

### PURPOSE PERMIT CPS10692/1 AMENDMENT APPLICATION CENTRAL DUKETON DUKETON GOLD PROJECT

Addition of L38/391 and L38/392 (King John Project Area)

December 2024



#### **EXECUTIVE SUMMARY**

Regis Resources Limited (Regis) operates the Duketon Gold Project (DGP), approximately 50 to 115 km north of Laverton, comprising three processing plants (Moolart Well, Garden Well and Rosemont), which process ore from open pits and underground mines. Four approved native vegetation clearing permits cover the footprint of the DGP operations.

- CPS10140/1
- CPS10692/1
- CPS10693/1
- CPS10694/1

An amendment to CPS10692/1 is being sought in accordance with the Environmental Protection (Clearing of Native Vegetation) Regulations, for the following:

• Inclusion of recently approved miscellaneous licences, L38/391 and L38/392, to facilitate haul road links between the King John satellite project and the processing facilities. Disturbance allowance has already been considered as part of the CPS10692/1 application. No incremental disturbance is required as part of this amendment. The clearing permit envelope will increase by an additional 156ha.

From recent studies, key environmental values present across the new application areas are:

- Two land systems Nubev and Steer.
- Vegetation mapping is dominated by Acacia and Chenopod vegetation associations, typical of the East Murchison IBRA subregion and Austin Botanical District.
- No Threatened flora or Threatened Ecological Communities present.
- One Priority flora species recorded Eremophila pungens (Priority 4) recorded at one location during a recent flora survey (Mattiske Consulting Pty Ltd 2022
- The application area is within the Lake Carey catchment.
- Key fauna habitats present were mapped as Mulga woodlands.
- Conservation significant avian species Princess Parrot, Fork-tailed Swift and Peregrine Falcon may infrequently be seen in any of the application areas.

Environmental management of potential impacts are discussed in Section 4 based on existing site controls.

A review of the record-keeping for CPS10692/1 confirmed that no clearing activities have been carried out since the permit's commencement.

An assessment of the application areas against the ten Clearing Principles is presented in Table ES1. It is noted no incremental disturbance is being sought under this amendment.



		Assessment of the	Proposal Against the Ten Clearing Principles
	Clearing Principle	Assessment	Discussion
1	Native vegetation should not be cleared if it comprises a high level of biological diversity	Proposal is not at variance to this principle	Comparison of aerial photography of the survey area and surrounding areas suggests the area under application is typical of the vegetation throughout the region. Cowan (2001) states that the Eastern Murchison subregion is rich and diverse in both flora and fauna however most species are wide ranging and usually occur in at least one, and often several, adjoining sub regions. Additionally, Beard states the Murchison is essentially the Mulga region of Western Australia and those conditions within the Murchison region favour Mulga more generally than in any other part of Western Australia. Although the proposed disturbance areas will clear vegetation rich in flora, from a regional context, the vegetation within the project area is well represented within the local and broader region.
			The extent of the disturbance footprint is adjacent to or between existing mine sites.
2	Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.	Proposal is not at variance to this principle	<ul> <li>Although the proposed clearing areas will comprise habitat that may be suitable for fauna indigenous to Western Australia, from a regional context, the vegetation associations within the project area are well represented within the broader region.</li> <li>Terrestrial Ecosystems have identified the conservation significant fauna with the greatest likelihood occurring (on the basis of occasional, infrequent or potential presence) are avifauna including Peregrine Falcon, Southern Whiteface, Fork-tailed Swift and Princess Parrot.</li> </ul>
3	Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, Threatened flora.	Proposal is not at variance to this principle	No Threatened flora species pursuant to section 19 of the <i>Biodiversity Conservation Act</i> and as listed by the Department of Biodiversity, Conservation and Attractions, or pursuant to section 179 of the EPBC Act or listed by the Department of Climate Change, Water, Energy, the Environment and Water, were recorded near the project area by Mattiske Consulting Pty Ltd (2009 to 2023).
4	Native vegetation should not be cleared if it comprises the whole or part of, or is necessary for the maintenance of a Threatened Ecological Community.	Proposal is not at variance to this principle	No Threatened Ecological Communities have been recorded from any surveys across the Duketon Gold Project.
5	Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.	Proposal is not at variance to this principle	The area under application is not considered significant as extensive areas nearby and within the project area remain uncleared. Surveys conducted by Mattiske Consulting Pty Ltd determined that the application area is typical of the vegetation throughout the region. The area under application coincides with pastoral leases where grazing has already occurred to varying degrees. Some areas which form part of this application have past history of disturbance associated with mining or are adjacent to current mining operations.



	Clearing Principle	Assessment	Discussion		
6	Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.	Proposal is unlikely to be at variance to this principle	Ephemeral drainage lines exist within the area under application but only flow following sustained heavy rainfall events, particularly after cyclonic rain and hence are unlikely to be at variance with this principle. These channels remain dry for most of the year. No wetlands exist within the area under application.		
7	Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	Proposal is not at variance to this principle	Apart from cleared areas previously disturbed by mining and their immediate surrounds, the application area ranges from Poor to Pristine condition (using the criteria of Keighery 1994). In the most part, vegetation in the application area is either Good or Very Good. The area under this application includes areas with past mining and where grazing of cattle has occurred at varying intensities. The surrounding vegetation, outside of the project area is generally in Very Good to Excellent condition and accurately reflects the vegetation on the outer boundaries of the project area. Therefore, clearing of the vegetation within the project area is unlikely to cause appreciable land degradation.		
8	Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.	Proposal is not at variance to this principle	The De La Poer Range Nature Reserve (Reserve No. 41831) is the closest reserve in the area (approximately 40 km northwest of the northern boundary of the CPS10692/1 permit area). No impacts on the environmental values of the reserve will occur as a result of clearing in the area under application due to the distance from the proposed activities.		
9	Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface and underground water.	Proposal is unlikely to be at variance to this principle	Vegetation associations that occur on minor ephemeral drainage lines within the application area receive surface water flows following large storms or cyclonic systems, which is itself often of poor quality due to high intensity. Impacts from proposed clearing activities should be minimised to minimise impacts to water quality.		
10	Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.	Proposal is not at variance to this principle	The area under application occurs on flat, landscape where flooding occurs following heavy rainfall, typically from cyclonic systems. Borodale Creek is the main ephemeral drainage line in the area but its flooding is dictated by episodic heavy rainfall rather than landscape features.		



# TABLE OF CONTENTS

EXE	ECUTIV	E SUN	MMARY	i
1.	INTR	ODUC	CTION	. 1
-	1.1.	PRO	JECT OVERVIEW	. 1
-	1.2.	STAT	IUTORY REQUIREMENTS	. 2
2.	PROJ	ECT [	DESCRIPTION	. 5
Ĩ	2.1.	PRE	/IOUS ACTIVITIES	. 5
ź	2.2.	PRO	JECT DESCRIPTIONS FOR THE NEW PERMIT APPLICATION	. 5
	2.2.1		LOCATION	. 5
	2.2.2		DESCRIPTION OF CHANGES	. 5
	2.2.3		SITE PREPARATION AND CLEARING	. 5
	2.2.4		REHABILITATION	. 5
3.	REGI	ONAL	ENVIRONMENTAL SETTING	. 5
	3.1.	NAT	URAL ENVIRONMENT	. 5
	3.2.	CLIN	1ATE	. 6
	3.3.	GEO	LOGY, SOILS AND TOPOGRAPHY	. 6
	3.4.	LAN	D SYSTEMS	. 7
	3.5.	SUR	FACE WATER	. 9
	3.6.	VEG	ETATION AND FLORA	. 9
	3.6.1		THREATENED AND PRIORITY FLORA	. 9
	3.6.2		VEGETATION ASSOCIATIONS	11
	3.6.3		VEGETATION CONDITION	14
	3.6.4		RIPARIAN VEGETATION	14
	3.6.5		THREATENED ECOLOGICAL COMMUNITIES	14
	3.7.	VER	TEBRATE FAUNA	14
	3.7.1		HABITATS PRESENT	14
	3.7.2		CONSERVATION SIGNIFICANT SPECIES POTENTIALLY PRESENT	14
	3.7.3		HABITATS FOR CONSERVATION SIGNIFICANT FAUNA	16
4.	PROJ	ECT I	MPACTS AND MANAGEMENT	16
4	4.1.	MAN	AGING ENVIRONMENTAL IMPACTS	16
	4.1.1	•	LAND CLEARING	16
	411	1	OBJECTIVES	16



5.

6.

#### Purpose Permit CPS10692/1 Amendment

Duketon Gold Project

4.1.1.2.	MANAGEMENT CONTROLS
4.1.2.	FLORA
4.1.2.1.	OBJECTIVES
4.1.2.2.	MANAGEMENT CONTROLS17
4.1.3.	INTRODUCED FLORA
4.1.3.1.	OBJECTIVES
4.1.3.2.	MANAGEMENT CONTROLS
4.1.4.	TOPSOIL AND REHABILITATION
4.1.4.1.	OBJECTIVES
4.1.4.2.	MANAGEMENT CONTROLS
4.1.5.	SURFACE WATER
4.1.5.1.	OBJECTIVES
4.1.5.2.	MANAGEMENT CONTROLS
4.1.6.	FAUNA
4.1.6.1.	OBJECTIVES
4.1.6.2.	MANAGEMENT CONTROLS
CLEARING	PRINCIPLES19
REFERENC	22 ES



# FIGURES

Figure 1:	Duketon Gold Project Regional Location	3
Figure 2:	NVCP Application Area	4
Figure 3:	Mean Maximum and Minimum Temperatures and Precipitation at Laverton	6
Figure 4:	Distribution of Eremophila Pungens (P4) in the Application Area	10
Figure 5:	Vegetation Associations at King John Haulage Network (L38/391 + L38/392)	13

# TABLES

Table 1:	Tenements which form part of this Application	1
Table 2:	Land Systems Associated with Application Area. Land Systems specifically relevant t the new additions to the application area are noted in bold type.	
Table 3:	Priority Flora Species Recorded at Duketon Gold Project	9
Table 4:	Vegetation communities of the previously approved application area	11
Table 5:	Vegetation Associations at King John Haulage Network (L38/391 + L38/392)	12
Table 6:	Current Conservation Significant Species potentially present in the Application Areas	s. 15
Table 7:	Assessment of the Proposal Against the Ten Clearing Principles	20

# **APPENDICES**

Appendix 1: Tenement Summary Reports for L38/391 and L38/392 Appendix 2: CPS10692/1 Permit Documentation



#### **1. INTRODUCTION**

#### **1.1. PROJECT OVERVIEW**

Regis Resources Limited (Regis) is an Australian mineral exploration and gold mining company with major land holdings in the Northeastern Goldfields of Western Australia. The Duketon Gold Project (DGP) occurs between 70 km and 125 km north of Laverton (Figure 1). The DGP comprises three processing facilities (Moolart Well, Garden Well and Rosemont), which process ore from several pits and underground mines across Regis' Duketon tenement package. Four approved native vegetation clearing permits currently cover the footprint of the DGP operations.

- CPS10140/1
- CPS10692/1
- CPS10693/1
- CPS10694/1

An amendment to CPS10692/1 is being sought for the following:

• Inclusion of recently approved miscellaneous licences L38/391 and L38/392, to facilitate haul road links between the King John satellite project and processing facilities. Disturbance allowance has already been considered as part of the CPS10692/1 application. No incremental disturbance is required as part of this amendment. The clearing permit envelope will increase by an additional 156ha.

Tenements covered by this purpose permit area are listed in Table 1. The new tenements that have not previously been covered by an NVCP application are indicated in bold.

Tenement	Tenement Holder
L38/133	Regis Resources Limited
L38/156	Regis Resources Limited
L38/182	Regis Resources Limited
L38/201	Regis Resources Limited
L38/204	Regis Resources Limited
L38/216	Regis Resources Limited
L38/226	Regis Resources Limited
L38/239	Regis Resources Limited
L38/315	Regis Resources Limited
L38/316	Regis Resources Limited
L38/317	Regis Resources Limited
L38/318	Regis Resources Limited
L38/319	Regis Resources Limited
L38/348	Regis Resources Limited
L38/365	Regis Resources Limited
L38/383	Regis Resources Limited
L38/391	Regis Resources Limited
L38/392	Regis Resources Limited
M38/1091	Duketon Resources Pty Ltd
M38/1092	Duketon Resources Pty Ltd; Regis Resources Limited
M38/1247	Duketon Resources Pty Ltd; Regis Resources Limited
M38/1249	Regis Resources Limited
M38/1250	Duketon Resources Pty Ltd; Regis Resources Limited
M38/1251	Duketon Resources Pty Ltd; Regis Resources Limited
M38/1257	Regis Resources Limited
M38/1258	Regis Resources Limited
M38/1259	Duketon Resources Pty Ltd
M38/1260	Creasy, Mark Gareth; Duketon Resources Pty Ltd
M38/1261	Duketon Resources Pty Ltd
M38/1262	Duketon Resources Pty Ltd; Regis Resources Limited
M38/1263	Regis Resources Limited
M38/1264	Regis Resources Limited

Table 1: Tenements which form part of this Application



M38/1265	Regis Resources Limited
M38/1269	Regis Resources Limited
M38/1270	Regis Resources Limited
M38/1277	Regis Resources Limited
M38/237	Duketon Resources Pty Ltd; Regis Resources Limited
M38/250	Duketon Resources Pty Ltd; Regis Resources Limited
M38/283	Duketon Resources Pty Ltd; Regis Resources Limited
M38/292	Duketon Resources Pty Ltd; Regis Resources Limited
M38/302	Regis Resources Limited
M38/303	Duketon Resources Pty Ltd; Regis Resources Limited
M38/316	Duketon Resources Pty Ltd; Regis Resources Limited
M38/317	Duketon Resources Pty Ltd; Regis Resources Limited
M38/319	Duketon Resources Pty Ltd; Regis Resources Limited
M38/343	Duketon Resources Pty Ltd; Regis Resources Limited
M38/344	Duketon Resources Pty Ltd; Regis Resources Limited
M38/352	Duketon Resources Pty Ltd; Regis Resources Limited
M38/354	Duketon Resources Pty Ltd; Regis Resources Limited
M38/407	Duketon Resources Pty Ltd; Regis Resources Limited
M38/498	Duketon Resources Pty Ltd; Regis Resources Limited
M38/499	Duketon Resources Pty Ltd; Regis Resources Limited
M38/500	Duketon Resources Pty Ltd; Regis Resources Limited
M38/589	Artane Minerals NL; Creasy, Mark Gareth; Legendre, Bruce Robert; Wasse, Bernfried Gunter Franz
M38/600	Mark Gareth Creasy, Duketon Resources Pty Ltd
M38/601	Mark Gareth Creasy, Duketon Resources Pty Ltd
M38/802	Regis Resources Limited
M38/837	Duketon Resources Pty Ltd; Regis Resources Limited
M38/939	Duketon Resources Pty Ltd; Regis Resources Limited
M38/940	Duketon Resources Pty Ltd; Regis Resources Limited
M38/943	Regis Resources Limited

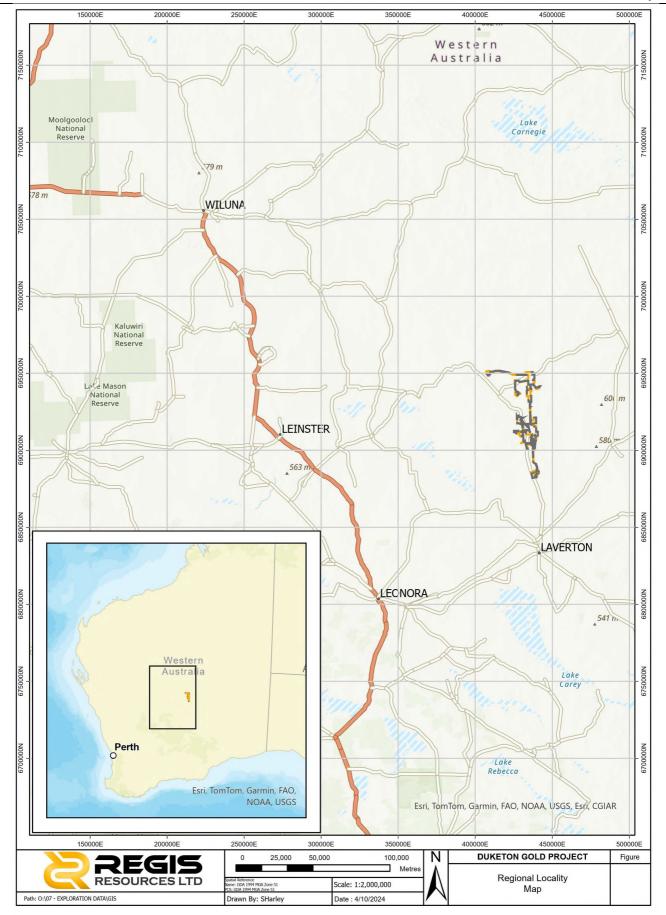
#### **1.2. STATUTORY REQUIREMENTS**

This application does not trigger items listed under the Memorandum of Understanding between the Environmental Protection Authority (EPA) and Department of Energy, Mines, Industry Regulation and Safety (DEMIRS). Based on previously approved Mining Proposals and Native Vegetation Clearing Permits (NVCP) in the immediate region and considering the scope, location and environmental setting of the proposal, the proposed clearing and impacts can be adequately managed under the *Mining Act, Environmental Protection (Clearing of Native Vegetation) Regulations* and Part V of the *Environmental Protection Act*.

This document is to be read in conjunction with the completed Department of Water and Environmental Regulation (DWER) – DEMIRS application to amend a clearing permit form C4.



#### Purpose Permit CPS10692/1 Amendment Duketon Gold Project







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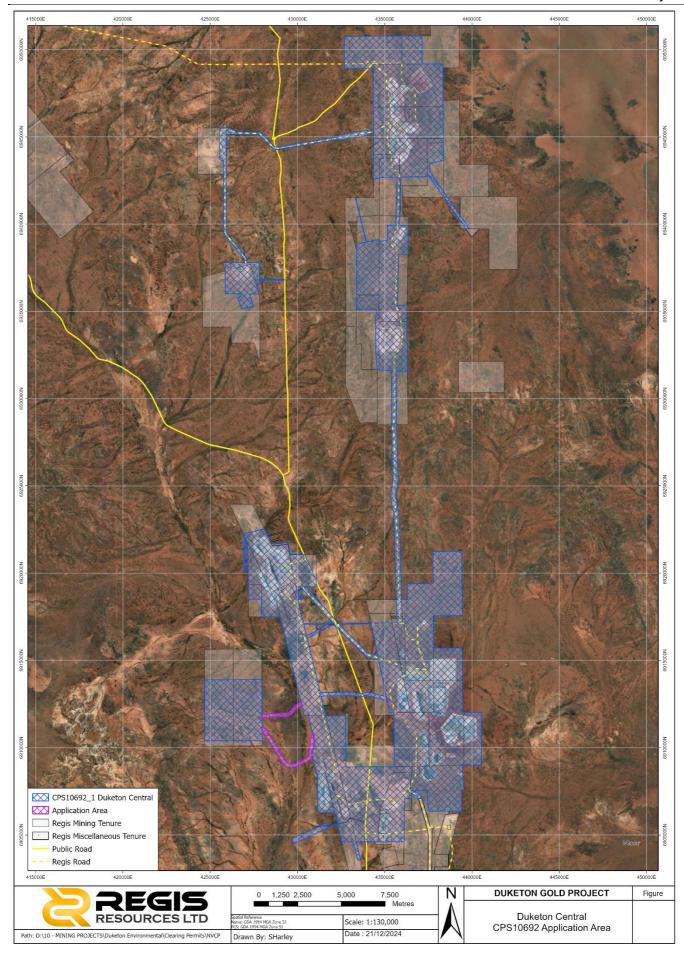


Figure 2: NVCP Application Area



#### **2. PROJECT DESCRIPTION**

#### **2.1. PREVIOUS ACTIVITIES**

The Duketon Gold Project covers much of the greenstone belt north of Laverton, in the Yilgarn Craton. Mining activities have occurred in this landscape since the early 1900s, with operations as part of Regis' Duketon Gold Project commencing in 2010. The Duketon Gold Project mine sites/project areas that relate to this clearing permit application include Moolart Well, Anchor, Coopers/Dogbolter, Petra, Rosemont, Baneygo, Garden Well, Tooheys Well/Beamish, Erlistoun, King John, Pleco and Ventnor.

This amendment application is to allow for inclusion of two recently granted miscellaneous licences L38/391 and L38/392, which will enable for the Duketon haul road network to connect to the King John project area. This amendment application aims to detail the current environmental setting, the proposed disturbance and project impacts and management methods that are relevant to these areas.

#### 2.2. PROJECT DESCRIPTIONS FOR THE AMENDMENT APPLICATION

#### 2.2.1. LOCATION

The Duketon Gold Project occurs between ~50 and 125 km north of Laverton. The extent of the existing permit area is between 75 and 125 km north of Laverton (Figure 1). The King John haulage route is approximately 90 km northwest of Laverton. The new areas within this amendment application are bounded to the west and the east by CPS10692/1 permit area.

#### 2.2.2. DESCRIPTION OF CHANGES

#### King John Haulage Network (L38/391 + L38/392)

Development of a haulage links on L38/391 and/or L38/392 will assist in connecting the King John project area to Regis' processing facilities. Infrastructure will consist of a haul road, water pipeline (with allowance for bunding), turkey nests, and borrow pits. The clearing permit envelope will increase by 156 ha.

L38/391 and L38/392 have not been previously considered in a permit application. No additional allowance is required to provide for the proposed disturbance.

#### 2.2.3. SITE PREPARATION AND CLEARING

Vegetation will be cleared for development of turkey nests, surface water infrastructure, and other general mine infrastructure. During clearing, topsoil will be stripped and stockpiled for use in future rehabilitation.

#### 2.2.4. REHABILITATION

Regis has an active programme to rehabilitate areas once mining activities have been completed. Management procedures have been developed for rehabilitation of disturbed areas and are outlined in Section 4.

Regis submitted a Mine Closure Plan (MCP) for the Duketon Gold Project in November 2024, associated with Duketon Gold Project Mining Proposal Version 12. The most recently approved MCP was approved by DEMIRS in June 2024 associated with DGP Mining Proposal Version 11.

#### **3. REGIONAL ENVIRONMENTAL SETTING**

#### **3.1. NATURAL ENVIRONMENT**

The Duketon Gold Project (DGP) is in the Murchison biogeographic region (bioregion) of the Interim Biogeographic Regionalisation for Australia (IBRA). The Murchison bioregion is subdivided into the East Murchison (MUR 1) and West Murchison (MUR 2) subregions.

The DGP is in MUR 1 containing the northern parts of the Southern Cross and Eastern Goldfields' terrains of the Yilgarn Craton. The subregion is characterised by expansive elevated red desert sandplains with minimal dune development, internal drainage and salt lakes, which are associated with the occluded palaeodrainage system. Red-brown soils dominate



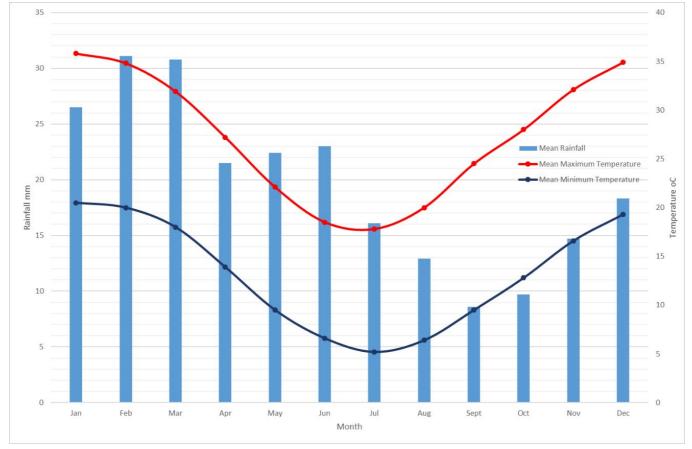
the terrain forming broad plains and breakaway complexes. Vegetation of this region typically consists of Mulga Woodlands rich in ephemeral grass and shrub communities, specifically, hummock grasslands, saltbush shrublands and *Halosarcia* shrublands (Cowan, 2001).

#### **3.2. CLIMATE**

The climatic region within which the DGP is located is classified as desert, being described as arid, with rainfall averaging less than 250 mm a year (Beard, 1990). Rainfall occurs over summer and winter months and is sporadic with no month being reliably wet or dry (Beard, 1990).

The nearest meteorological station is located at Laverton. The average monthly maximum and minimum temperatures and the average monthly rainfall recorded for Laverton are shown on Figure 3.

The mean maximum monthly temperature at Laverton ranges from 17.8 °C in July to 35.8 °C in January, with the median precipitation being 212 mm per year (Bureau of Meteorology, BoM, 2024). The mean number of rain days receiving >1 mm for Laverton is 29.6 per year.



#### Figure 3: Mean Maximum and Minimum Temperatures and Precipitation at Laverton

#### **3.3. GEOLOGY, SOILS AND TOPOGRAPHY**

The Eastern Goldfields region is underlain by rocks of the Yilgarn Craton which are mostly Archaean granitic rocks, often intruded by quartz veins and dolerite dykes. Areas of Archaean migmatite and gneiss are associated with Archaean greenstone belts, which contain a mix of metamorphosed mafic-ultramafic and felsic volcanics and metasediments. The Archaean bedrock has been extensively weathered and is often covered by Tertiary and Quaternary alluvial, colluvial and Aeolian deposits (Beard 1990; Tille 2006).



Topographically, it comprises undulating low hills and extensive sandplains in the eastern half. Soils are predominantly shallow earthy loam overlying red-brown hardpan; shallow stony loams on hills and red earthy sands on the plains (Beard, 1990).

In more recent times, mapping of soils and landscapes has become available at a greater level of detail. The Department of Primary Industries and Regional Development (DPIRD), in its "Soil-landscapes of Western Australia's Rangelands and Arid Interior" (Tille, 2006), describes a range of soil-landscape mapping units. The project falls within the Salinaland Plains Zone of the Murchison Province. The Salinaland Plains Zone is characterised by:

- Sandplains (with hardpan wash plains and some mesas, stony plains and salt lakes) on granitic rocks (and some greenstone) of the Yilgarn Craton.
- Red sandy earths, red deep sands, red shallow loams and red loamy earths with some red-brown hardpan shallow loams, salt lake soils and red shallow sandy duplexes.
- Mulga shrublands with spinifex grasslands (and some halophytic shrublands and eucalypt woodlands).

#### **3.4. LAND SYSTEMS**

The Austin Botanical District is the largest of the Eremaean regions and is essentially Mulga (*Acacia aneura*) woodlands associated with red loams over siliceous hardpans on the plains reducing to scrub on the rises and hills (Pringle *et al.*, 1994). This botanical district is also comprised of Mulga and *Eremophila* (Chenopod) shrublands which dominate on stony plains and chenopod communities are more often associated with duplex soils (Pringle *et al.*, 1994).

Land system mapping of the northeastern Goldfields, including the survey area has been prepared by DPIRD (Pringle *et al.*, 1994). This mapping sought to define the topographic characteristics of the northeastern Goldfields. Land systems are grouped into land types according to a combination of landforms, soils, vegetation and drainage patterns. Pringle *et al.* (1994) found that boundaries between plant communities are often sharp and mostly associated with boundaries between landforms and their soils along the slope of the land. Greater diversity in plant communities is often found higher in the landscape where differential weathering and erosion occurs across slope.

Land systems within the extent of CPS10692 are shown in Table 2, with those relevant to areas added under this amendment application (L38/391 and L38/392) identified in bold type.



#### Purpose Permit CPS10692/1 Amendment Duketon Gold Project

	Table 2: Land Systems Associated with Application Area. Land	Systems	specifica	ally releva	ant to th	e new a	dditions	to the ap	plicatior	n area ar	e noted i	in bold ty	ype.	
Land System	Land System Description	Moolart Well	Anchor	Coopers / Dogbolter	Petra	Rosemont	Baneygo	Garden Well	Tooheys Well / Beamish	Erlistoun	BRT Trend	King John	King John Haulage Network (L38/383)	King John Haulage Network (L38/391 + L38/392)
Ararak system	Broad plains with mantles of ironstone gravel supporting mulga shrublands with wanderrie grasses													
Bevon system	Irregular low ironstone hills with stony lower slopes supporting mulga shrublands													
Brooking system	Prominent ridges of banded iron formation supporting mulga shrublands and occasional minor halophytic communities													
Cunyu system	Calcrete platforms, intervening drainage floors and channels and minor alluvial plains, supporting acacia shrublands, occasional casuarina woodlands and minor halophytic shrublands													
Felix system	Gently undulating plains with quartz mantles, supporting acacia- eremophila shrublands locally with wanderrie grasses													
Hootanui system	Breakaways, hills and ridges with saline gravelly and stony lower plains supporting scattered halophytic low shrublands													
Jundee system	Hardpan plains with variable gravelly mantles and minor sandy banks supporting weakly groved mulga shrublands													
Nubev system	Gently undulating stony plains, minor limonitic low rises and drainage floors supporting mulga and halophytic shrublands													
Steer system	Gravelly alluvial plains supporting chenopod shrublands													
Teutonic system	Hills and stony plains on acid volcanic rocks supporting acacia shrublands													
Tiger system	Gravelly hardpan plains and sandy banks with mulga shrublands and wanderrie grasses													
Violet system	Gently undulating gravelly plains on greenstone, laterite and hardpan, with low stony rises and minor saline plains; supporting groved mulga and bowgada shrublands and occasionally chenopod shrublands													



#### **3.5. SURFACE WATER**

The Duketon Gold Project is located within the internally draining Salt Lake Basin (~441,000 km<sup>2</sup>), which extends across much of central Western Australia. The Salt Lake Basin comprises several large and broad sub-parallel southeast trending salt lake drainage systems which extend from a regional divide to the west of Wiluna/Sandstone and drain to either Ponton Creek (Raeside and Rebecca system) or terminate at the edge of sand plains (Carey/Minigwal system).

Moolart Well occurs within the Lake Carnegie catchment area (approximately 68,675 km<sup>2</sup>). Approximately 10-15 km south is the Lake Carey catchment area (113,780 km<sup>2</sup>) which comprises the remainder of the DGP with Anchor, Ventnor and Dogbolter/Coopers occurring near/on the catchment divide.

No significant river systems or Ramsar sites in the vicinity of the DGP. A named creek (Borodale Creek) occurs through the application area. This is an ephemeral creek and only carries water following prolonged periods of heavy rainfall. Whilst part of the overall Lake Carey catchment, Borodale Creek itself terminates at the southern end of lake Irwin as a series of poorly defined soaks.

#### **3.6. VEGETATION AND FLORA**

Much of the application area relating to this permit application has previously been administered by other clearing permits. A summary of the vegetation and values throughout this area will be provided as a broad overview, with a detailed summary for the two new project areas that have not previously been considered for disturbance.

Key flora and vegetation studies of relevance include:

- Mattiske Consulting Pty Ltd (2022) Detailed Flora and Vegetation Survey: King Jon, and Davies Bore Project Areas and Associated Haul Roads
- Mattiske Consulting Pty Ltd (2023) Detailed Flora and Vegetation Assessment Maverick and McKenzies Project Areas

Work was completed by Mattiske Consulting Pty Ltd in 2023 to integrate historical data from past surveys to the flora and vegetation database. This work included utilising this dataset to merge previous vegetation mapping at a regional scale.

• Mattiske Consulting Pty Ltd (2023) – Memorandum on Database and Merged Mapping

#### 3.6.1. THREATENED AND PRIORITY FLORA

No Threatened flora species pursuant to section 19 of the *Biodiversity Conservation Act* and as listed by the Department of Biodiversity, Conservation and Attractions (DBCA), or pursuant to section 179 of the EPBC Act or listed by the Department of Climate Change, Energy, the Environment and Water, have been recorded at the Duketon Gold Project.

The Priority Flora database was evaluated as part of 2023 Mattiske Consulting database review. The listed Priority flora species (Table 3) are as recorded across all surveys with the Mattiske review providing updated taxonomy and priority status.

Family	Species	Priority Status	No. of Locations
Chenopodiaceae	Einadia nutans subsp. Nutans	P3	2
Frankeniaceae	Frankenia georgei	P1	7
Myrtaceae	Calytrix praecipua	P3	2
Phyllanthaceae	Lysiandra baeckeoides	P3	6
Scrophulariaceae	Eremophila pungens	P4	165

 Table 3: Priority Flora Species Recorded at Duketon Gold Project

#### King John Haulage Network (L38/391 + L38/392)

One record of *Eremophila pungens* (P4) was identified within the southern portion of the application area. In total, this one record accounts for 2 individuals of this taxon.

*Eremophila pungens* (P4) is known from 45 records distributed across the Gascoyne, Murchison, and Great Victoria Desert IBRA regions (Plate 1), an area approximately 450km x 300km (WAH 1998-). Records of this taxon exist within several



#### Purpose Permit CPS10692/1 Amendment Duketon Gold Project

nature reserves, including both De La Poer Nature Reserve, and Wanjarri Nature Reserve. *Eremophila pungens* (P4) is widespread throughout the Duketon Gold Project, with this taxon being recorded on 165 occasions during flora surveys (Figure 4). Given the large distribution of *Eremophila pungens* (P4), prolific record across the Duketon Gold Project and its protection in two nature reserves, there are minimal risks to this taxon associated with the proposed development of the prospective haul road.

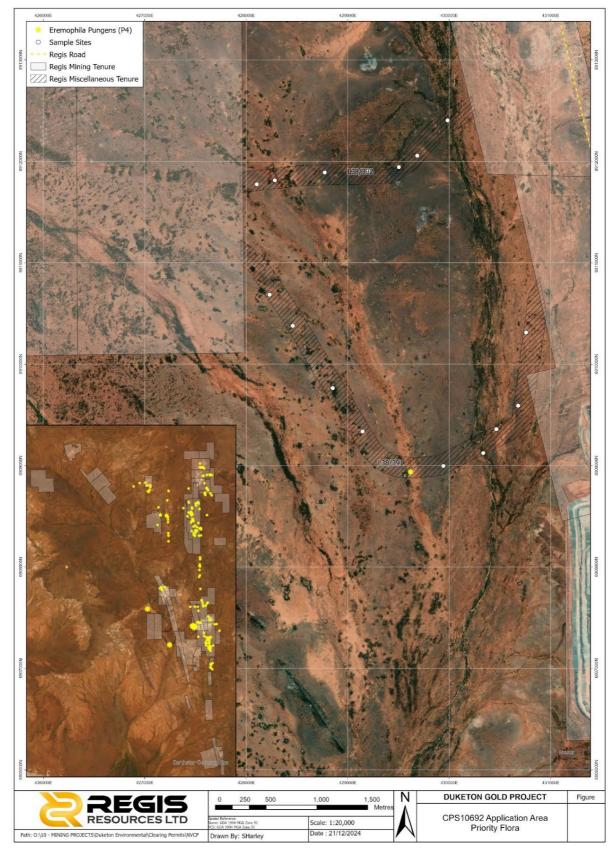


Figure 4: Distribution of Eremophila Pungens (P4) in the Application Area.



#### **3.6.2. VEGETATION ASSOCIATIONS**

In 2023, Mattiske Consulting Pty Ltd conducted a database review to standardise vegetation recording and mapping across the Duketon Gold Project.

A total of 21 vegetation communities were delineated across Regis Resources' Duketon tenements using the updated flora and vegetation database. A regional approach was taken when delineating vegetation associations across Regis Resources' Duketon tenements, to account for the large geographic area. This regional approach enabled 21 vegetation associations to be delineated in an area which had previously been described using 100 differing vegetation associations.

Preliminary splits in the data were based on contextual information ascribed to each site. This resulted in four distinctive groups of quadrats based on landform or dominant vegetation present. These groups were:

- chenopod flats,
- undulating Mulga flats,
  - sparse (<20% vegetation coverage).
  - open shrublands (>20% vegetation coverage).
- ridgelines, and
- drainage lines.

No vegetation communities mapped within the Duketon tenements are spatially restricted. While some vegetation units occupy a small area within Regis Resources' Duketon tenements, similar vegetation assemblages are known to be regionally abundant (Beard 1990; Cowan 2001). All vegetation communities delineated are consistent with those previously mapped at a local level across Regis Resource's Duketon tenements (Mattiske Consulting 2009-2022b; OES 2007; MAIA 2013; HGM 1998), and at a regional level (Beard 1990; Cowan 2001).

Group	Area %	Vegetation Communities of the previously approved application area							
		A1	Tall open shrubland of Acacia section Juliflorae, over mid-sparse shrubland of Acacia tetragonophylla, Senna artemisioides, and Acacia burkittii, over low-sparse shrubland of Ptilotus obovatus, Sida ectogama, and Solanum lasiophyllum on undulating	1.4%					
		A2	Tall open shrubland of Acacia section Juliflorae, over mid-sparse shrubland of Acacia tetragonophylla, Eremophila margarethae, and Psydrax suaveolens, over low sparse shrubland of Dianella revoluta, Solanum lasiophyllum, and Eragrostis setifolia on	2.6%					
Undulating Mulga Flats	26 10/	A3	Tall open shrubland of Acacia section Juliflorae, over Acacia tetragonophylla, Psydrax suaveolens, and Eremophila latrobei, over Eragrostis eriopoda, Solanum lasiophyllum, and Eriachne mucronata undulating red clay flats	4.2%					
with >20% vegetation coverage	26.1%	A4	Tall open shrubland of Acacia section Juliflorae and Grevillea berryana, over mid- sparse shrubland of Acacia ramulosa, Eremophila latrobei, and Psydrax suaveolens, over low-sparse shrubland of Eremophila forresii, Ptilotus obovatus, and Eragrostis	10.5%					
_		A5	Tall open shrubland of Acacia section Juliflorae, and Acacia quadrimarginea, over mid-sparse shrubland of Acacia tetragonophylla, Senna artemisioides, and Eremophila galeata, over low-sparse shrubland of Ptilotus obovatus, Solanum lasiophyllum, and	5.9%					
		A6	Tall open shrubland of Acacia section Juliflorae over mid-sparse shrubland of Acacia tetragonophylla, Acacia burkittii, and Eremophila oldfieldii, over low- sparse shrubland of Aristida contorta, Solanum lasiophyllum, and Ptilotus obovatus on undula	1.4%					
	21.6%	Α7	Mid-sparse shrubland of Acacia section Juliflorae, over low-sparse tussock grassland of Eragrostis eriopoda, Eriachne mucronate, and Solanum lasiophyllum on undulating red clay flats	0.2%					
Undulating Mulga Flats with <20%		A8	Mid-sparse shrubland of Acacia section Juliflorae, Acacia tetragonophylla, and Senna artemisioides, over low-sparse shrubland of Ptilotus obovatus, Solanum lasiophyllum, and Aristida contorta on undulating red clay flats	3%					
vegetation coverage		A9	Mid-sparse shrubland of Acacia section Juliflorae, Acacia quadrimarginea, and Acacia tetragonophylla, over low-sparse shrubland of Ptilotus obovatus, Dianella revoluta, and Eragrostis setifolia on undulating red clay flats	4.1%					
		A10	Mid-sparse shrubland of Acacia section Juliflorae, Acacia tetragonophylla, and Eremophila galeata, over Eremophila latrobei, Ptilotus obovatus, and Eragrostis eriopoda on red clay flats	14.4%					
		C1	Mid-isolated shrubland of Acacia tetragonophylla, over low-sparse chenopod shrubland of Maireana triptera, Tecticornia pergranulata, and Maireana villosa on orange-red sandy clay flats	0.8%					
Chenopod Shrublands	11.4%	C2	Mid-isolated shrubland of Hakea preissii, over low-sparse chenopod shrubland of Cratystylis subspinescens, Frankenia fecunda, and Maireana pyramidata on orange-red sandy clay flats	5.9%					
		C3	Mid-sparse shrubland of Hakea preissii, Senna artemisioides, and Acacia tetragonophylla, over low-sparse shrubland of Cratystylis subspinescens, Sclerolaena cuneata, and Ptilotus obovatus on orange-red sandy clay flats	0.6%					

#### Table 4: Vegetation communities of the previously approved application area



#### Purpose Permit CPS10692/1 Amendment Duketon Gold Project

-		1		
		C4	Mid-sparse shrubland of Hakea preissii and Senna artemisioides, over low-sparse chenopod shrubland of Maireana carnosa, Maireana pyramidata, and Eragrostis dieslsii on orange-red sandy clay flats	2.2%
		C5	Mid-isolated shrubland of Acacia section Juliflorae, over low-sparse chenopod shrubland of Maireana pyramidata, Maireana triptera, and Ptilotus obovatus on orange-red sandy clay flats	1.8%
		D1	Tall-open shrubland of Acacia section Juliflorae, over mid-open shrubland of Acacia tetragonophylla, Acacia craspedocarpa, and Psydrax suaveolens, over low-open shrubland of Dianella revoluta, Ptilotus obovatus, and Cheilanthes sieberi on red clay	5.7%
	9.2%	D2	Tall-open shrubland of Acacia section Juliflorae, over mid-open shrubland of Acacia tetragonophylla, Acacia craspedocarpa, and Senna artemisioides, over low-open shrubland of Ptilotus obovatus, Solanum lasiophyllum, and Cheilanthes sieberi on red c	1.3%
Drainage Lines		D3	Tall-open shrubland of Pittosporum angustifolium and Acacia section Juliflorae, over mid- open shrubland of Acacia burkittii, Acacia tetragonophylla, and Senna artemisioides, over low-sparse chenopod shrubland of Frankenia fecunda, Scaevola spinesce	1.9%
		D4	Mid-open shrubland of Acacia burkittii, Acacia tetragonophylla, and Senna artemisioides, over low-sparse chenopod shrubland of Maireana pyramidata, Tecticornia pergranulata, and Solanum lasiophyllum on orange-red sandy clay soils in minor drainage l	0.1%
		D5	Tall-open shrubland of Acacia section Juliflorae, over mid-open shrubland of Acacia tetragonophylla, Senna artemisioides, and Acacia craspedocarpa, over low- sparse chenopod shrubland of Rhagodia Eremaea, Maireana villosa, and Ptilotus obovatus on	0.2%
Ridgelines	0.5%	R1	Tall-sparse shrubland of Acacia section Juliflorae, Acacia quadrimarginea, and Grevillea berryana, over mid-sparse shrubland of Eremophila punctata, Eremophila latrobei, and Senna artemisioides, over low-isolated tussock grassland on skeletal red c	0.5%
Cleared Land Due to pastoral tr	acks, cattle §	grazing a	nd mining activities (disturbed under approved clearing permits)	31.2%

#### King John Haulage Network (L38/391 + L38/392)

The application area contains eight vegetation associations, out of the fourteen vegetation associations that were recorded in the 2022 King John/Davies Bore survey and 2023 Maverick/McKenzies survey.

#### Table 5: Vegetation Associations at King John Haulage Network (L38/391 + L38/392)

Vegetation Association Code	Description	Mapped Area
A24	Mid-open shrubland of Acacia tetragonophylla, and A. burkittii over low-open shrubland of Ptilotus obovatus, Rhagodia eremaea, and Maireana villosa on clay loams with quartz and ironstone pebbles in seasonal wet flats	7.6
A5	Acacia section Juliflorae (Acacia aneura and Acacia aptaneura ) tall-open shrubland over mid- sparse shrubland of Acacia tetragonophylla, Hakea preissii, and Senna artemisioides over low sparse shrubland of Ptilotus obovatus, Sida ectogama, and Cheilanthes sieberi on undulating red clay flats with ironstone and guartz pebbling	6.5
C2	Hakea preissii and Eremophila platycalyx mid-sparse shrubland over low-sparse chenopod shrubland of Maireana triptera, Sclerolaena cuneata , and Cratystylis subspinescens on undulating red-orange, sandy-clay flats with quartz pebbling	30.6
C5	Acacia section Juliflorae (Acacia aptaneura ), Eremophila youngii, and Hakea preissii mid-sparse shrubland over low-sparse chenopod shrubland of Maireana pyramidata, Sclerolaena cuneata, and Maireana triptera on undulating red-orange, sandy-clay flats with ironstone and quartz pebbling	2.4
CH2	Low-sparse chenopod shrubland of Sclerolaena cuneata, Maireana villosa, and Cratystylis subspinescens on clay flats with large quartz and ironstone pebbles	90.0
D1	Acacia section Juliflorae (Acacia aneura and Acacia aptaneura ), and Acacia craspedocarpa tall- open shrubland over mid-open shrubland of Acacia tetragonophylla, Acacia burkittii, and Senna artemisioides over low-open shrubland of Ptilotus obovatus, Solanum lasiophyllum, and Cheilanthes sieberi on red clay soils in minor drainage lines	4.7
D3	Acacia section Juliflorae (Acacia aneura and Acacia aptaneura) tall-open shrubland over mid- sparse shrubland of Acacia burkittii, Eremophila youngii, and Senna artemisioides over low- sparse chenopod shrubland of Maireana pyramidata, Sclerolaena cuneata, and Frankenia fecunda on red-orange, sandy-clay soils in minor drainage lines	9.4
R1	Acacia section Juliflorae (Acacia aneura and Acacia aptaneura ) and Acacia oswaldii tall-sparse shrubland over mid-sparse shrubland of Senna artemisioides and Acacia tetragonophylla over low sparse shrubland of Ptilotus obovatus on skeletal red clay soil on ironstone ridgelines	1.0





Figure 5: Vegetation Associations at King John Haulage Network (L38/391 + L38/392)



#### **3.6.3. VEGETATION CONDITION**

Regionally, vegetation condition across the DGP generally in very good to excellent condition. Localised examples of disturbance due to historic mining, pastoral station livestock grazing, or exploration do occur throughout Regis tenements, although these are relatively small areas.

Of the new areas considered in this application, a summary of vegetation condition is provided below:

• King John Haulage Network (L38/391 + L38/392) - Vegetation is either good or very good.

#### **3.6.4. RIPARIAN VEGETATION**

Ephemeral drainage lines occur across the DGP landscape, which typically only flow after sustained heavy rainfall such as remnants of ex-tropical cyclones. No wetlands exist within the area under application.

The closest vegetation associations to riparian vegetation are those associated with ephemeral drainage lines are D1 and D3. Both vegetation communities relate to drainage associated with Borodale Creek, an ephemeral creek that only flows during periods of heavy rainfall.

#### **3.6.5. THREATENED ECOLOGICAL COMMUNITIES**

No Threatened Ecological Communities (TECs), pursuant to Schedule 1 of the *Biodiversity Conservation Act 2016* and as listed by the DBCA were recorded within any of the project survey areas. Similarly, no Priority Ecological Communities (PEC) have been recorded in the application areas. The most proximal PEC is the Laverton Downs Calcrete, which is over 30km to the south of the application area.

#### **3.7. VERTEBRATE FAUNA**

Regis has commissioned several fauna surveys and assessments which are applicable to this application, with the most relevant to the new application areas listed below:

- Basic and detailed vertebrate fauna survey and risk assessment Northern Project Areas. (Terrestrial Ecosystems 2023)
- Basic vertebrate fauna survey and risk assessment Maverick and McKenzie Project Areas (Terrestrial Ecosystems 2023)

These surveys partially cover and bound the western and eastern extents of the application area and are representative of both the fauna habitat present and for reviewing the potential for conservation significant species.

#### **3.7.1. HABITATS PRESENT**

Across the Duketon Gold Project, the landscape is dominated by Mulga/Acacia woodlands and Chenopod scrublands as the primary fauna habitat. Other habitat types across the Duketon Gold Project include:

- Disturbed areas around mine pits
- Rehabilitated waste dumps.
- Rocky outcrops.

#### King John Haulage Network (L38/391 + L38/392)

There is one broad fauna habitat in the project area - mulga woodland mostly over sparse shrubs and grasses. Interspersed in this habitat are numerous disturbed areas due to exploration drilling activity and previous mining.

#### 3.7.2. CONSERVATION SIGNIFICANT SPECIES POTENTIALLY PRESENT

Table 8 identifies conservation significant species assessed to have some potential both across the DGP and in the new areas being considered under this application.



Table 6: Current Conservation Significant Species potentially present in the Application Areas.					
Species	Conservation Significance	Duketon Gold Project surrounding area	Central Duketon Application Area	King John Haulage Network (L38/391 + L38/392) Application Area	
Malleefowl	BC Act Vulnerable EPBC Act Vulnerable	Malleefowl tracks were recorded in the Terminator project area, the first record since surveys commenced (2008). Believed to be a vagrant from outside of the DGP. Abundance very low and no mounds have been recorded.	Very low probability. Tracks for a single individual located ~20 km to the west	Very low probability. Tracks for a single individual located ~50 km to the northwest.	
Princess Parrot	BC Act Vulnerable EPBC Act Vulnerable	May infrequently be seen in the region.	May occasionally to infrequently be seen	May infrequently be seen.	
Fork-tailed Swift	BC Act Migratory EPBC Migratory	May very infrequently be seen. Clearing vegetation is unlikely to impact on this aerial species.	May infrequently be seen flying	May very infrequently be seen flying.	
Peregrine Falcon	BC Act Other Specially Protected	May infrequently be seen. Clearing vegetation is unlikely to impact on this species.	May infrequently be seen flying	May infrequently be seen.	
Southern Whiteface	BC Act Vulnerable EPBC Act Vulnerable	Potentially present. Has been recorded further north of the DGP	Low probability. Recorded ~10 km to the north	Not commented on but likely to be potentially present in the project area but it will readily move.	
Long-tailed Dunnart	DBCA – Priority 4	Single Long-tailed Dunnart was recorded in Thompson Bore. There is no 'recognised' suitable habitat in this project area, so it is likely to be a vagrant.	Low possibility of being present in rocky areas.	No recognised suitable habitat presents in the survey area. Tracks for a single individual located ~50 km to the northwest	
Brush-tailed Mulgara	DBCA – Priority 4	Highly unlikely due to a lack of suitable habitat (mature spinifex dominated habitat).	Highly unlikely due to a lack of suitable habitat.	Highly unlikely to be present	



#### 3.7.3. HABITATS FOR CONSERVATION SIGNIFICANT FAUNA

From review of Table 8 in the context of the new areas under this application, Mulga woodlands are the dominant habitat in the application area. Conservation significant fauna to most likely use this habitat are avifauna listed in Table 8 such as the Southern Whiteface, whilst others make greater use of aerial habitat.

In terms of mammals of conservation significance, the presence of rocky outcrops is sporadic across the Duketon area. However, these are mostly too small to be sufficient to support existence of the Priority 4 Long-tailed Dunnart. Further to the South (between Garden Well and Laverton) are more extensive chains of rocky outcrop which provide greater habitat to support the Long-tailed Dunnart.

#### 4. PROJECT IMPACTS AND MANAGEMENT

#### 4.1. MANAGING ENVIRONMENTAL IMPACTS

Regis is committed to fulfilling its social and regulatory environmental responsibility. The company plans its mining activities to avoid or minimise impacts to environmental values.

Areas have been reviewed and assessed for potential impacts on the surrounding environment and Aboriginal heritage values.

Development activities will result in the direct loss of native vegetation through clearing. There is also potential for indirect losses from dust, competition from weeds, inadequate topsoil stripping and management and poor machinery control during rehabilitation.

Clearing of native vegetation can also directly affect fauna, i.e. deaths caused during clearing operations, and through the loss of habitat.

Management controls addressing each of these aspects are identified in the following sections.

#### 4.1.1. LAND CLEARING

No additional disturbance allowance has been requested as part of the amendment application. 950ha has been previously approved under CPS10692/1, which incorporates allowance for haulage networks between satellite projects. All management controls discussed in the CPS10692/1 permit application will be relevant to disturbance occurring on the proposed application area footprint.

#### 4.1.1.1. OBJECTIVES

- Avoid clearing of native vegetation wherever possible.
- Limit clearing of native vegetation to approved areas.
- Undertake activities in a manner to minimise adverse impacts to vegetation.
- Strip and stockpile topsoil for use in rehabilitation.

#### 4.1.1.2. MANAGEMENT CONTROLS

Management controls that relate specifically to land clearing are detailed below:

- Clearing is managed across the DGP via a clearing permit system. As part of the clearing permit system, proposed activities are checked against flora and fauna values, Priority flora locations, Aboriginal heritage, tenure and Mining Proposal footprints (for key mining activities).
- Inductions cover the importance of minimising vegetation clearing and disturbance.
- Areas to be cleared will be delineated on project drawings and defined in the field by survey using coloured flagging to indicate the extent of authorised clearing. The site representative, work area supervisor and equipment operator will walk the area to be cleared prior to the commencement of clearing. Conspicuous flagging will be used to identify clearing boundaries.
- Personnel involved in clearing activities will be informed about avoidance areas (flora, fauna, heritage areas and other features) and the conditions that apply to each area. All employees will be competent in managing potential risks to these sensitive areas.



The Survey Department undertake monthly reconciliations of:

- Area of land cleared in the past month.
- Progressive total area of land cleared.
- Locations of topsoil stockpiles.

#### 4.1.2. FLORA

No Priority or Threatened flora has been identified in past surveys across the DGP, however the Priority 4 species *Eremophila pungens* has been recorded in the road corridor for King John (on L38/391). Planning of the haul road has been designed to minimise impacts to *Eremophila pungens* present even though some will likely be disturbed. The following measures are designed to minimise adverse impacts on flora and vegetation within the project area and surrounds.

#### 4.1.2.1. OBJECTIVES

- Avoid impacts to native vegetation wherever possible.
- Limit disturbance of native vegetation to those areas necessary.
- Design infrastructure to minimise disturbance to Priority Flora species wherever possible.
- Mitigate impacts to native vegetation.
- Rehabilitate disturbance areas as soon as practicable.

#### 4.1.2.2. MANAGEMENT CONTROLS

Management controls that relate specifically to flora are detailed below:

- Internal clearing permits are developed, assessed and approved before clearing can commence (as described in section 4.1.1).
- Vegetation clearing will be minimised, with preferential use of previously disturbed or degraded areas where possible.
- Progressive rehabilitation will be undertaken as soon as practicable.
- Dust suppression will be regularly undertaken on high traffic roads to minimise potential dust related impacts on adjacent vegetation.

#### 4.1.3. INTRODUCED FLORA

#### 4.1.3.1. OBJECTIVES

• Prevent and minimise the introduction and spread of weeds within the project area.

#### 4.1.3.2. MANAGEMENT CONTROLS

Management controls that relate specifically to introduced flora are detailed below:

- All ground engaging, earthmoving and tracked equipment will be cleaned prior to arrival on site to remove all earth, stones or vegetative material, and prior to entering a weed free area to prevent the introduction of weeds, plants and plants and plant pathogens.
- All other general equipment, including light vehicles, will be presented to site in a clean state, free from soil or vegetative material.
- If substantial populations of weeds are identified, targeted weed spraying will be implemented.
- Work areas will be inspected for weeds on an ongoing basis.

#### 4.1.4. TOPSOIL AND REHABILITATION

Disturbed areas that are not rehabilitated, or inadequately rehabilitated, may result in long-term changes to the landscape through soil erosion and associated sedimentation, introduction of weeds and use of tracks to gain access to restricted areas.

#### 4.1.4.1. OBJECTIVES

- Meet legislative requirements with respect to the rehabilitation of relevant project sites and to liaise closely with Government bodies to ensure compliance.
- Maintain positive topsoil balances when planning topsoil stripping for new disturbance.
- Encourage re-establishment of self-sustaining ecosystems compatible with surrounding undisturbed areas.



#### 4.1.4.2. MANAGEMENT CONTROLS

Management controls that relate specifically to topsoil management and rehabilitation are detailed below:

- Topsoil will be stripped and stockpiled as part of clearing works.
- Topsoil will be removed to a depth of 100 mm to 300 mm, depending on the nature of the material and existing materials balance.
- Topsoil will be directly transferred to areas being rehabilitated where possible. Where this is not possible, topsoil will be stored in stockpiles for later use.
- Stockpiles will be no higher than 3 m and identified on a site plan.
- No burning of vegetation spoil will occur.
- All disturbed areas no longer required will be landformed and have topsoil applied.
- Where practicable, disturbed areas will be progressively rehabilitated.
- Disused compacted surfaces will be scarified to a depth of approximately 500 mm, along contour lines, should ground conditions and hydrology allow.
- Topsoil and vegetation will be respread over disused areas.
- Large rocks and logs will be placed in rehabilitation areas to simulate fauna habitats.
- Where appropriate, natural drainage patterns will be reinstated.
- Where the establishment of supplementary vegetation cover is necessary, local seed and plants will be used in site rehabilitation.
- The Survey Department undertake monthly reconciliations of:
  - Area of land cleared in the past month.
  - Progressive total area of land cleared.
  - Locations of topsoil stockpiles.

#### 4.1.5. SURFACE WATER

Regis undertakes project activities in a manner that minimises adverse impacts to ephemeral surface water quality and hydrology.

#### 4.1.5.1. OBJECTIVES

- Avoid impacts to the quality of surface water wherever possible.
- Minimise unavoidable impacts on the quality of surface water.
- Avoid unnecessary disturbance to natural surface water drainage.

#### 4.1.5.2. MANAGEMENT CONTROLS

Management controls that relate specifically to surface water are detailed below:

- Project design seeks to avoid interaction with drainage where possible. Where drainage interception is required, diversions, culverts, overflows and floodways will be designed to protect people and infrastructure from flooding risks and reintegrate drainage to the surrounding landscape.
- The establishment and construction of drainage structures will be monitored to ensure compliance with the design specifications.
- Diversions, culverts, overflows and floodways will be incorporated into road design to maintain close-to-natural drainage patterns.
- Pipelines will be buried or double hulled when crossing drainage features.

#### 4.1.6. FAUNA

Most fauna is expected to move into adjacent areas during clearing activities. The consequence will be that whilst some sedentary fauna may be lost, most will shift into neighbouring areas. Migrants increase competition for resources, which may result in the subsequent loss of migrants or local individuals who have been displaced. Impacts associated with clearing vegetation in the project area in a landscape or bioregion context on the vertebrate fauna are likely to be low as there are vast tracts of similar habitat in adjacent areas.



Conservation significant fauna is unlikely to be affected as previous fauna assessments have found habitat is too open for terrestrial conservation significant fauna, or in the case of avian species, are either aerial specialists occasional visiting habitats or opportunistically exploiting conditions (such as after heavy rainfall events).

#### 4.1.6.1. OBJECTIVES

- Minimise impacts to native fauna species during the works.
- Ensure conservation significant fauna are not adversely affected by the project.
- Minimise the spread of pest species.

#### 4.1.6.2. MANAGEMENT CONTROLS

Management controls that relate specifically to fauna are detailed below:

- Habitats with greater conservation value will be planned for avoidance where possible.
- Road kills, including those resulting from travel to and from project areas, will be removed from the road and reported as an environmental incident.
- All fauna deaths and feral animal sightings will be reported to the site environmental representative.
- No pets or other animals will be brought onto the site.
- Water storages will be fenced to prevent access by terrestrial fauna.
- Firearms will be prohibited on site.
- All trenches will be fitted with ramps (as appropriate), and will be filled/closed when no longer required, to avoid entrapment of fauna.
- An employee induction program outlining fauna and habitat of conservation significance will be implemented.

#### 5. COMPLIANCE

CPS10692/1 was issued on October 10, 2024, with a commencement date of November 2, 2024. Part III of the clearing permit outlines the record-keeping and reporting obligations associated with this approval. The required records include:

- 1(a): The location of the clearing, recorded using a GPS device set to Geocentric Datum Australia 1994 (GDA94), with coordinates expressed in Eastings and Northings.
- 1(b): The date the clearing occurred.
- 1(c): The size of the cleared area (in hectares).
- 1(d): Actions undertaken in compliance with Condition 4.
- 1(e): Measures implemented to avoid, minimize, and reduce the impacts and extent of clearing, as per Condition 5.
- 1(f): Steps taken to mitigate the risk of weed introduction and spread, in accordance with Condition 6.
- 1(g): Actions taken in line with Condition 7.

As of December 22, 2024, no clearing activities have been conducted under CPS10692/1. In line with the reporting requirements of Part III, a report will be submitted by July 31, 2025, covering clearing activities undertaken between December 23, 2024, and June 30, 2025.

#### **6. CLEARING PRINCIPLES**

An assessment of the disturbance identified in this application has been made against the ten Principles for Native Vegetation Clearing (Table 9).



	Table 7: Assessment of the Proposal Against the Ten Clearing Principles				
	Clearing Principle	Assessment	Discussion		
1	Native vegetation should not be cleared if it comprises a high level of biological diversity	Proposal is not at variance to this principle	Comparison of aerial photography of the survey area and surrounding areas suggests the area under application is typical of the vegetation throughout the region. Cowan (2001) states that the Eastern Murchison subregion is rich and diverse in both flora and fauna however most species are wide ranging and usually occur in at least one, and often several, adjoining sub regions. Additionally, Beard states the Murchison is essentially the Mulga region of Western Australia and those conditions within the Murchison region favour Mulga more generally than in any other part of Western Australia. Although the proposed disturbance areas will clear vegetation rich in flora, from a regional context, the vegetation within the project area is well represented within the local and broader region. The extent of the disturbance footprint is adjacent to or between existing mine sites.		
2	Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.	Proposal is not at variance to this principle	Although the proposed clearing areas will comprise habitat that may be suitable for fauna indigenous to Western Australia, from a regional context, the vegetation associations within the project area are well represented within the broader region. Terrestrial Ecosystems have identified the conservation significant fauna with the greatest likelihood occurring (on the basis of occasional, infrequent or potential presence) are avifauna including Peregrine Falcon, Southern Whiteface, Fork-tailed Swift and Princess Parrot.		
3	Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, Threatened flora.	Proposal is not at variance to this principle	No Threatened flora species pursuant to section 19 of the <i>Biodiversity Conservation Act</i> and as listed by the Department of Biodiversity, Conservation and Attractions, or pursuant to section 179 of the EPBC Act or listed by the Department of Climate Change, Water, Energy, the Environment and Water, were recorded near the project area by Mattiske Consulting Pty Ltd (2009 to 2023).		
4	Native vegetation should not be cleared if it comprises the whole or part of, or is necessary for the maintenance of a Threatened Ecological Community.	Proposal is not at variance to this principle	No Threatened Ecological Communities have been recorded from any surveys across the Duketon Gold Project.		
5	Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.	Proposal is not at variance to this principle	The area under application is not considered significant as extensive areas nearby and within the project area remain uncleared. Surveys conducted by Mattiske Consulting Pty Ltd determined that the application area is typical of the vegetation throughout the region. The area under application coincides with pastoral leases where grazing has already occurred to varying degrees. Some areas which form part of this application have past history of disturbance associated with mining or are adjacent to current mining operations.		



	Clearing Principle	Assessment	Discussion		
6	Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.	Proposal is unlikely to be at variance to this principle	Ephemeral drainage lines exist within the area under application but only flow following sustained heavy rainfall events, particularly after cyclonic rain and hence are unlikely to be at variance with this principle. These channels remain dry for most of the year. No wetlands exist within the area under application.		
7	Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	Proposal is not at variance to this principle	Apart from cleared areas previously disturbed by mining and their immediate surrounds, the application area ranges from Poor to Pristine condition (using the criteria of Keighery 1994). In the most part, vegetation in the application area is either Good or Very Good. The area under this application includes areas with past mining and where grazing of cattle has occurred at varying intensities. The surrounding vegetation, outside of the project area is generally in Very Good to Excellent condition and accurately reflects the vegetation on the outer boundaries of the project area. Therefore, clearing of the vegetation within the project area is unlikely to cause appreciable land degradation.		
8	Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.	Proposal is not at variance to this principle	The De La Poer Range Nature Reserve (Reserve No. 41831) is the closest reserve in the area (approximately 40 km northwest of the northern boundary of the CPS10692/1 permit area). No impacts on the environmental values of the reserve will occur as a result of clearing in the area under application due to the distance from the proposed activities.		
9	Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface and underground water.	Proposal is unlikely to be at variance to this principle	Vegetation associations that occur on minor ephemeral drainage lines within the application area receive surface water flows following large storms or cyclonic systems, which is itself often of poor quality due to high intensity. Impacts from proposed clearing activities should be minimised to minimise impacts to water quality.		
10	Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.	Proposal is not at variance to this principle	The area under application occurs on flat, landscape where flooding occurs following heavy rainfall, typically from cyclonic systems. Borodale Creek is the main ephemeral drainage line in the area but its flooding is dictated by episodic heavy rainfall rather than landscape features.		



#### **7. REFERENCES**

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# **APPENDICES**



# **APPENDIX 1:** TENEMENT SUMMARY REPORTS FOR L38/391 AND L38/392





# MINING TENEMENT SUMMARY REPORT

#### **MISCELLANEOUS LICENCE 38/391**

Status: Live

#### TENEMENT SUMMARY

Area: 105.42673 HA

Death Reason : Death Date :

Mark Out : N/A

Received : 01/07/2024 15:27:31

Term Granted : 21 Years

Commence : 08/11/2024

Expiry : 07/11/2045

#### **CURRENT HOLDER DETAILS**

#### Name and Address

REGIS RESOURCES LIMITED HETHERINGTON EXPLORATION & MINING TITLE SERVICES, C/- HETHERINGTON EXPLORATION & MINING TITLE SERVICES, SUITE 404, GROUND FLOOR, 50 ST GEORGES TERRACE, PERTH, WA, 6000, xxxxx@hemts.com.au, xxxxx977

#### DESCRIPTION

Locality: Datum: Boundary:						
	mE Thence 6910434.54 mN 428352.87 mE Thence 6910918.31 mN 428026.43 mE Thence 6910973.88 mN 427949.39 mE Back to datum					
Area :	<b>Type</b> Granted Applied For	Dealing No		Start Date 08/11/2024 01/07/2024	<b>Area</b> 105.42673 HA 105.43000 HA	
	SHIRE DETAILS					
<b>Shire</b> LAVERTON	N SHIRE	<b>Shire No</b> 4970	<b>Start</b> 01/07/2024	End	<b>Area</b> 105.42673 HA	

Due For Year End 07/11/2025: PAID IN FULL Due For Year End 07/11/2026: \$2,798.40

#### **EXPENDITURE STATUS**

Expended Year End : Current Year Commitment : NO EXPENDITURE REQUIRED





# MINING TENEMENT SUMMARY REPORT

#### **MISCELLANEOUS LICENCE 38/392**

Status: Live

#### TENEMENT SUMMARY

Area: 51.10950 HA

Death Reason : Death Date :

Mark Out : N/A

Received : 01/07/2024 15:27:31

Term Granted : 21 Years

Commence : 08/11/2024

Expiry : 07/11/2045

#### **CURRENT HOLDER DETAILS**

#### Name and Address

REGIS RESOURCES LIMITED HETHERINGTON EXPLORATION & MINING TITLE SERVICES, C/- HETHERINGTON EXPLORATION & MINING TITLE SERVICES, SUITE 404, GROUND FLOOR, 50 ST GEORGES TERRACE, PERTH, WA, 6000, xxxxx@hemts.com.au, xxxxx977

#### DESCRIPTION Locality: King John Datum: All Coordinates are GDA 94 in Zone 51 Datum 6911890.58 mN 427937.21 mE Boundary: From datum Thence 6911962.39 mN 428568.18 mE Thence 6911977.64 mN 429390.10 mE Thence 6912072.33 mN 429541.60 mE Thence 6912376.86 mN 429800.72 mE Thence 6912615.88 mN 430161.41 mE Thence 6912637.54 mN 430221.94 mE Thence 6912442.47 mN 430268.24 mE Thence 6912226.09 mN 429933.69 mE Thence 6911926.70 mN 429680.12 mE Thence 6911912.74 mN 429663.51 mE Thence 6911788.61 mN 429464.11 mE Thence 6911778.42 mN 429426.71 mE Thence 6911762.61 mN 428580.13 mE Thence 6911689.90 mN 427938.82 mE Back to datum Area : Type **Dealing No Start Date** Area Granted 08/11/2024 51.10950 HA Applied For 01/07/2024 51.11000 HA SHIRE DETAILS Shire Shire No End Start Area LAVERTON SHIRE 4970 01/07/2024 51.10950 HA **RENT STATUS** Due For Year End 07/11/2025: PAID IN FULL

Due For Year End 07/11/2023. FAID IN FOR Due For Year End 07/11/2026: \$1,372.80 Expended Year End : Current Year Commitment : NO EXPENDITURE REQUIRED



# **APPENDIX 2:** CPS10692/1 PERMIT DOCUMENTATION



Our Ref: I Enquiries: K Email: k

DMS9563/2024 / CPS 10692/1 Karen Alvarado Rodriguez Tel: (08) 9222 3153 karen alvaradorodriguez@demirs.wa.gov.au

Malcolm Wealleans Environmental Manager Regis Resources Ltd Sent via email: <u>mwealleans@regisresources.com</u>

Dear Malcolm

## Permit to Clear Native Vegetation under the *Environmental Protection Act* 1986 Regis Resources Ltd – Duketon Gold Project (CPS 10692/1)

Please find attached your permit to clear native vegetation granted under s.51E of the *Environmental Protection Act 1986*. This authorisation gives you approval to clear, subject to certain terms, conditions or restrictions. A copy of your permit is now available for the public to view, as required by the regulations.

Read your permit carefully. If you do not understand your permit, contact this Department immediately. There are penalties for failing to comply with the requirements of your permit.

If you are aggrieved by a decision of the Department of Energy, Mines, Industry Regulation and Safety, an appeal may be lodged with the Minister for Environment. If you choose to appeal, it must be in writing, clearly setting out the grounds of your appeal, and received by the Minister for Environment within **21** days of being notified. More information on lodging an appeal is available from the Office of the Appeals Convenor on telephone (08) 6364 7990. Completed appeals should be posted or delivered to:

Office of the Appeals Convenor	Tel: (08) 6364 7990
Level 18, 197 St Georges Terrace	Email: admin@appealsconvenor.wa.gov.au
PERTH WA 6000	Web: www.appealsconvenor.wa.gov.au

Third parties may also appeal against the issue of this permit. Please note that clearing must not commence until the date stated on the permit (2 November 2024) or until notified on the outcome of any appeal. In addition, clearing must not commence until all other environmental approvals have been obtained.

Under Condition 9 of your permit to clear native vegetation, you are required to submit an annual clearing report. This clearing report should be forwarded to the General Manager Mine Closure and Environmental Services, Resource and Environmental Compliance Division, prior to the due date, via email to <u>nvab@demirs.wa.gov.au</u>.

Please also note that in undertaking the clearing authorised under this permit, the Permit Holder is to have regard to avoiding clearing, minimising clearing, and reducing the impacts of clearing on any environmental value.

Compliance with the terms, conditions or restrictions of this permit does not absolve the Permit Holder from responsibility for compliance with the requirements of all Commonwealth and State legislation.

Please be aware that Mining Leases 38/498, 38/499, 38/500, 38/589, 38/600, 38/601, 38/802, 38/837, 38/939, 38/1092 will expire prior to the expiration of the clearing permit. Should a renewal of the tenements not be granted by DEMIRS, any clearing permit granted will no longer be valid over that tenement.

I declare that I have no conflict of interest that prevents me from making a decision in relation to this proposal (in accordance with the Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) Conflict of Interest Policy).

If you have any queries regarding this decision, please do not hesitate to contact Karen Alvarado Rodriguez, Environmental Officer on (08) 9222 3153 or email <u>karen.alvaradorodriguez@demirs.wa.gov.au</u>.

Yours sincerely

# Danielle Risbey

**Danielle Risbey** | Acting General Manager Mine Closure and Environmental Services Resource and Environmental Compliance Division 10 October 2024

Officer with delegated authority under Section 20 of the *Environmental Protection Act 1986* 



# **Clearing Permit Decision Report**

## 1. Application details and outcomes

## 1.1. Permit application details

Permit number:	10692/1
Permit type:	Purpose Permit
Applicant name:	Regis Resources Limited
Application received:	22 July 2024
Application area:	950 hectares
Purpose of clearing:	Mineral production and associated activities
Method of clearing:	Mechanical Removal
Tenure:	Mining Leases 38/237, 38/250, 38/283, 38/292, 38/302, 38/303, 38/316, 38/317, 38/319, 38/343, 38/344, 38/352, 38/354, 38/407, 38/498, 38/499, 38/500, 38/589, 38/600, 38/601, 38/802, 38/837, 38/939, 38/940, 38/943, 38/1091, 38/1092, 38/1247, 38/1249, 38/1250, 38/1251, 38/1257, 38/1258, 38/1259, 38/1260, 38/1261, 38/1262, 38/1263, 38/1264, 38/1265, 38/1269, 38/1270, 38/1277
	Miscellaneous Licences 38/133, 38/156, 38/182, 38/201, 38/204, 38/216, 38/226, 38/239, 38/315, 38/316, 38/317, 38/318, 38/319, 38/348, 38/365, 38/383
Location (LGA area/s):	Shire of Laverton
Colloquial name:	Duketon Gold Project

#### 1.2. Description of clearing activities

Regis Resources Limited proposes to clear up to 950 hectares of native vegetation within a boundary of approximately 17,780 hectares, for the purpose of mineral production and associated activities. The project is located approximately 70 kilometres north of Laverton, within the Shire of Laverton.

The application is to allow for the expansion of the current mining footprint to develop new projects and construct a haul corridor and supporting infrastructure. This new permit will replace the existing clearing permit (CPS 9614/3). The new application includes new areas to be included and has excised some areas from the existing permit boundary see Figure 1 on section 1.5.

#### 1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	10 October 2024
Decision area:	950 hectares of native vegetation

## 1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed, and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) advertised the application for a public comment for a period of 21 days, and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (Appendix A), relevant datasets (Appendix E), supporting information provided by the applicant including the information of a flora and vegetation survey (Appendix D), the clearing principles set out in Schedule 5 of the EP Act (Appendix B), proposed avoidance and minimisation measures (Section 3.1), relevant planning instruments and any other matters considered relevant to the assessment (Section 3.3). The Delegated Officer also took into consideration that the majority of the application area is to replace the existing clearing permit CPS 9614/3.

The assessment identified that the proposed clearing may result in:

- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values;
- potential land degradation in the form of erosion; and
- potential impacts to riparian vegetation and water flows.

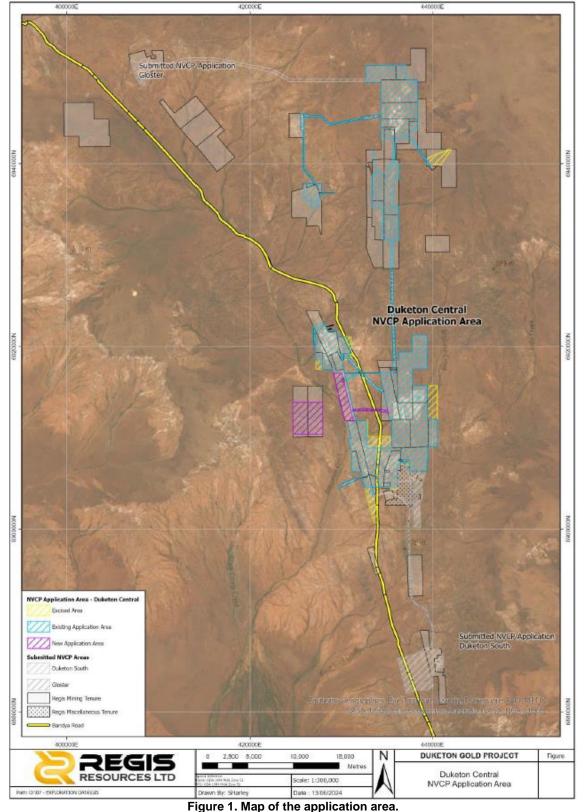
After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined the proposed clearing can be minimised and managed to be unlikely to lead to an unacceptable risk to environmental values.

The Delegated Officer decided to grant a clearing permit subject to conditions to:

- avoid, minimise to reduce the impacts and extent of clearing;
- take hygiene steps to minimise the risk of the introduction and spread of weeds;
- commence mineral production and associated activities no later than six months after undertaking clearing to reduce the risk of erosion; and
- avoid clearing riparian vegetation where possible and maintain water flows where watercourses are impacted.

## 1.5. Site map

A site map of proposed clearing is provided in Figure 1 below.



## 2. Legislative context

The clearing of native vegetation in Western Australia is regulated under the EP Act and the Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act (see Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity
- the principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

- Biodiversity Conservation Act 2016 (WA) (BC Act)
- Conservation and Land Management Act 1984 (WA) (CALM Act)
- Mining Act 1978 (WA)

The key guidance documents which inform this assessment are:

- A guide to the assessment of applications to clear native vegetation (DER, December 2014)
- Procedure: Native vegetation clearing permits (DWER, October 2021)
- Technical guidance Flora and Vegetation Surveys for Environmental Impact Assessment (EPA, 2016)
- Technical guidance Terrestrial Fauna Surveys for Environmental Impact Assessment (EPA, 2020)

## 3. Detailed assessment of application

#### 3.1. Avoidance and mitigation measures

To minimise impacts to the Priority flora species in the application area, the planned design of the road has veered around the two main clusters of *Eremophila pungens*. Whilst it is unlikely that all individuals will be avoided, a clear intent has been made to avoid where possible and minimise impact where necessary.

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values.

#### 3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix A) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values.

The assessment against the clearing principles (see Appendix B) identified the impacts of the proposed clearing are limited and able to be managed to be environmentally acceptable with standard avoid and minimise, hygiene and staged clearing management conditions.

#### 3.2.1. Biological values / Significant remnant vegetation and conservation areas / Land and water resources

#### <u>Assessment</u>

The application area is located within the East Murchison subregion of the Murchison Interim Biogeographic Regionalisation for Australia bioregion (GIS Database). The East Murchison subregion is characterised by internal drainage, extensive areas of elevated red desert sandplains with minimal dune development, salt lake systems associated with the occluded paleodrainage system, broad plains of red-brown soils and breakaway complexes, as well as red sandplains (CALM, 2002). Vegetation is dominated by Mulga woodlands which are often rich in ephemerals; hummock grasslands, saltbush shrublands and *Halosarcia tecticornia* shrublands (CALM, 2002).

Level 2 flora and vegetation surveys have been conducted by Mattiske Consulting Pty Ltd over the majority of the application area (Mattiske, 2016; 2017a; 2017b; 2023; Regis, 2024). No Threatened flora species were recorded within the application area, although five Priority flora species were identified within the broader survey area (Mattiske, 2023; Regis, 2024). Of the five Priority flora species, only one was recorded in the application area (*Eremophila pungens*). Given the large distribution of *E. pungens* and its protection in two nature reserves, there are minimal risks to this taxon associated with the proposed development of the prospective Rosemont to Garden Well haul road (Regis, 2024). This does not represent an extension to the current known populations of the priority flora, with populations being recorded in previous surveys within the Duketon Gold Project (Mattiske, 2016). Based on available survey data and records, large scale impacts to flora species of conservation significance (including Priority flora species) are considered unlikely, therefore it is not anticipated that the proposed clearing will adversely impact on Priority flora species at a population or species level.

The fauna habitats present within the application area are common and widespread in the landscape and bioregion, with vast tracts of similar habitat in adjacent areas (Regis, 2024; Terrestrial Ecosystems, 2023a; 2023b). The vegetation within the application area is not considered to be providing, or contributing to, important ecological linkages or fauna movement corridors (Terrestrial Ecosystems, 2023a; 2023b; GIS Database).

Fauna surveys conducted by Terrestrial Ecosystems (2023a; 2023b) did not record any conservation significant fauna in the application area. The conservation significant fauna with the greatest likelihood occurring are avifauna including peregrine

falcon, southern whiteface, fork-tailed swift and princess parrot (Regis, 2024). These aerial species are unlikely to be significantly impacted by the proposed clearing.

Numerous non-perennial watercourses have been mapped within the application area (GIS Database) and a number of the vegetation communities identified within the application area are considered to be growing in association with minor drainage lines (Mattiske, 2023; Regis, 2024). Potential impacts to vegetation growing in association with a watercourse or wetland as a result of the proposed clearing may also be minimised by the implementation of a watercourse management condition.

Fourteen land systems have been mapped within the application area; Ararak, Bevon, Brooking, Felix, Gransal, Hootanui, Jundee, Nubev, Steer, Sunrise, Teutonic, Tiger, Violet and Windarra (GIS Database). Several of these land systems are susceptible to erosion in areas where perennial shrub cover is substantially reduced or the soil surface is disturbed (Pringle et al., 1994). Potential land degradation as a result of the proposed clearing may be minimised by the continued implementation of a staged clearing condition.

#### **Conclusion**

Based on the above assessment, the proposed clearing may have on surface water flow, and there is potential for localised impacts associated with weeds and erosion if areas are cleared of vegetation. Weeds have the potential to significantly change the dynamics of a natural ecosystem and lower the biodiversity of an area. Potential impacts to the biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

#### **Conditions**

To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- A hygiene condition to minimise the risk of the introduction and spread of weeds
- A staged clearing condition to ensure that only areas that are needed are cleared at any one time.
- A watercourse management condition to minimise impacts to surface water flow.

#### 3.3. Relevant planning instruments and other matters

The clearing permit application was advertised on 13 August 2024 by the Department of Energy, Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

There are no native title claims over the area under application (DPLH, 2024). The mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are 26 registered Aboriginal Sites of Significance within the application area (DPLH, 2024). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

Other relevant authorisations required for the proposed land use include:

• A Mining Proposal / Mine Closure Plan approved under the Mining Act 1978.

It is the proponent's responsibility to liaise with the Department of Water and Environmental Regulation and the Department of Biodiversity, Conservation and Attractions, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

End

# Appendix A.

## Site characteristics

## A.1. Site characteristics

Characteristic	Details				
Local context	The area proposed to be cleared is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia. It is surrounded by the active Duketon Gold Project and the landscape of the Murchison Bioregion (GIS Database).				
Ecological linkage	According to a linkages (GIS			ses, the application area does not contain any known or mapped e	ecological
Conservation areas				is De La Poer Range Nature Reserve located approximately 20 ea (GIS Database).	kilometres
Vegetation description	18: Low woodl 39: Shrublands In 2023, Mattis and mapping a the application	and; mulg s; mulga s ske Consu across the area (Ma	a ( <i>Aca</i> crub (( lting P Duket ttiske,	on area is broadly mapped as the following Beard vegetation asso acia aneura); and GIS Database). Ity Ltd conducted a database review to standardise vegetation red ton Gold Project. The following vegetation communities are prese 2023): he previously approved application area (Duketon Gold Project)	cording nt within
	Group	Area %			Area %
	Group	Alea 20	A1	Tall open shrubland of Acacia section Juliflorae, over mid-sparse shrubland of Acacia tetragonophylla, Senna artemisioides, and Acacia burkittii, over low-sparse shrubland of Ptilotus obovatus, Sida ectogama, and Solanum lasiophyllum on undulating	1.4%
		A2	Tall open shrubland of Acacia section Juliflorae, over mid-sparse shrubland of Acacia tetragonophylla, Eremophila margarethae, and Psydrax suaveolens, over low sparse shrubland of Dianella revoluta, Solanum lasiophyllum, and Eragrostis setifolia on	2.6%	
	Undulating Mulga Flats	ts % 26.1%	A3	Tall open shrubland of Acacia section Juliflorae, over Acacia tetragonophylla, Psydrax suaveolens, and Eremophila latrobei, over Eragrostis eriopoda, Solanum lasiophyllum, and Eriachne mucronata undulating red clay flats	4.2%
	with >20% vegetation coverage		A4	Tall open shrubland of Acacia section Juliflorae and Grevillea berryana, over mid- sparse shrubland of Acacia ramulosa, Eremophila latrobei, and Psydrax suaveolens, over low-sparse shrubland of Eremophila forresii, Ptilotus obovatus, and Eragrostis	10.5%
			<b>A</b> 5	Tall open shrubland of Acacia section Juliflorae, and Acacia quadrimarginea, over mid-sparse shrubland of Acacia tetragonophylla, Senna artemisioides, and Eremophila galeata, over low-sparse shrubland of Ptilotus obovatus, Solanum lasiophyllum, and	5.9%
Undulating		A6	Tall open shrubland of Acacia section Juliflorae over mid-sparse shrubland of Acacia tetragonophylla, Acacia burkittii, and Eremophila oldfieldii, over low- sparse shrubland of Aristida contorta, Solanum lasiophyllum, and Ptilotus obovatus on undula	1.4%	
		A7	Mid-sparse shrubland of Acacia section Juliflorae, over low-sparse tussock grassland of Eragrostis eriopoda, Eriachne mucronate, and Solanum lasiophyllum on undulating red clay flats	0.2%	
	Mulga Flats with <20% vegetation	21.6%	A8	Mid-sparse shrubland of Acacia section Juliflorae, Acacia tetragonophylla, and Senna artemisioides, over low-sparse shrubland of Ptilotus obovatus, Solanum lasiophyllum, and Aristida contorta on undulating red clay flats	3%
	coverage		<b>A</b> 9	Mid-sparse shrubland of Acacia section Juliflorae, Acacia quadrimarginea, and Acacia tetragonophylla, over low-sparse shrubland of Ptilotus obovatus, Dianella revoluta, and Eragrostis setifolia on undulating red clay flats	4.1%

Characteristic	Details				
			A10	Mid-sparse shrubland of Acacia section Juliflorae, Acacia tetragonophylla, and Eremophila galeata, over Eremophila latrobei, Ptilotus obovatus, and Eragrostis eriopoda on red clay flats	14.4%
			C1	Mid-isolated shrubland of Acacia tetragonophylla, over low-sparse chenopod shrubland of Maireana triptera, Tecticornia pergranulata, and Maireana villosa on orange-red sandy clay flats	0.8%
			C2	Mid-isolated shrubland of Hakea preissii, over low-sparse chenopod shrubland of Cratystylis subspinescens, Frankenia fecunda, and Maireana pyramidata on orange-red sandy clay flats	5.9%
	Chenopod Shrublands	11.4%	СЗ	Mid-sparse shrubland of Hakea preissii, Senna artemisioides, and Acacia tetragonophylla, over low-sparse shrubland of Cratystylis subspinescens, Sclerolaena cuneata, and Ptilotus obovatus on orange-red sandy clay flats	0.6%
			C4	Mid-sparse shrubland of Hakea preissii and Senna artemisioides, over low-sparse chenopod shrubland of Maireana carnosa, Maireana pyramidata, and Eragrostis dieslsii on orange-red sandy clay flats	2.2%
			C5	Mid-isolated shrubland of Acacia section Juliflorae, over low-sparse chenopod shrubland of Maireana pyramidata, Maireana triptera, and Ptilotus obovatus on orange-red sandy clay flats	1.8%
		Drainage Lines 9.2%	D1	Tall-open shrubland of Acacia section Juliflorae, over mid-open shrubland of Acacia tetragonophylla, Acacia craspedocarpa, and Psydrax suaveolens, over low-open shrubland of Dianella revoluta, Ptilotus obovatus, and Cheilanthes sieberi on red clay	5.7%
			D2	Tall-open shrubland of Acacia section Juliflorae, over mid-open shrubland of Acacia tetragonophylla, Acacia craspedocarpa, and Senna artemisioides, over low-open shrubland of Ptilotus obovatus, Solanum lasiophyllum, and Cheilanthes sieberi on red c	1.3%
	-		D3	Tall-open shrubland of Pittosporum angustifolium and Acacia section Juliflorae, over mid-open shrubland of Acacia burkittii, Acacia tetragonophylla, and Senna artemisioides, over low-sparse chenopod shrubland of Frankenia fecunda, Scaevola spinesce	1.9%
			D4	Mid-open shrubland of Acacia burkittii, Acacia tetragonophylla, and Senna artemisioides, over low-sparse chenopod shrubland of Maireana pyramidata, Tecticornia pergranulata, and Solanum lasiophyllum on orange-red sandy clay soils in minor drainage l	0.1%
			D5	Tall-open shrubland of Acacia section Juliflorae, over mid-open shrubland of Acacia tetragonophylla, Senna artemisioides, and Acacia craspedocarpa, over low- sparse chenopod shrubland of Rhagodia Eremaea, Maireana villosa, and Ptilotus obovatus on	0.2%
	Ridgelines	0.5%	R1	Tall-sparse shrubland of Acacia section Juliflorae, Acacia quadrimarginea, and Grevillea berryana, over mid-sparse shrubland of Eremophila punctata, Eremophila latrobei, and Senna artemisioides, over low-isolated tussock grassland on skeletal red c	0.5%
	Cleared Land		·	nd mining activities (disturbed under approved clearing permits)	31.2%

Characteristic	Details				
	Vegetation Association Code	Description	Mapped Area		
	A5	Acacia section Juliflorae (Acacia aneura and Acacia aptaneura) tall-open shrubland over mid- sparse shrubland of Acacia tetragonophylla, Hakea preissii, and Senna artemisioides over low sparse shrubland of Ptilotus obovatus, Sida ectogama, and Cheilanthes sieberi on undulating red clay flats with ironstone and quartz pebbling	59.3		
	A8	Acacia section Juliflorae (Acacia aptaneura and Acacia minyura), Acacia tetragonophylla, and Acacia quadrimarginea mid-sparse shrubland over low-sparse shrubland of Sida ectogama and Ptilotus obovatus on undulating red clay flats with ironstone and quartz pebbling	39.0		
	A10	Acacia section Juliflorae Acacia aptaneura and Acacia minyura) Acacia tetragonophylla, and Senna artemisioides mid-sparse shrubland over low-sparse shrubland of Ptilotus obovatus and Sida fibulifera on undulating red clay flats with ironstone and quartz pebbling	9.4		
	C1	Acacia section Juliflorae (Acacia minyura and Acacia mulganeura) mid-sparse shrubland over low- sparse chenopod shrubland of Tecticornia pergranulata, Maireana pyramidata, and Sclerolaena cuneata on undulating red-orange, sandy clay flats with ironstone and quartz pebbling	23.7		
	C2	Hakea preissii and Eremophila platycalyx mid-sparse shrubland over low-sparse chenopod shrubland of Maireana triptera, Sclerolaena cuneata, and Cratystylis subspinescens on undulating red-orange, sandy- clay flats with quartz pebbling	162.7		
	C5	Acacia section Juliflorae (Acacia aptaneura), Eremophila youngii, and Hakea preissii mid-sparse shrubland over low-sparse chenopod shrubland of Maireana pyramidata, Sclerolaena cuneata, and Maireana triptera on undulating red-orange, sandy-clay flats with ironstone and quartz pebbling	29.9		
	D1	Acacia section Juliflorae (Acacia aneura and Acacia aptaneura), and Acacia craspedocarpa tall- open shrubland over mid-open shrubland of Acacia tetragonophylla, Acacia burkittii, and Senna artemisioides over low-open shrubland of Ptilotus obovatus, Solanum lasiophyllum, and Cheilanthes sieberi on red clay soils in minor drainage lines	11.5		
	D3	Acacia section Juliflorae (Acacia aneura and Acacia aptaneura) tall-open shrubland over mid- sparse shrubland of Acacia burkittii, Eremophila youngii, and Senna artemisioides over low- sparse chenopod shrubland of Maireana pyramidata, Sclerolaena cuneata, and Frankenia fecunda on red-orange, sandy- clay soils in minor drainage lines	145.4		
	R1	Acacia section Juliflorae (Acacia aneura and Acacia aptaneura) and Acacia oswaldii tall-sparse shrubland over mid-sparse shrubland of Senna artemisioides and Acacia tetragonophylla over low sparse shrubland of Ptilotus obovatus on skeletal red clay soil on ironstone ridgelines	4.1		
	Vegetation a	essociations in the King John application area	Mapped		
	Association Code	Description			
A22		Tall open shrubland of Acacia sect Juliflorae (A. aneura, A. Aptaneura, and A. craspedocarpa) over mid- sparse shrubland of A tetragonophylla, Senna atemisioides subsp. xartemisioides and Sydrax suaveolens over isolated ferns of Chelanthes siberi subssp. sieberi on sandy red clay loam in minor drainage lines.	64.3ha		
	A23	Tall open shrubland of Acacia sect Juliflorae (A aneura, A aptaneura and A caesaneura) over mid-sparse shrubland of A tetragonophylla, Eremophila margarethae and Psydrax suaveolens over isolated ferns of Cheilanthes sieberi subsp. sieberi on flats or slopes of red clay with ironstone gravel.	869.9ha		
	CH2	Low-sparse chenopod shrubland of Sclerolaena cuneata, Maireana villosa, and Cratystylis subspinescens on clay flats with large quartz and ironstone pebbles Mid-sparse shrubland of Acacia tetragonophylla, Eremophila platycalyx subsp. platycalyx and Senna	243.0ha		
	СНЗ	artemisioides subsp. xartemisioides over low-isolated chenopod shrubland of Maireana triptera, Maireana villosa and Ptilotus obovatus on clay flats with quartz and ironstone pebbles.	33.7ha		
	R1	Tall open shrubland of Acacia sect Juliflorae (A. aptaneura A. caesaneura, A. incurvaneura) and Grevillea berryana, over mid-sparse shrubland of A. tetragonopylla, Eremophila latrobei subsp latrobei and Ptilotus obovatus, over isolated tussock grassland Eriachne mucronata, Digitaria brownii, and Ptilotus shwartzii on skeletal clays on ironstone outcrops.	24.9ha		
	Vegetation a	essociations in the King John Haulage Network (L 38/383) application area			
	Vegetation Association Code	Description	Mapped Area		
	A22	Tall open shrubland of Acacia sect Juliflorae (A. aneura, A. Aptaneura, and A. craspedocarpa) over mid- sparse shrubland of A tetragonophylla, Senna atemisioides subsp. xartemisioides and Sydrax suaveolens over isolated ferns of Chelanthes siberi subssp. sieberi on sandy red clay loam in minor drainage lines.	11.9ha		
	A23	Tall open shrubland of Acacia sect Juliflorae (A aneura, A aptaneura and A caesaneura) over mid-sparse shrubland of A tetragonophylla, Eremophila margarethae and Psydrax suaveolens over isolated ferns of Cheilanthes sieberi subsp. sieberi on flats or slopes of red clay with ironstone gravel.	35.3ha		
	СНЗ	Mid-sparse shrubland of Acacia tetragonophylla, Eremophila platycalyx subsp. platycalyx and Senna artemisioides subsp. xartemisioides over low-isolated chenopod shrubland of Maireana triptera, Maireana villosa and Ptilotus obovatus on clay flats with quartz and ironstone pebbles.	27.9ha		
	Vegetation m found.	apping of the new application areas is available in Appendix DError! Reference se	ource no		
	The vegetetic	on survey (Regis, 2024) and aerial imagery indicate the vegetation within the propo	sed		
egetation ondition		is in Good to Excellent (Trudgen, 1991) condition.			

Characteristic	Details
Climate	The application area is located in an arid zone of Western Australia with a mean annual rainfall (Laverton station) of 234.4 millimetres (BoM, 2024).
Soil description	The soils mapped within the application area are mapped as soil unites BE8 and Fa7. These soil units are described by Northcote et al. (1960-68) as:
	<b>BE8:</b> Partially dissected pediments extending out from areas of unit Fa7; there may be a surface cover of gravels. Earthy loams are dominant; with red-brown hardpan at shallow depth are also present.
	<b>Fa7:</b> Greenstone hills and low ranges with some slate and basalt: dominant soils are shallow stony earthy loams on the steep slopes while red-brown hardpan occurs on the stony pediments.
Land systems	The application area intersects 12 land systems (DPIRD, 2024). These land systems are described by DPIRD (2024) and Pringle et al. (1994) as:
	<b>Ararak land system:</b> Broad plains with mantles of ironstone gravel supporting mulga shrublands with wanderrie grasses. As a result of low slopes, protective soil mantles and very diffuse sheet flow, this land system is generally not susceptible to soil erosion.
	<b>Bevon land system</b> : Irregular low ironstone hills with stony lower slopes supporting mulga shrublands. Minor areas with texture contrast soils on breakaway footslopes and narrow drainage tracts are susceptible to soil erosion, particularly if perennial shrub cover is substantially reduced or the soil surface is disturbed.
	<b>Brooking land system:</b> Prominent ridges of banded iron formation supporting mulga shrublands and occasional minor halophytic communities. Stone mantles provide effective protection against soil erosion. Disturbance or removal of stone mantles may initiate soil erosion.
	<b>Cunyu land system:</b> Calcrete platforms, intervening drainage floors and channels and minor alluvial plains, supporting acacia shrublands, occasional casuarina woodlands and minor halophytic shrublands. Alluvial plains and drainage lines are mildly susceptible to water erosion if perennial shrub cover is substantially reduced or the soil surface is disturbed.
	<b>Felix land system:</b> Gently undulating plains with quartz mantles, supporting acacia-eremophila shrublands locally with wanderrie grasses. Stone mantles provide effective protection of the soil against erosion.
	<b>Hootanui land system:</b> Breakaways, hills and ridges with saline gravelly and stony lower plains supporting scattered halophytic low shrublands. Narrow drainage tracts and breakaway footslopes are susceptible to water erosion in areas where perennial shrub cover is substantially reduced, or the soil surface is disturbed.
	<b>Jundee land system:</b> Hardpan plains with variable gravelly mantles and minor sandy banks supporting weakly groved mulga shrublands. Impedance to natural sheet flows can initiate soil erosion. Gravel mantles provide effective protection against soil erosion.
	<b>Nubev land system:</b> Gently undulating stony plains, minor limonitic low rises and drainage floors supporting mulga and halophytic shrublands. Drainage zones are moderately susceptible to soil erosion, particularly where perennial shrub cover is substantially reduced or the soil surface is disturbed. Disturbance of the protective stone mantle on saline stony plains is also likely to initiate water erosion.
	<b>Steer land system:</b> Gravelly alluvial plains supporting chenopod shrublands. This land system is generally not susceptible to erosion, partly as a consequence of protective stone and gravel soil mantles, Unprotected areas on alluvial plains and, more particularly, on drainage floors, are susceptible to water erosion.
	<b>Teutonic land system:</b> Hills and stony plains on acid volcanic rocks supporting acacia shrublands. This land system is generally not susceptible to soil erosion, partly as a consequence of extensive stone mantles.
	<b>Tiger land system:</b> Gravelly hardpan plains and sandy banks with mulga shrublands and wanderrie grasses. This land system is generally not susceptible to soil erosion.
	Violet land system: Gently undulating gravelly plains on greenstone, laterite and hardpan, with low stony rises and minor saline plains; supporting groved mulga and bowgada shrublands and occasionally chenopod shrublands. Abundant mantles provide effective protection against soil erosion over most of this land system, except where the soil surface has been disturbed, for example by the construction of tracks and gridlines. In such circumstances, the soil becomes moderately susceptible to water erosion. Narrow drainage tracts are mildly susceptible to water erosion.
Waterbodies	The desktop assessment and aerial imagery indicated that several minor, non-perennial watercourses transect the area proposed to be cleared (GIS Database).
Hydrogeography	The application area is located within the Goldfields Groundwater Area, legislated by the RIWI Act 1914. The mapped groundwater salinity ranges from 500-3000 milligrams per litre total dissolved solids, which is considered to be marginal to brackish (GIS Database).
Flora	Five Priority flora species have been recorded in the survey area, only one was located in the application area. No Threatened flora species were recorded in the application area (Regis, 2024; GIS Database).
Ecological communities	The application area does not for part of any known or mapped Threatened or Priority Ecological Communities. The closest record is 33.3 kilometres south of the application area (GIS Database).
Fauna	Regis has commissioned several fauna surveys and assessments which are applicable to this application The table below identifies conservation significant species assessed to have some potential both across

Characteristic	Details										
		the Duketon Gold Project and in the new areas being considered under this application. (Terrestrial Ecosystems 2023a, 2023b).									
	Species	Conservation Significance	Duketon Gold Project surrounding area	Central Duketon Application Area	King John and King John Haulage Network (L38/383) Application Area	Maverick-McKenzies-Kintyre Application Area					
		BC Act Vulnerable EPBC Act Vulnerable	Malleefowl tracks were recorded in the Terminator project area, the first record since surveys commenced (2008). Believed to be a vagrant from outside of the DGP. Abundance very low and no mounds have been recorded.	Very low probability. Tracks for a single individual located ~20 km to the west	Very low probability. Tracks for a single individual located ~50 km to the northwest	Very low probability. Tracks for a single individual located ~50 km to the northwest					
	Princess Parrot	BC Act Vulnerable EPBC Act Vulnerable	May infrequently be seen in the region.	May occasionally to infrequently be seen	May infrequently be seen	May occasionally be seen					
Fork-tailed Swift		BC Act Migratory EPBC Migratory	May very infrequently be seen. Clearing vegetation is unlikely to impact on this aerial species.	May infrequently be seen flying	May very infrequently be seen flying	May infrequently be seen flying					
	Peregrine Falcon BC Act Other Specially Protected	BC Act Other Specially Protected	May infrequently be seen. Clearing vegetation is unlikely to impact on this species.	May infrequently be seen flying	May infrequently be seen	May occasionally be seen					
	Southern Whiteface	BC Act Vulnerable EPBC Act Vulnerable	Potentially present. Has been recorded further north of the DGP	Low probability. Recorded ~10 km to the north	Not commented on but likely to be potentially present in the project area but it will readily move.	Potentially in the project area but it will readily move.					
	Long-tailed Dunnart	DBCA – Priority 4	Single Long-tailed Dunnart was recorded in Thompson Bore. There is no 'recognised' suitable habitat in this project area, so it is likely to be a vagrant.	Low possibility of being present in rocky areas.	No recognised suitable habitat presents in the survey area. Tracks for a single individual located ~50 km to the northwest	Very low probability of being present. The rocky outcropping present appears too small to support Long-tailed Dunnarts.					
	Brush-tailed Mulgara	DBCA – Priority 4	Highly unlikely due to a lack of suitable habitat (mature spinifex dominated habitat).	Highly unlikely due to a lack of suitable habitat.	Highly unlikely to be present	Highly unlikely to be present					
Fauna habitat				ape is dominated by her habitat types acro							
	•	Disturbed area	as around mine pits								
	•	Rehabilitated	waste dumps								
	•	Rocky outcrop	S.								
	•	Mulga woodla	nds over spinifex – a	t the northern extrem	ity of the application	area.					

## A.2. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix E.1), and biological survey information, impacts to the following conservation significant flora required further consideration.

Species name	Conservation status	Suitable habitat features? [Y/N]	Number of known records (Western Australian Herbarium)	Number of locations (survey)	Number of locations (application area)	Are surveys adequate to identify? [Y, N, N/A]
Calytrix praecipua	P3	Y	28	2	0	Y
Einadia nutans subsp. nutans	P3	Y	1	2	0	Y
Eremophila pungens	P4	Y	45	165	19	Y
Frankenia georgei	P1	Y	6	7	0	Y
Lysiandra baeckeoides	P3	Y	31	6	0	Y

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

(Regis, 2024; Western Australian Herbarium, 1998-)

## Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<u>Principle (a):</u> "Native vegetation should not be cleared if it comprises a high level of biodiversity."	Not likely to be at variance	Yes
Assessment:		Refer to Section
No vegetation communities mapped within the Duketon tenements are spatially restricted. While some vegetation units occupy a small area within Regis Resources'		0.2.1

Assessment against the clearing principles	Variance level	Is further consideration required?			
Duketon tenements, similar vegetation assemblages are known to be regionally abundant (Regis, 2024).					
<u>Principle (b):</u> "Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."	Not likely to be at variance	Yes			
Assessment:		Refer to Section			
Although the proposed clearing areas will comprise habitat that may be suitable for fauna indigenous to Western Australia, from a regional context, the vegetation associations within the project area are well represented within the broader region (Regis, 2024).		3.2.1			
<u>Principle (c):</u> "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."	Not likely to be at variance	No			
Assessment:					
No Threatened flora species have been recorded at the Duketon Gold Project application area (Regis, 2024; GIS Database).					
<u>Principle (d):</u> "Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community."	Not likely to be at variance	No			
Assessment:					
No Threatened Ecological Communities have been recorded at the Duketon Gold Project application area (Regis, 2024; GIS Database).					
Environmental value: significant remnant vegetation and conservation areas	I	L			
<u>Principle (e):</u> "Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."	Not at variance	No			
Assessment:					
The application area falls within the Murchison Bioregion of the Interim Biogeographic Regionalisation for Australia (GIS Database). Over 99 per cent of the pre-European vegetation still exists in the Murchison Bioregion (Government of Western Australia, 2019). The application area is broadly mapped as Beard vegetation associations 18 and 39 (GIS Database). These vegetation associations have not been extensively cleared as over 99 per cent of the pre-European extent of this vegetation association remains uncleared at both the state and bioregional level (Government of Western Australia, 2019).					
<u>Principle (h):</u> "Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area."	Not likely to be at variance	No			
Assessment:					
Given the distance to the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of any known or mapped conservation areas (GIS Database).					
Environmental value: land and water resources					
<u>Principle (f):</u> "Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."	At variance	Yes			
Assessment:					
There are several water courses within the application area (GIS Database) and a number of the vegetation communities identified within the application area are considered to be growing in association with minor drainage lines (Regis, 2024).		3.2.1			
<u>Principle (g):</u> "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."	May be at variance	Yes			
Assessment:		Refer to Section 3.2.1			
The mapped soils are moderately susceptible to soil erosion, especially along drainage lines (Pringle et al., 2004). Noting the location of the application area and the amount of the proposed clearing, the proposed clearing is likely to cause appreciable land degradation.		3.2.1			

Assessment against the clearing principles	Variance level	Is further consideration required?
<u>Principle (i):</u> "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."	Not likely to be at variance	No
Assessment:		
Given no permanent water courses, wetlands, or Public Drinking Water Source Areas are recorded within the application area (GIS Database), the proposed clearing is unlikely to cause deterioration in the quality of surface or underground water.		
<u>Principle (j):</u> "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."	Not likely to be at variance	No
Assessment:		
Given no permanent water courses or wetlands are recorded within the application area (GIS Database), the proposed clearing is unlikely to cause, or exacerbate, the incidence or intensity of flooding.		

## Appendix C. Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation's ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Trudgen, M.E. (1991) *Vegetation condition scale* in National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA), Wildflower Society of WA (Inc.), and the Tree Society (Inc.), Perth.

Condition	Description			
Excellent	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.			
Very good	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.			
Good	More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds.			
Poor	Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.			
Very poor	Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually with a number of weed species present including very aggressive species.			
Completely degraded Areas that are completely or almost completely without native species in the structure of the vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising weak crop species with isolated native trees or shrubs.				

#### Measuring vegetation condition for the Eremaean and Northern Botanical Provinces (Trudgen, 1991)

#### Appendix D.

Survey maps

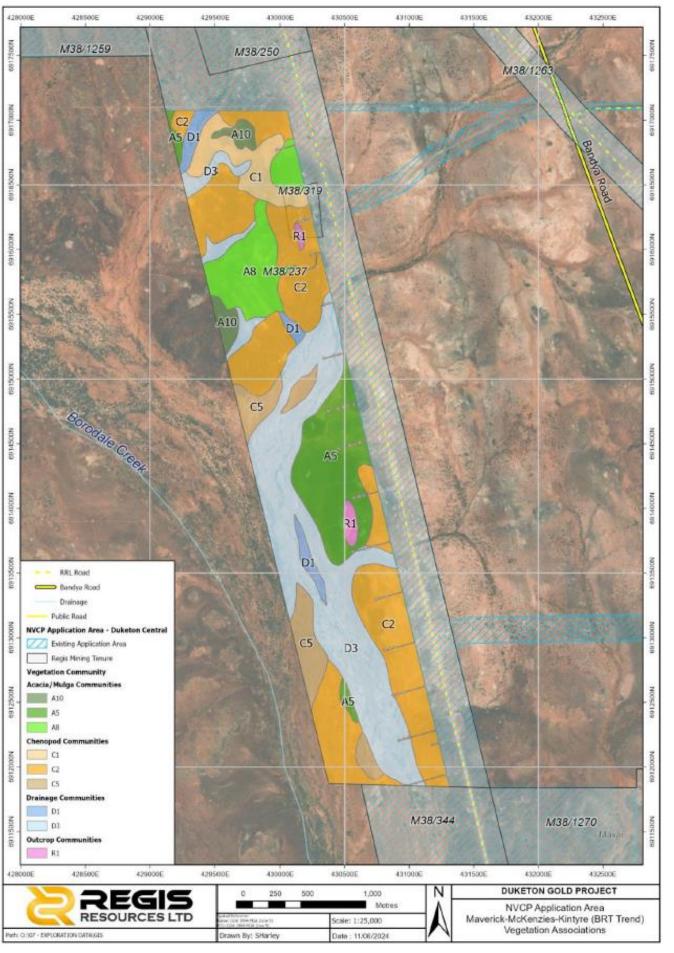


Figure 1. Vegetation Associations of the Maverick-McKenzies-Kintyre (BRT Trend) application area (Regis, 2024).

CPS 10692/1

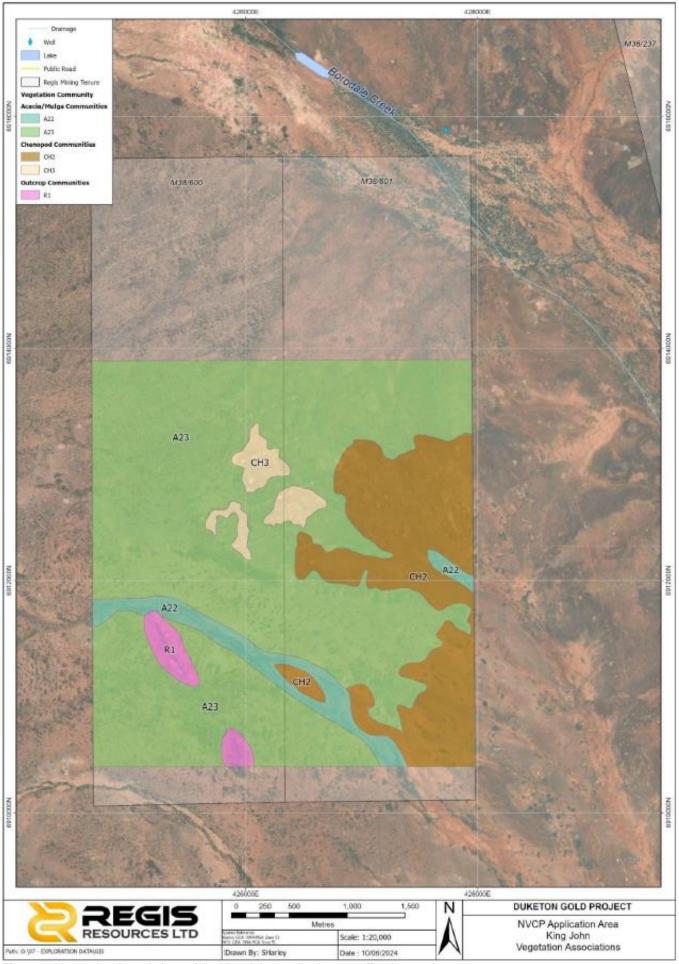


Figure 2. Vegetation Associations of the King John application area (Regis, 2024).

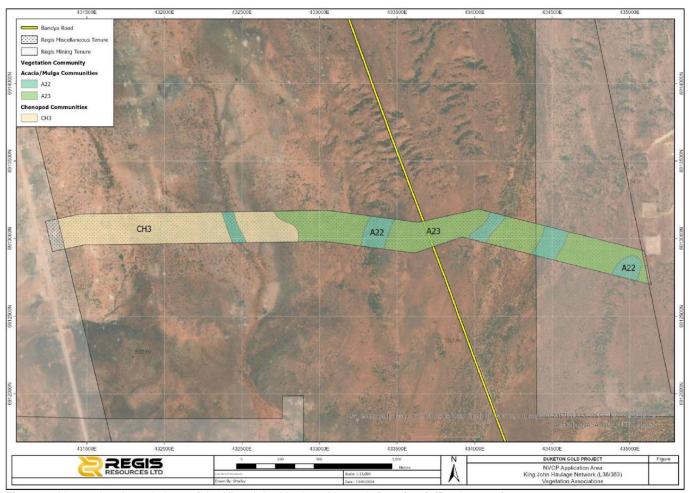


Figure 3. Vegetation Associations of the King John Haulage Network (L 38/383) (Regis, 2024).

## Appendix E. Sources of information

## E.1.GIS databases

Publicly available GIS Databases used (sourced from www.data.wa.gov.au):

- Aboriginal Heritage Places (DPLH-001)
- Clearing Regulations Schedule One Areas (DWER-057)
- DBCA Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Environmentally Sensitive Areas (DWER-046)
- Groundwater Salinity Statewide (DWER-026)
- Hydrographic Catchments Catchments (DWER-028)
- Hydrography Inland Waters Waterlines
- Hydrography, Linear (DWER-031)
- IBRA Vegetation Statistics
- Native Title (ILUA) (LGATE-067)
- Pre-European Vegetation Statistics
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping Best Available (DPIRD-027)
- Soil Landscape Mapping Rangelands (DPIRD-064)
- WA Now Aerial Imagery

Restricted GIS Databases used:

- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

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## 4. Glossary

#### Acronyms:

BC Act	Biodiversity Conservation Act 2016, Western Australia			
ВоМ	Bureau of Meteorology, Australian Government			
DAA	Department of Aboriginal Affairs, Western Australia (now DPLH)			
DAFWA	Department of Agriculture and Food, Western Australia (now DPIRD)			
DCCEEW	Department of Climate Change, Energy, the Environment and Water, Australian Government			
DBCA	Department of Biodiversity, Conservation and Attractions, Western Australia			
DEMIRS	Department of Energy, Mines, Industry Regulation and Safety			
DER	Department of Environment Regulation, Western Australia (now DWER)			
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia (now DEMIRS)			
DMP	Department of Mines and Petroleum, Western Australia (now DEMIRS)			
DoEE	Department of the Environment and Energy (now DCCEEW)			
DoW	Department of Water, Western Australia (now DWER)			
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)			
DPIRD	Department of Primary Industries and Regional Development, Western Australia			
DPLH	Department of Planning, Lands and Heritage, Western Australia			
DRF	Declared Rare Flora (now known as Threatened Flora)			
DWER	Department of Water and Environmental Regulation, Western Australia			
EP Act	Environmental Protection Act 1986, Western Australia			
EPA	Environmental Protection Authority, Western Australia			
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)			

GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
PEC	Priority Ecological Community, Western Australia
<b>RIWI Act</b>	Rights in Water and Irrigation Act 1914, Western Australia
TEC	Threatened Ecological Community

#### **Definitions:**

{DBCA (2023) Conservation Codes for Western Australian Flora and Fauna. Department of Biodiversity, Conservation and Attractions, Western Australia}:-

#### T <u>Threatened species:</u>

Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as threatened species under section 26(2) of the Biodiversity Conservation Act 2016 (BC Act).

*Threatened fauna* is the species of fauna that are listed as critically endangered, endangered or vulnerable threatened species.

*Threatened flora* is the species of flora that are listed as critically endangered, endangered or vulnerable threatened species.

The assessment of the conservation status of threatened species is in accordance with the BC Act listing criteria and the requirements of <u>Ministerial Guideline Number 1</u> and <u>Ministerial Guideline</u> <u>Number 2</u> that adopts the use of the International Union for Conservation of Nature (IUCN) <u>Red List</u> of <u>Threatened Species Categories and Criteria</u>, and is based on the national distribution of the species.

#### CR Critically endangered species

Threatened species considered to be "facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines".

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines.

#### EN Endangered species

Threatened species considered to be "facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines".

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines.

#### VU Vulnerable species

Threatened species considered to be "facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines".

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines.

#### Extinct Species:

#### EX Extinct species

Species where "there is no reasonable doubt that the last member of the species has died", and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).

#### EW Extinct in the wild species

Species that "is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form", and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).

Currently there are no threatened fauna or threatened flora species listed as extinct in the wild.

#### Specially protected species:

Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection.

Species that are listed as threatened species (critically endangered, endangered or vulnerable) or extinct species under the BC Act cannot also be listed as Specially Protected species.

#### MI Migratory species

Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the BC Act).

Migratory species include birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) or The Republic of Korea (ROKAMBA), and fauna subject to the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species.

## CD Species of special conservation interest (conservation dependent fauna)

Species of special conservation need that are dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).

Currently only fauna are listed as species of special conservation interest.

#### OS Other specially protected species

Species otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).

Currently only fauna are listed as species otherwise in need of special protection.

## P <u>Priority species:</u>

Priority is not a listing category under the BC Act. The Priority Flora and Fauna lists are maintained by the department and are published on the department's website.

All fauna and flora are protected in WA following the provisions in Part 10 of the BC Act. The protection applies even when a species is not listed as threatened or specially protected, and regardless of land tenure (State managed land (Crown land), private land, or Commonwealth land).

Species that may possibly be threatened species that do not meet the criteria for listing under the BC Act because of insufficient survey or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of prioritisation for survey and evaluation of conservation status so that consideration can be given to potential listing as threatened.

Species that are adequately known, meet criteria for near threatened, or are rare but not threatened, or that have been recently removed from the threatened species list or conservation dependent or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring.

Assessment of priority status is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

**Priority One - Poorly-known species – known from few locations, none on conservation lands** Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, for example, agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation.

Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements for threatened listing and appear to be under immediate threat from known threatening processes. These species are in urgent need of further survey.

P2 Priority Two - Poorly-known species – known from few locations, some on conservation lands Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, for example, national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation.

Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements for threatened listing and appear to be under threat from known threatening processes. These species are in urgent need of further survey.

#### P3 Priority Three - Poorly-known species – known from several locations

Species that are known from several locations and the species does not appear to be under imminent threat or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat.

**P1** 

Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. These species need further survey.

#### P4 Priority Four - Rare, Near Threatened and other species in need of monitoring

(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands.

(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as a conservation dependent specially protected species.

(c) Species that have been removed from the list of threatened species or lists of conservation dependent or other specially protected species, during the past five years for reasons other than taxonomy.

(d) Other species in need of monitoring.

#### Principles for clearing native vegetation:

- (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.
- (b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna.
- (c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.
- (d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.
- (e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.
- (f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.
- (g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.
- (h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.
- (i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.
- (j) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.



## **CLEARING PERMIT**

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	10692/1
Duration of Permit:	From 2 November 2024 to 1 November 2029
Permit Holder:	Regis Resources Limited

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

## PART I - CLEARING AUTHORISED

1. Land on which clearing is to be done

Mining Leases 38/237, 38/250, 38/283, 38/292, 38/302, 38/303, 38/316, 38/317, 38/319, 38/343, 38/344, 38/352, 38/354, 38/407, 38/498, 38/499, 38/500, 38/589, 38/600, 38/601, 38/802, 38/837, 38/939, 38/940, 38/943, 38/1091, 38/1092, 38/1247, 38/1249, 38/1250, 38/1251, 38/1257, 38/1258, 38/1259, 38/1260, 38/1261, 38/1262, 38/1263, 38/1264, 38/1265, 38/1269, 38/1270, 38/1277 Miscellaneous Licences 38/133, 38/156, 38/182, 38/201, 38/204, 38/216, 38/226, 38/239, 38/315, 38/316, 38/317, 38/318, 38/319, 38/348, 38/365, 38/383

## 2. Clearing authorised (purpose)

The Permit Holder is authorised to clear native vegetation for the purpose of mineral production and associated activities.

3. Area of Clearing

The Permit Holder must not clear more than 950 hectares of native vegetation within the areas shaded yellow in Figure 1 of Schedule 1.

## 4. Type of Clearing Authorised

The Permit Holder shall not clear native vegetation unless the purpose for which the clearing is authorised is enacted within six months of the authorised clearing being undertaken.

## PART II - MANAGEMENT CONDITIONS

#### 5. Avoid, minimise and reduce the impacts and extent of clearing

In determining the amount of native vegetation to be cleared under this Permit, the Permit Holder must apply the following principles, set out in descending order of preference:

- (a) avoid the clearing of native vegetation;
- (b) minimise the amount of native vegetation to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

## 6. Weed control

When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no known or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

#### 7. Vegetation Management

- (a) where practicable the Permit Holder shall avoid *clearing riparian vegetation*; and
- (b) where a *watercourse* or *drainage line* is to be impacted by clearing, the Permit Holder shall ensure that the existing surface flow is maintained, or reinstated downstream into existing natural *drainage lines*.

## PART III - RECORD KEEPING AND REPORTING

#### 8. Records to be kept

The Permit Holder must maintain records relating to the listed relevant matters in accordance with the specifications detailed in Table 1.

No.	Relevant matter	Spec	cifications
1.	In relation to the authorised clearing activities generally	(a)	the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
		(b)	the date that the area was cleared;
		(c)	the size of the area cleared (in hectares);
		(d)	actions taken in accordance with Condition 4;
		(e)	actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with Condition 5;
		(f)	actions taken to minimise the risk of the introduction and spread of <i>weeds</i> in accordance with Condition 6; and
		(g)	actions taken in accordance with Condition 7.

## 9. Reporting

- (a) The Permit Holder shall provide a report to the CEO by 31 July each year for the life of this Permit, demonstrating adherence to all conditions of this Permit, and setting out the records required under Condition 8 of this Permit in relation to clearing carried out between 1 July and 30 June of the previous financial year.
- (b) If no clearing authorised under this Permit was undertaken between 1 July and 30 June of the previous financial year, a written report confirming that no clearing under this permit has been carried out, must be provided to the *CEO* by 31 July of each year.
- (c) Prior to 1 November 2029, the Permit Holder must provide to the *CEO* a written report of records required under Condition 8 of this Permit where these records have not already been provided under Condition 9(a) or 9(b) of this Permit.

## **DEFINITIONS**

In this Permit, the terms in Table 2 have the meanings defined.

## Table 2: Definitions

Term	Definition		
CEO	the Chief Executive Officer of the Department responsible for administering the clearing provisions contained within the <i>Environmental Protection Act 1986</i> or an Officer with delegated authority under Section 20 of the <i>Environmental Protection Act 1986</i> .		
clearing	has the meaning given under section 3(1) of the EP Act.		
condition/s	a condition to which this clearing permit is subject under section 51H of the EP Act.		
department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.		
drainage line/s	means a natural depression that carries surface water runoff.		
EP Act	Environmental Protection Act 1986 (WA)		
fill	means material used to increase the ground level, or to fill a depression.		
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.		
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.		
riparian vegetation	has the meaning given to it in Regulation 3 of the Environmental Protection (Clearing of Native Vegetation) Regulation 2004.		
watercourse	has the meaning given to it in section 3 of the <i>Rights in Water and Irrigation Act</i> 1914.		
weed/s	<ul> <li>means any plant –         <ul> <li>(a) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i>; or</li> <li>(b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or</li> <li>(c) not indigenous to the area concerned.</li> </ul> </li> </ul>		

## END OF CONDITIONS

# Danielle Risbey

**Danielle Risbey** | Acting General Manager Mine Closure and Environmental Services Resource and Environmental Compliance Division 10 October 2024

Officer with delegated authority under Section 20 of the *Environmental Protection Act 1986* 

## **SCHEDULE 1**

The boundary of the area authorised to be cleared is shown in the map below (Figure 1).

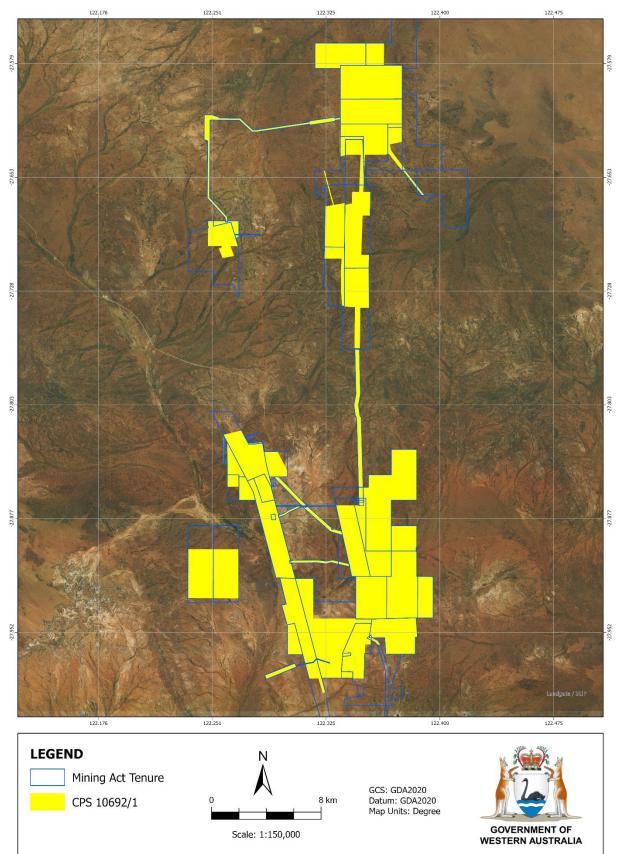


Figure 1: Map of the boundary of the area within which clearing may occur