more than 50 % of the undisturbed predominant canopy; and
- Averaging more than 70 % of the vegetation's undisturbed height; and
- Comprising species characteristic of the vegetation's undisturbed predominant canopy.

RE descriptions and ground-truthed data will outline the appropriate canopy species composition for each RE. Reference sites will be utilised to obtain benchmark data for canopy cover and height in each distinct RE. This data will be used to evaluate the success or failure of rehabilitation of RAs back to their pre-existing REs (meeting remnant vegetation status criteria defined under the VM Act). These will also facilitate the assessment of rehabilitation trajectory and help identify the need for corrective actions when necessary.

Meeting these standards will ensure rehabilitation efforts are aligned with the ecological integrity of the area and support long-term sustainability.

5.2 REFERENCE SITES

RA vegetation metrics measured during monitoring (see below) will be compared to those measured in reference sites for the relevant RE. Reference sites will be defined under the RMP to be produced as part of conditions of approval. A minimum of three reference sites will be established per RE.

6. SITE PREPARATION

6.1 SEDIMENT AND EROSION CONTROL

Erosion and sediment control for the Project will follow the Best Practice Erosion and Sediment Control guidelines set by the Australasian International Erosion Control Association (IECA). Table 6-1 provides general measures.

Measures will be applied during both construction and operational phases, with sediment control structures remaining in place until revegetation has sufficiently stabilised the site. These strategies will support the achievement of rehabilitation objectives for erosion and sediment control across nominated RAs (refer to Table 4-1 and Section 3 for General Rehabilitation Principles).

TABLE 6-1 EROSION CONTROL MEASURES

Technique	Description	Comments
Regrading and Contouring	Tracks may be recontoured across steeper slopes and watercourse crossings to reduce high flow run-off and restore hydrological flow. Material from the track's cut and fill sections can be used for recontouring, minimizing additional disturbance.	Most applicable to tracks and watercourse crossings (RA 4-6 & 8).
Gravelling	A layer of gravel, sourced from local rocky materials, may be applied to stabilize the track surface and reduce erosion during the early stages of revegetation.	Most applicable to areas prone to accelerated run off, such as sloping terrain (RA 4- 8).
Groundcover Vegetation Establishment	Seeding with native species, such as native *Triodia spp* and groundcovers, that are consistent with the composition of the surrounding vegetation communities and will provide long-term erosion control and stabilization (see Table 7-1).	Most applicable to large, open areas not prone to accelerated run off (RA 1-3): includes low-lying, flat tracks in RAs 4-7. Will ultimately apply to all RAs (1-8) after first two years of rehabilitation and site stabilisation.
Rock Check Dams	Small rock dams can be installed across drainage channels to slow water flow and capture sediment, utilizing local rocks without additional disturbance.	Most applicable to RA8 (watercourse crossings); but can be applicable to steep sloping tracks (RA 4-7).
Brush Barriers	Brush and tree branches cleared during track construction can be used to create barriers that slow runoff and trap sediment, particularly in rocky areas, and provide protective cover for establishing seedlings. These can support native seedling establishment.	Applicable to all RAs (1-8).
Mulching	Where not used for habitat development, vegetation cleared during construction will largely be mulched and redistributed as a protective top layer to protect topsoil during revegetation activities (following. Rehabilitation Principle 8 outlined in Section 3)	Applicable to all RAs (1-8).

Throughout the construction phase, areas disturbed by construction activities should be progressively disturbed to manage erosion risk. Rehabilitation and stabilisation works for the site should be outlined in the RMP (for construction works) and the SSPO (for the operational phase) and adhere to best practice guidance such as the IECA BPESC books.

Chapter 4.4 of the IECA Best Practice Erosion and Sediment Control Books 1-3 (IECA, 2025) provides guidance surrounding the best practice land clearing, erosion control and site rehabilitation measures to be implemented based on the level of erosion risk. Additionally, best practice requirements for the clearing and progressive stabilisation of drainage channels are outlined in Appendix G of IECA Books 1-3. These requirements are summarised in Table 6-2 and Table 6-3.

TABLE 6-2 BEST PRACTICE LAND CLEARING AND REHABILITATION REQUIREMENTS (TABLE 4.4.7 IECA BPESC BOOKS 1-3, 2025)

Erosion Risk Class (RUSLE)[1]	Estimated Soil Loss Rate (t/ha/yr)	Erosion Risk Rating	Maximum weeks for land clearing works	% cover required for rehabilitation of finished areas	No. of days to achieve cover on completed areas	No. of days cover must be applied on exposed areas if no works occurs	No. of days that stockpiles require covering within
All cases		All reasonable and practicable steps taken to apply best practice erosion control measures to completed earth works, or otherwise stabilise such works, prior to anticipated rainfall-including existing unstable, undisturbed, soil surfaces under the management or control of the building/construction works.					
Very Low	<150	Very Low	4 – 8[2]	60	10 - 30[2]	10 - 30[2]	15 - 28[2]
Low	151 to 225	Low	4 – 8[2]	70	10 - 30[2]	10 - 30[2]	15 - 28[2]
Low/Moderate	226 to 350	Moderate	4 – 6[2]	70	10 - 20[2]	10 - 20[2]	15 - 28[2]
Moderate	351 to 500						
High	501 to 750	High	4	75	10	10	10
Very High	751 to 1500						
Extremely High	>1500	Extreme	2	80	5	5	5

[1]Erosion risk classes derived from the Revised Universal Soil Loss Equation (RUSLE) assessment conducted for the Project (refer to the Dugald River Wind Farm Stormwater and Erosion Risk Assessment (ERM, 2026)). As such, this table should be read in conjunction with the RUSLE mapping (refer to the Dugald River Wind Farm Stormwater and Erosion Risk Assessment (ERM, 2026)) to determine the best practice requirements that a given location is subjected to. As such, this table should be read in conjunction with the RUSLE mapping (refer to the Stormwater Impact Assessment Report – *Appendix P* of the Planning Report) to determine the best practice requirements that a given location is subjected to.
[2]Depending on the season. Shorter duration during the wet season (December to March), longer duration in the dry season (April to November).

TABLE 6-3 BEST PRACTICE CHANNEL CLEARING AND STABILISATION REQUIREMENTS (TABLE G6 IECA BPESC BOOKS 1-3, 2025)

Erosion Risk Rating[1]	Expected 24-hour rainfall	Average monthly rainfall	Maximum weeks for channel clearing works	Minimum % cover to be achieved on disturbed soil surfaces	No. of days (following completion of works) to achieve cover on disturbed soil surfaces	No. of days, that if exceeded, non-completed channel works must be stabilised	Other
All cases			All reasonable and practicable steps taken to apply best practice erosion control measures to completed channel works, or otherwise stabilise such works, prior to an anticipated increase in stream flow.				
Very Low	0 to 2 mm	0 to 30 mm	8	70[2]	30	30	N/A
Low	2+ to 10 mm	30+ to 45 mm	6	70[2]	30	30	N/A
Moderate	10+ to 25 mm	45+ to 100 mm	4	80[2]	10	20	Appropriate consideration given to the use of rock protection, biodegradable Erosion Control Mesh or the equivalent, on all erodible stream banks subject to high velocity flows
High	25+ to 100 mm	100+ to 225 mm	2	90[2]	5	10	
Extreme	>100 mm	>225 mm	1	90[2]	5	5	

[1]Erosion risk rating based on daily/monthly rainfall (IECA Table I10). Refer to the Dugald River Wind Farm Stormwater and Erosion Risk Assessment (ERM, 2026)).

[2]Minimum cover requirement may be reduced if the natural cover of the immediate land is less than the nominated value, for example in arid and semi-arid areas

Soils on the Knapdale Range are characterised as low-nutrient soils. Therefore, the addition of fertilizers or compost is not recommended, as this may inhibit seedling establishment and survival for some species, leading to a reduction in overall species richness and density (Thomson & Leishman, 2004). Instead, light mulching (75 mm – 100 mm), using repurposed cleared vegetation from the Disturbance Footprint (per Rehabilitation Principle 8, Section 3), will create a protective top layer that helps preserve the topsoil, retain moisture, and support seedling establishment.

Gravelling and recontouring along sloping terrain is recommended to maintain site stability and reduce erosion potential in areas prone to accelerated run off (see Table 6-1). It may also aid in vegetation establishment by providing refugia for seedbank to accumulate on steeper slopes. Large open areas, and low-lying, flat tracks less prone to run-off will not require gravelling and groundcover can be established immediately as an erosion control measure. Groundcover vegetation establishment will ultimately be applied to all RAs in accordance with Rehabilitation Principle 8 (Section 3) to help stabilize the site and achieve a self-sustaining native ecosystem. Additional erosion measures outlined under Table 6-1 will also be used where required.

6.2 SOIL PREPARATION

The Project is located on the rocky scarps of the Knapdale Range. Due to the naturally shallow rocky nature of soils (<0.2 m thick) and the potential for weed infestation in an environment with otherwise low weed impact, disturbances located on the Knapdale Range will be ripped (to a depth of ~300 mm, where practical) and seeded without topsoil application.

Management of all sites will include the application of gravel, particularly for tracks with steeper slopes or gradients within the Disturbance Footprint. Some RAs, such as hardstand areas where soils have been heavily compacted and degraded, may require more intensive soil management to support successful revegetation. Ongoing maintenance of these areas may include topsoil application in accordance with the ESCPC and SSPO, and or additional mulching or composting (refer to Section 8.1). Rehabilitation Principles should be adhered to in these cases (i.e., use of locally sourced topsoil).

6.3 WEED MANAGEMENT

Weed management should be carried out prior to seeding and throughout the rehabilitation process. Enforcing biosecurity measures for earthmoving equipment and vehicles accessing the rehabilitation site, as well as practicing personal weed hygiene upon entry and exit will ensure new weeds are not established within the Disturbance Footprint.

7. VEGETATION

7.1 REVEGETATION METHODS

Several seeding techniques are commonly used for rehabilitation projects. These methods vary in approach, effectiveness, and suitability depending on the site and species to be established. Several common seeding techniques are outlined in the following sections.

Direct seeding is generally considered to be the most cost-effective revegetation technique and is recommended for broadscale application (Greening Australia, 2017). Manual broadcasting or similar is recommended for RA 1, 2 and 3.

Where practicable, tracks <6.5 m wide (RA4) will be allowed to revegetate naturally. Close monitoring will track the success rate of native seedling establishment and relevant milestone criteria and. If monitoring identifies a lack of recruitment, additional seeding will be conducted.

7.1.1 NATURAL REGENERATION

Natural regeneration involves the germination of seedlings from seed fall originating from existing or nearby vegetation, from the soil seedbank, or from seeds brought in by birds and animals. This method relies on natural processes to restore vegetation and will only be effective in areas where seed dispersal is naturally occurring. This method is suitable for narrow, linear disturbance (i.e., tracks <6.5 m in width), where cleared space is closely adjacent to potential seed sources.

7.1.2 DIRECT SEEDING

Direct seeding involves sowing seeds directly onto the site by mechanical or hand methods. This method can be effective for species like *Acacia spp*. Direct seeding can be a more cost-effective and efficient way to establish vegetation in large areas compared to planting individual seedlings. Direct seeding can be carried out as per methods outlined below.

7.1.2.1 BROADCASTING

Broadcasting refers to spreading seeds by hand or with a mechanical broadcaster across the surface of the soil. This method delivers native seeds into the soil. Direct seeding via mechanical seeders is a cost-effective method for large-scale revegetation projects and is suitable for sites where other techniques, such as tubestock planting, may be more labour-intensive or expensive. Broadcasting is sometimes used in conjunction with other methods, such as hydroseeding, to ensure seed establishment.

7.1.2.2 HYDROSEEDING

Hydroseeding is a technique that sprays a mixture of seed, mulch, fertilizer, and water onto disturbed or bare soil to promote vegetation growth and control erosion. It helps stabilize soil, protects against raindrop erosion, and supports seed germination, particularly in challenging areas like slopes, construction sites, or mined areas. The mulch retains moisture and aids in the early growth of seedlings.

7.1.2.3 AERIAL SEEDING

Aerial seeding is a method of dispersing seeds from aircraft, commonly used in large or inaccessible areas for habitat restoration, erosion control, and reforestation. While efficient, its success depends on factors like seed type, weather, and soil preparation. However, it is a specialised and costly technique compared to other methods.

7.1.3 PLANTING (TUBESTOCK)

Tubestock planting, using nursery-grown seedlings in cell or tube formats, is used for revegetation across smaller areas. It can be done mechanically or by hand and can be combined with hydroseeding to enhance coverage and seedling establishment. This combination is effective for quick vegetation cover and erosion control in rehabilitation projects, depending on the density of plantings and growth rates.

7.2 SEED MIX

The proposed target species have been selected to reflect the dominant structural and groundcover species present within the Knapdale Range. A practical guide for native seed mixes has been developed for respective REs (Table 7-) using dominant species noted within technical descriptions along with ground-truthed RE mapping and data. The seed mix composition may be adjusted based on established reference plots or supplemented with additional species identified as 'Frequent species' under the relevant strata from technical descriptions to enhance species representation.

Seed mixes should reflect native species composition of the Knapdale Range (see Section 5.1, Completion Criteria III) to ensure successful establishment, reduce maintenance, and align with ecosystem values. Thus, local seed collection is preferred as local provenance is likely to be better adapted to conditions and preserves the genetic integrity of local species. Table 7-1 provides recommended seed mix for revegetation of ground-truthed RE's.

TABLE 7-1 RECOMMENDED REVEGTATION SEED MIX

Canopy Species	Shrub Species	Groundcover Species
RE1.11.2a		
Eucalyptus leucophloia	*Acacia monitocola*	*Triodia pungens*
Corymbia terminalis	*Acacia humifusa*	*Triodia molesta*
Corymbia capricornia	*Santalum lanceolatum*	*Thema triandra*
	Carissa lanceolaa	*Enneapogon lindleyanus*
RE1.11.3a		
Eucalyptus leucophylla	*Cacia chisholmii*	*Triodia pungens*
Corymbia terminalis	*Gossypium australe*	*Enneapogon polyphyllus*
Atalya hemiglauca	*Ptilotus indet.*	*Heteropogon contorus*
Grevillea striata	-	*Aristida holathera var. holathera*
Hakea chordophylla	-	*Thema triandra*
Terminalia aridicola	-	

Canopy Species	Shrub Species	Groundcover Species
RE1.3.7b		
Eucalyptus camaldulensis	*Acacia hemsleyi*	*Bothriochloa ewartiana*
Corymbia terminalis	*Sesbania benthamiana*	*Tephrosia brachyodon var. longifolia*
Atalaya hemiglauca	*Melaleuca bracteata*	*Heteropogon controtus*
Corymbia apparrerinja	*Santalum lanceolatum*	*Cenchrus pennisetiformis*
-	-	*Cleome viscosa*
RE1.5.4		
Corymbia terminalis	*Senna artemisioides subsp. Helmsii*	*Triodia pungens*
Corymbia aparrerinja	*Gossypium australe*	*Sehima nervosum*
Eucalyptus leuocphloia subsp. Euroa	*Carissa lanceolata*	*Aristida latifolia*
Eucalyptus leucophylla	*Atalaya hemiglauca*	*Enneapogon nigricans*
-	*Acacia chisolmii*	*Eulalia aurea*
1.7.7B		
Corymbia capricornia	*Petalostigma quadriloculare*	*Triodia pungens*
Corymbia ferruginea subsp. Ferruginea.	*Corymbia capricornia*	*Triodia bitextura*
Eucalyptus miniata	*Terminalia canescens*	*Schuzachyrium fragile*
-	*Acacia hammondii*	*Mnesithea formosa*
-	*Grevillea dryandra subsp. dryandri*	*Aristida holathera var. olathera*

7.3 SEEDING RATES

Seeding or application rate should be based on the desired vegetation density required in the RA, factoring in seed viability, germinability, and establishment rates, as well as planting method *A Revegetation Guide for Eucalypt Woodlands* (2017) published by the Department of Sustainability, Environment, Water, Populations and Communities (DSEWPC), provides the following equation to help estimate the amount of seed (in kilograms) required per hectare.

$$\text{Required Seed}\left(\frac{\text{kg}}{\text{ha}}\right) = \frac{\text{Target plant density}\left(\frac{\text{plants}}{\text{m}^2}\right) \times (\text{weight of 100 seeds, in grams}) \times 1000}{\text{Germination percentage}^* \text{ (or nursery survival}^*) \times \text{establishment percentage}^*}$$

* Where percentages must be listed as a percentage, not a decimal fraction

Trial plots should be implemented in accordance with the *Mine Rehabilitation: Leading Practice Sustainable Development Program for the Mining Industry (*DISRD & DFAT, 2016), as they are critical for ensuring the success of rehabilitation efforts. By testing rehabilitation techniques on a small scale, trial plots help identify the most effective approaches, build confidence in the methods being used, and allow for early adjustments while using minimal resources. Starting these trials as soon as possible provides a higher certainty of success, especially when

rehabilitation is a key control for managing environmental impacts. This approach ensures that the rehabilitation process is both efficient and effective in restoring the land without committing excessive resources upfront.

Local seed stock providers will be consulted for tailored recommendations based on seed mixes outlined in Table 7-. They may also be consulted on correct application rates. Alternatively, the above formula will be used to estimate the amount of seed (in kilograms) required per hectare.

8. MONITORING AND REPORTING REQUIREMENTS

Under both State Code 23 and 27, applicants are required to monitor and provide yearly progress reports on rehabilitation outcomes for five years following the commencement of the Project. This monitoring will track the effectiveness of rehabilitation efforts and ensure ongoing ecological restoration. Detailed monitoring requirements will be outlined in the RMP, which will specify the approach for tracking rehabilitation progress over the five year period.

Monitoring using remote sensing techniques for the ongoing assessment of erosion and vegetation establishment may be suitable. This method will help detect changes over time and provide a cost-effective solution for monitoring large areas. Biodiversity monitoring will be conducted at groundtruth vegetation sites and will most likely involve a combination of established monitoring plots (quadrats) and line transect sampling identified in the RMP. Species presence, vegetation cover, and canopy species composition will be assessed against Completion Criteria to be outlined in the RMP.

Monitoring reports will be provided to regulators as they are finalised, to track progress rehabilitation trajectory towards Completion Criteria and inform ongoing management actions.

8.1 MANAGEMENT ACTIONS

8.1.1 DEVELOPING A REHABILITATION MANAGEMENT PLAN

A RMP will be developed in accordance with State Code 23 and State Code 27, which will define Specific, Measurable, Achievable, Relevant and Timebound (SMART) completion criteria and specify monitoring timing and frequencies for rehabilitation activities to occur.

8.1.2 IMPLEMENTING MANAGEMENT ACTIONS

Key rehabilitation indicators for rehabilitation (e.g. species presence, vegetation cover and maturity) must demonstrate a positive trajectory after two years. This allows sufficient time for species to establish. If monitoring identifies a negative trajectory, corrective actions, including additional seeding, will be implemented as outlined below.

8.1.2.1 PURPLE-NECKED ROCK-WALLABY

Potential impacts to the Purple-necked Rock-wallaby (Petrogale purpureicollis) (PNRW) are to be managed in accordance with the Preliminary Vegetation and Fauna Management Plan (PVFMP), which outlines the requirements for the development and implementation of a PNRW management plan (PNRWMP).

8.1.2.2 EXCLUSION FENCING

RAs will be fenced to prevent cattle access during the establishment phase. Grazing will only be permitted once Completion Criteria are met and certified.

8.1.2.3 WEED MANAGEMENT

Effective weed management will be critical to the success of rehabilitation efforts. Regular monitoring will identify weed cover and number of weed species present within the rehabilitated areas, and control measures will be implemented to prevent weed encroachment and promote establishment of native vegetation.

8.1.2.4 SEEDING

If vegetation cover of temporary disturbance areas is <30 % compared to the cover of the reference benchmark after two years, then a second round of seeding will be carried out. Supplemental seeding for permanent disturbance will be defined in the RMP.

8.1.2.5 TOPSOIL MANAGEMENT

The stripping of topsoil and underlying soil layers suitable as a growth medium prior to development is standard practice, primarily for rehabilitation and/or revegetation purposes.

Growth medium stripping will not exceed the recommended stripping depths as determined from soil surveys, as contamination of potentially saline/alkaline subsoil can negatively affect the quality of the growth medium removed and reduce the overall germination of rehabilitation species.

Where possible, growth medium will be stripped when moist to help maintain soil structure and to reduce dust generation. Growth medium, particularly clay soils, will not be stripped when excessively wet. Where possible, growth medium will not be stripped and handled in strong wind conditions to minimise dust generation.

Use of topsoil from outside of the Knapdale Range will be avoided due to the risk of weed contamination.

Stockpiling

During growth medium stockpiling:

- locate stockpiles so that rehandling is minimised as this will result in further deterioration of the resource;
- locate stockpiles in an area that is free draining to minimise sediment loss through erosion and waterlogging;
- divert runoff from higher areas around the stockpile and install sediment controls where required;
- minimise compaction during stockpile creation;
- limit the stockpile height to a maximum of 4 m (where practical); and
- set out stockpiles in windrows to maximise surface exposure and biological activity.

Stockpiles that will not be used for longer than three months should be vegetated to provide initial stability, maintain soil viability and minimise erosion.

A growth media inventory should be maintained to identify the soil requirements and confirm availability of suitable soil on the licensed place, and must be submitted to the administering authority upon request.

8.1.2.6 MULCHING

In accordance with Rehabilitation Principle 8 (Section 3), cleared vegetation will be reused where possible to support habitat restoration. Repurposed vegetation helps mitigate the risk of introducing weeds and non-native species, stabilises topsoil, and improves soil moisture retention, especially in areas that have been heavily compacted and degraded during construction, which may require effective topsoil management. It also provides a protective layer that supports seedling establishment. The repurposed material should be applied to a depth of no more than 75 mm to 100 mm and used as a maintenance measure.

9. TIMING AND FREQUENCY

9.1 REHABILITATION TIMING

Once nominated RAs are no longer required for construction, site preparation will be undertaken, and revegetation activities will commence. Rehabilitation will occur progressively throughout the life of the Project as land becomes available in accordance with detailed rehabilitation schedules to be outlined under the RMP.

9.2 SEEDING TIMING

Seeding will occur after recontouring and the installation of erosion and sediment control measures, but immediately prior to the wet season, to maximise the chances of establishment and survival. Planting will occur no later than three weeks after soil preparation (cultivation) and the initial weed control treatment.

9.3 WEED MANAGEMET TIMING

All rehabilitation and maintenance activities should be carried out per schedules outlined under the RMP.

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ERM's Brisbane Office

Level 9
260 Queen Street
Brisbane, QLD 4000

T +61 7 3839 8393

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