



**NEW PURPOSE PERMIT APPLICATION  
CENTRAL DUKETON  
DUKETON GOLD PROJECT**

Replacing CPS 9614 for the Duketon Gold Project Inclusive of New  
Developments at King John, Maverick-McKenzies-Kintyre, and Pleco

June 2024

## EXECUTIVE SUMMARY

Regis Resources Limited (Regis) is proposing to obtain a new Native Vegetation Clearing Permit which will incorporate the footprint area and remaining disturbance granted under CPS 9614 (adjusted to accommodate separate Clearing Permit applications for Gloster and the Duketon Southern Tenements), and add in new development areas at King John, Maverick-McKenzies-Kintyre (known as the BRT Trend) and Pleco. This new Clearing Permit will be known as the Central Duketon Clearing Permit.

Regis is an Australian mineral exploration and gold mining company with major land holdings in the Eastern Goldfields of Western Australia. Its Duketon Gold Project (DGP), between 70 and 125 km north of Laverton, comprises three processing plants (Moolart Well, Garden Well and Rosemont), which process ore from open pits and underground mines.

A new Purpose Clearing Permit is being sought in accordance with the *Environmental Protection (Clearing of Native Vegetation) Regulations*, as a replacement for CPS 9614 with the following specific adjustments:

- Consolidation of clearing previously undertaken under CPS 9614;
- Noting that new clearing permits have been applied for Gloster and the Duketon Southern Tenements (previously submitted and are under assessment); and
- Undertaking new disturbance activities at King John (inclusive of haulage route on L38/383), Maverick-McKenzies-Kintyre (also known as the BRT Trend) and Pleco.

Disturbance under the new clearing permit will be 950 ha within an overall application area of 17,782ha.

Since the initial application of CPS 9614/1 (approved in October 2022), the clearing permit boundary area has been reduced from 20,872ha to 16,072 ha, through the excision and reapplication of two project areas, (Gloster and Duketon Southern Tenements), and an administrative review of remaining Central Duketon Gold Project boundary area. The total area excised from previously approved application area during the administrative review is 1494ha. This permit's application area encompasses the reviewed Central Duketon application area with the additions of 485ha on M38/237 and M38/319 (BRT Trend), 1150ha on M38/600 and M38/601 (King John), and 75ha on L38/383 (King John haulage network).

The application area will continue to provide for disturbance activities at Moolart Well, Anchor, Dogbolter-Coopers, Ventnor, Petra, Rosemont, Baneygo (including Idaho), Eristoun, Toohey's Well, Beamish and Garden Well. It will also provide for new developments at Maverick-McKenzies-Kintyre (between Rosemont and Baneygo), King John (west of Rosemont) and Pleco (immediately north of Garden Well).

- King John is a historic prospect west of Rosemont. Drilling at King John has identified and delineated an open pit development that will be mined over three stages. The proposed development will be 110ha. The King John haulage network located on L38/383 will total 22ha.
- Maverick-McKenzies-Kintyre are three closely related prospects on trend between Rosemont and Baneygo. Following exploration drilling, sufficient confidence has been established to develop at least one new open pit. Allowing for all three potential satellite pits to be developed, this new development will be up to 120 ha.
- Pleco is a low-grade orebody immediately north of Garden Well and within the existing boundary of CPS 9614. Should Pleco be developed, the resulting pit, waste dump, and supporting infrastructure will total approximately 100 ha.

At present, CPS 9614/3 allows for the clearing of a maximum area of 1,330 ha. This application requests 950 ha of the unused disturbance allowance be allocated towards this new clearing permit, with the intent to surrender CPS 9614/3 upon grant of the new clearing permit.

From past studies, key environmental values present across the Central Duketon CPS are:

- Twelve land systems - Ararak, Bevon, Brooking, Cunyu, Felix, Hootanui, Jundee, Nubev, Steer, Teutonic, Tiger, and Violet. The new application areas that comprise part of this permit application area are on are the Hootanui, Jundee, Nubev, and Steer land systems.
- Vegetation mapping is dominated by Acacia (King John and Pleco), and Chenopod (Maverick-McKenzies-Kintyre) vegetation associations, typical of the East Murchison IBRA subregion and Austin Botanical District.
- Five Priority flora species have previously been recorded – *Frankenia georgei* (Priority 1), *Lysiandra baeckeoides* (Priority 3), *Calytrix praecipua* (Priority 3), *Einadia nutans* subsp *nutans* (Priority 3) and *Eremophila pungens* (Priority

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4). *Eremophila pungens* (Priority 4) has been recorded on L38/383, with the infrastructure able to avoid that vast majority of Priority flora locations.

- Whilst Moolart Well occurs in the Lake Carnegie catchment, all other mine sites including those specifically referred to in this application are within the Lake Carey catchment.
- The general DGP area has scattered ephemeral drainage lines which only flow after sustained intense rainfall. The closest to riparian vegetation in this application is represented by vegetation associations A22 (King John) and D1 and D3 at Maverick-McKenzies-Kintyre. These are associated with ephemeral drainage lines which occur across the regional landscape.
- No Threatened flora or Threatened Ecological Communities are present.
- Both King John and Maverick-McKenzies-Kintyre have been mapped as being Mulga Woodland fauna habitats.
- Key fauna habitats present in the wider landscape are rocky outcrops as potential habitat for the Priority 4 Long-tailed Dunnart which are scattered throughout the region. Larger more extensive rocky outcrops exist outside of the application area particularly between Garden Well and Laverton. At the very northern extent of the application area of CPS 9614 is spinifex over Mulga habitat. Mulgara has previously been recorded in this habitat to the north of Moolart Well.
- Conservation significant avian species Princess Parrot, Southern Whiteface, Fork-tailed Swift and Peregrine Falcon may occasionally or infrequently be seen in any of the application areas.

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

An assessment has been made of the application areas against the ten Clearing Principles, which are presented on the next page.

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	<p>Comparison of aerial photography of the survey area and surrounding areas suggests the area under application is typical of the vegetation throughout the region.</p> <p>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.</p> <p>The extent of the disturbance footprint in addition to that previously assessed for CPS 9614 are adjacent to or between existing mine sites.</p>
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	<p>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.</p> <p>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.</p>
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 Agriculture, Water and the Environment, 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	<p>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.</p> <p>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.</p>

	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	<p>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 at King John is Very Good. In the case of Maverick-McKenzies-Kintyre, vegetation was generally good condition. The area under this application includes areas with past mining and where grazing of cattle has occurred at varying intensities.</p> <p>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.</p>
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 CPS9614 application 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.

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Appendix 6:	Basic Vertebrate Fauna Survey and Risk Assessment – Maverick and McKenzie Project Areas (Terrestrial Ecosystems 2023)



## 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.

In the last five years, disturbance at the Duketon Gold Project has been conducted against CPS 6657 and subsequently CPS9614. As part of this clearing permit application, it is submitted that CPS 9614 be split into three, with the relevant disturbance in each area administered by separate permits.

- The southern tenements that support Duketon's Russel's Find, Reichelt's Find, King of Creation and Ben Hur project areas have been included in a separate purpose permit application, referred to as the Duketon Southern Tenements permit (currently under assessment), with disturbance allowance set to facilitate proposed developments at these project areas.
- The western tenements that support the Gloster operations have been included in a separate purpose permit application, referred to as the Gloster permit (currently under assessment). A disturbance allowance has been requested to further development at this operation.
- This purpose permit application seeks to cover the remaining operations and new satellite project areas at Duketon Gold Project. Disturbance totals will be made up of the remaining available disturbance approved by CPS 9614, and new additional disturbance required by new project areas.
- Disturbance as carried through from CPS 9614 is as follows:
  - CPS 9614 –1330ha of disturbance was initially approved, with unused disturbance allowance totalling 900ha. 598ha of this unused total will be included in the final disturbance total requested in this permit application.

The new projects and their associated disturbance are as follows:

- King John – 110ha of disturbance.
- King John Haulage Network (L38/383) – 22ha of disturbance.
- Maverick-McKenzies-Kintyre (also known as the BRT Trend) – 120ha of disturbance.
- Pleco (contained within CPS9614 permit area) – 100ha of disturbance.

Total disturbance under the new clearing permit will be 950ha within an overall application area of 17,782ha

Tenements covered by this permit application area, including those tenements previously permitted against CPS 9614 are listed in Table 1. The new tenements that have not previously been covered by an NVCP application are indicated in bold.

Table 1: Tenements which form part of this Application

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
<b>L38/383</b>	<b>Regis Resources Limited</b>
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
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
<b>M38/600</b>	<b>Mark Gareth Creasy, Duketon Resources Pty Ltd</b>
<b>M38/601</b>	<b>Mark Gareth Creasy, Duketon Resources Pty Ltd</b>
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 for a new permit or referral to clear native vegetation.

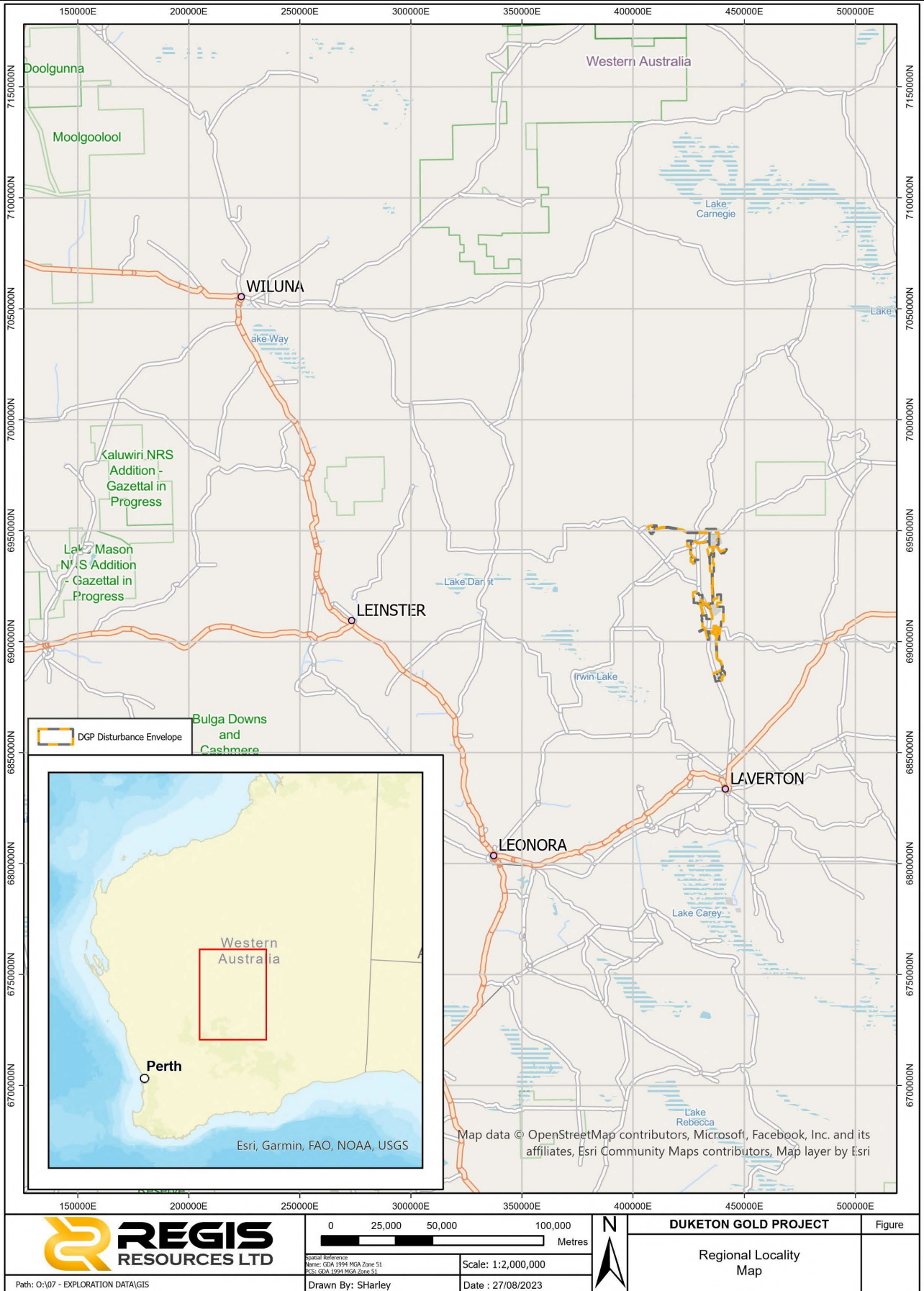


Figure 1: Duketon Gold Project Regional Location

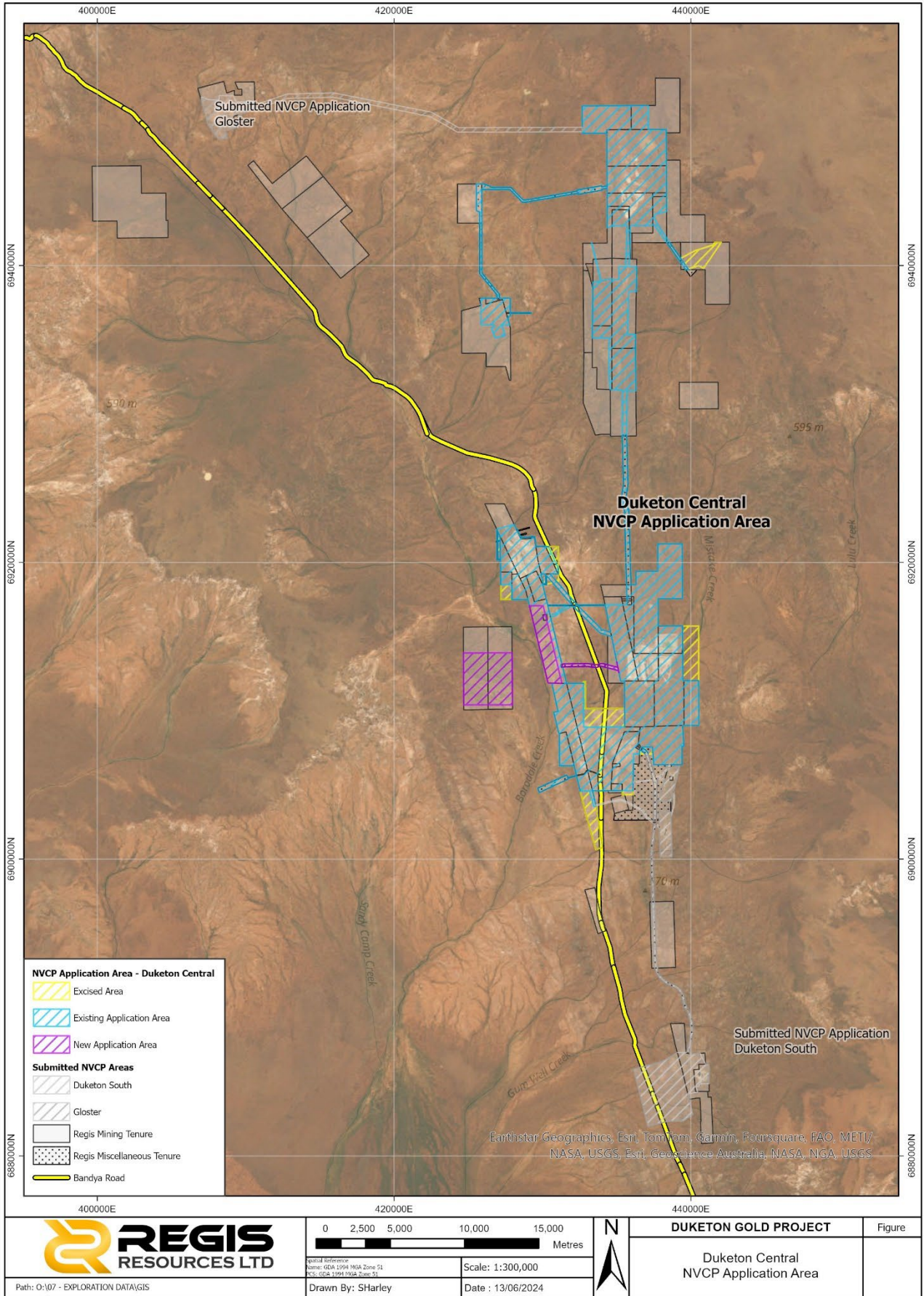


Figure 2: NVCP Application Area

## 2. PROJECT DESCRIPTION

### 2.1. PREVIOUS ACTIVITIES

The Duketon Gold Project covers the majority 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 that relate to this clearing permit application include Moolart Well, Anchor, Coopers/Dogbolter, Petra, Rosemont, Baneygo, Garden Well, Tooheys Well/Beamish and Erlistoun. Approval for disturbance at Ventnor has also been previously received under CPS9614. Pleco is a project area within the CPS9614 boundary that remains undeveloped and requires an increase in disturbance allowance.

While much of this application area has previously been administered by other clearing permits, there are three new project areas that have not previously been considered for disturbance. This 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 NEW PERMIT APPLICATION

#### 2.2.1. LOCATION

The Duketon Gold Project occurs between ~50 and 125 km north of Laverton. The extent of the permit application is between 75 and 125 km north of Laverton (Figure 1). King John, and the King John haulage route is approximately 90 km northwest of Laverton. Maverick-McKenzies-Kintyre is approximately 83 km north-northwest of Laverton. Both new application areas are proximal to the CPS 9614 application area.

#### 2.2.2. DESCRIPTION OF CHANGES

##### **Maverick-McKenzies-Kintyre (also known as the BRT Trend)**

These are separate project areas that follow the same mineralised trend that extends south from the Rosemont mine site to the Baneygo mine site. The projects will be new open pit developments, each accompanied by waste rock dump/s and other mining infrastructure (ROM pad, turkey nest, road, and provision for crib room, ablutions and workshop). It is expected that the existing Rosemont to Baneygo haul road will require diversion to both tie into the ore haulage network and to avoid overlap with the proposed landforms.

Currently, the CPS 9614 boundary only has capacity on M38/237, M38/319 and M38/344 for the existing haulage corridor, therefore it is proposed to extend the boundary of the clearing permit area to the extent of the listed mining tenements. Disturbance requirements for these projects total 120ha.

##### **King John**

This project area is located to the west of the BRT Trend, with options for ore haulage to either the Rosemont or the Garden Well processing facilities. This is an open pit development, with landforms including a waste rock dump and ROM pad, as well as other mining infrastructure (turkey nest, road, and provision for crib room, ablutions and workshop). A portion of the haulage network relating to this project has also been included in this permit application.

Tenements M38/600 and M38/601 have not been previously considered in a permit application. Disturbance requirements for this project total 110ha.

##### **King John Haulage Network (L38/383)**

Development of a haulage route on K38/383 will assist in connecting the King John project area to the Garden Well processing facility. Infrastructure will consist of a haul road, water pipeline (with allowance for bunding), turkey nests, and borrow pits.

L38/383 has not been previously considered in a permit application. Disturbance requirements total 22ha.

##### **Pleco**

This project area is immediately north of the Garden Well mine site and is wholly within the footprint of CPS 9614. It does however require additional disturbance allowance for the project (for the pit and waste dump) which is approximately 100 ha.

### 2.2.3. SITE PREPARATION AND CLEARING

Vegetation will be cleared for development of open pits, waste rock dumps, roads, ore and topsoil stockpiles, turkey nests, laydown areas, temporary buildings, 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 June 2024, associated with Duketon Gold Project Mining Proposal Version 11. The most recently approved MCP was approved by DEMIRS in December 2023 associated with DGP Mining Proposal Version 10.

## 3. REGIONAL ENVIRONMENTAL SETTING

### 3.1. NATURAL ENVIRONMENT

The Duketon Gold Project (DGP) is located 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 located 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.

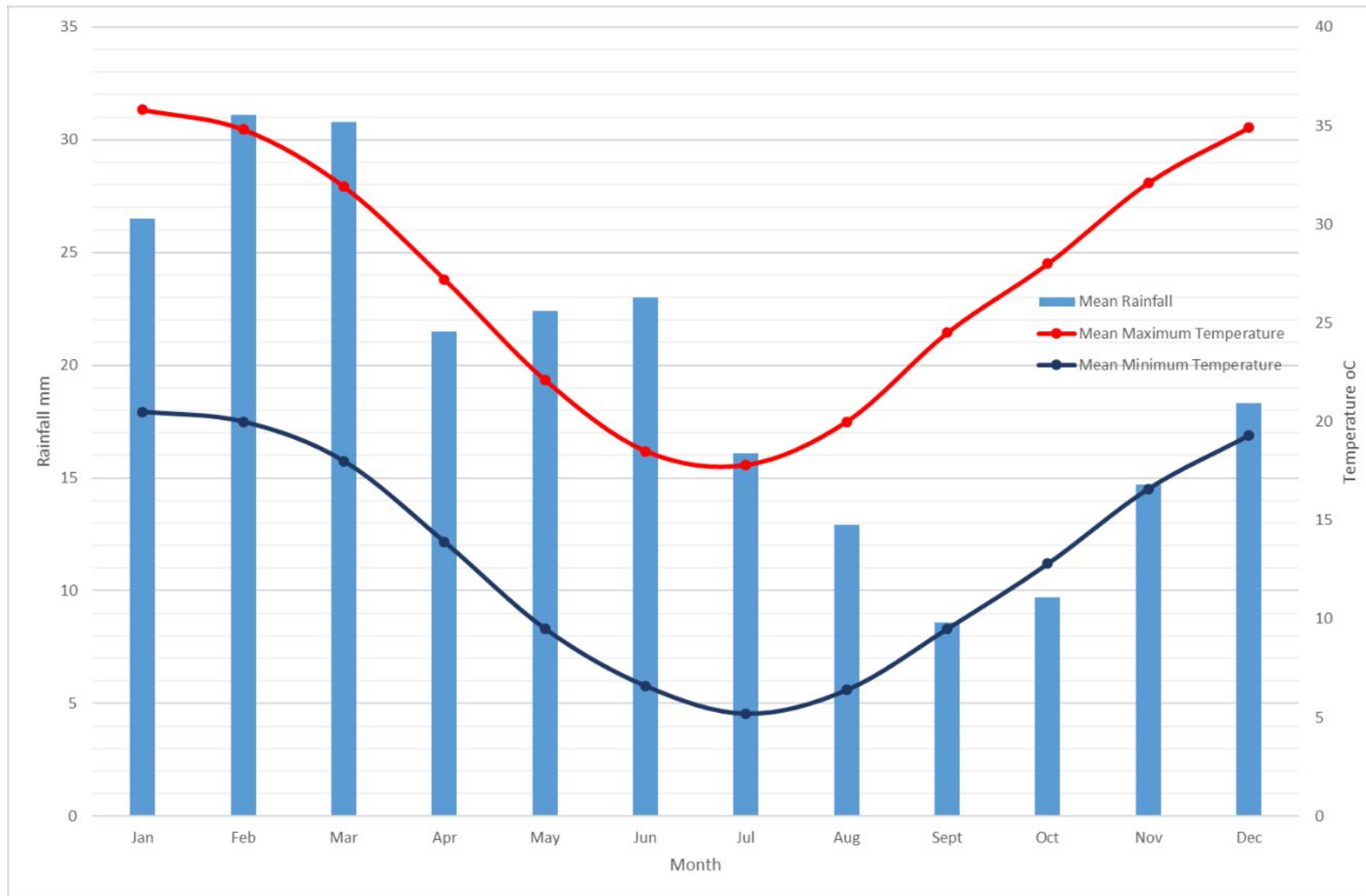


Figure 3: Mean Maximum and Minimum Temperatures and Precipitation at Laverton

### 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 CPS 9614 is shown in Table 2, with those relevant to areas added under this application (King John and Maverick-McKenzies-Kintyre) identified in bold type.



Table 2: Land Systems Associated with Application Area. Land Systems specifically relevant to the new additions to the application area are noted in bold type.

Land System	Land System Description	Moolart Well	Anchor	Coopers / Dogbolter	Petra	Rosemont	Baneygo	Garden Well	Tooheys Well / Beamish	Erlistoun	King John	King John Haulage Network (L38/383)	BRT Trend
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 west of Rosemont (between Rosemont and King John) and is adjacent to the BRT Trend. 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 Agriculture, Water and the Environment, 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.

Table 3: Priority Flora Species Recorded at Duketon Gold Project

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

#### **Maverick-McKenzies-Kintyre (also known as the BRT Trend)**

No Threatened or Priority flora were recorded within the survey area.

**King John**

No Threatened or Priority species were recorded at the King John project area, however one priority species as listed by the DBCA (2022b) *Eremophila pungens* (P4) was recorded at 19 locations within the haulage network tenement L38/383. (Figure 5).

**King John Haulage Network (L38/383)**

Nineteen records of *Eremophila pungens* (P4) were identified within the eastern portion of the prospective Rosemont to Garden Well Haul Road (Figure 5). In total, these 19 records accounted for 580 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 nature reserves, including both De La Poer Nature Reserve, and Wanjarri Nature Reserve. Given the large distribution of *Eremophila pungens* (P4) 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.

To minimise impact to the Priority 4 taxon, planned design of the road has veered around the two main clusters of *Eremophila pungens* (Figure 4). 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.

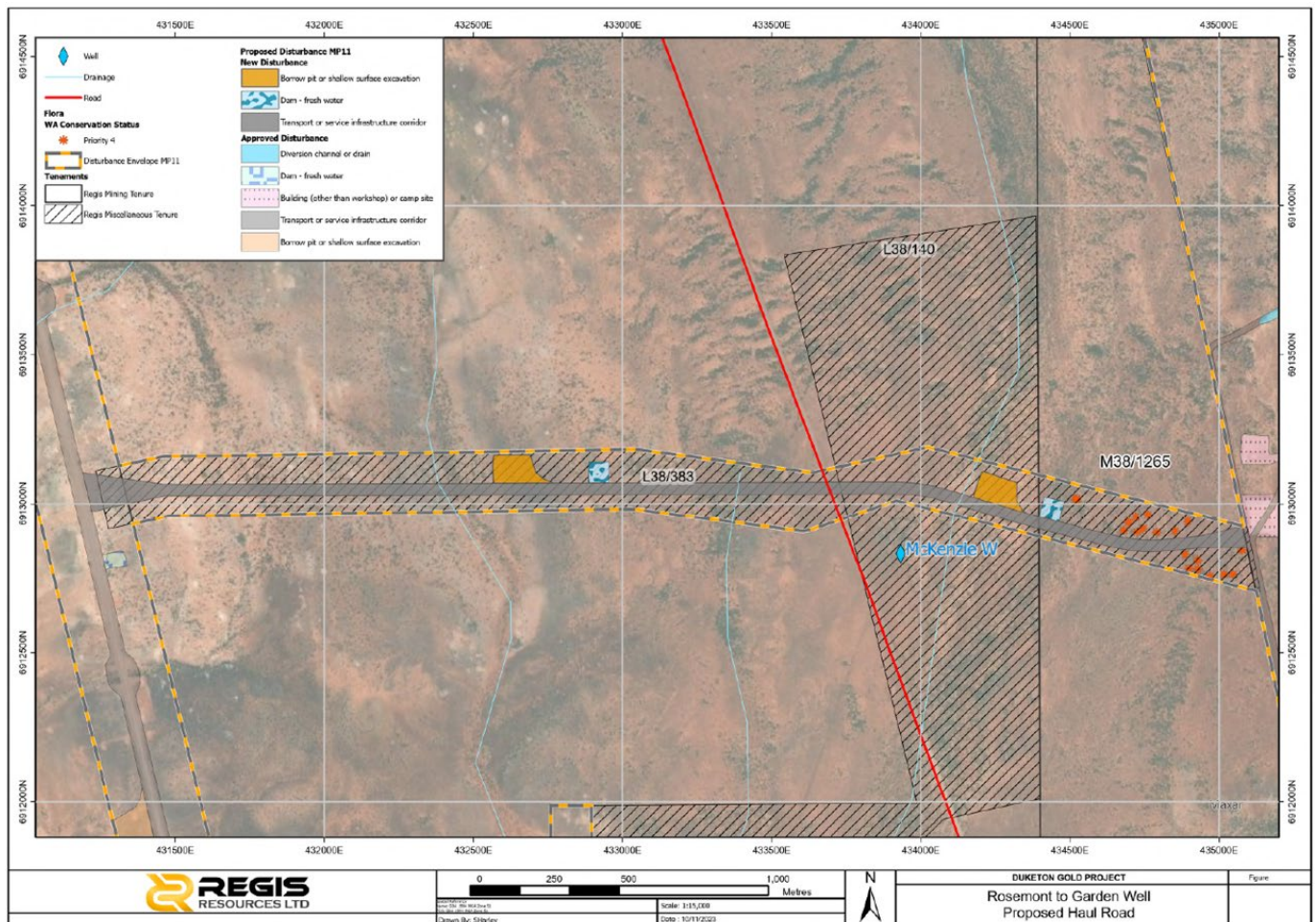


Figure 4: Haulage network designed to minimise disturbance of Priority 4 species

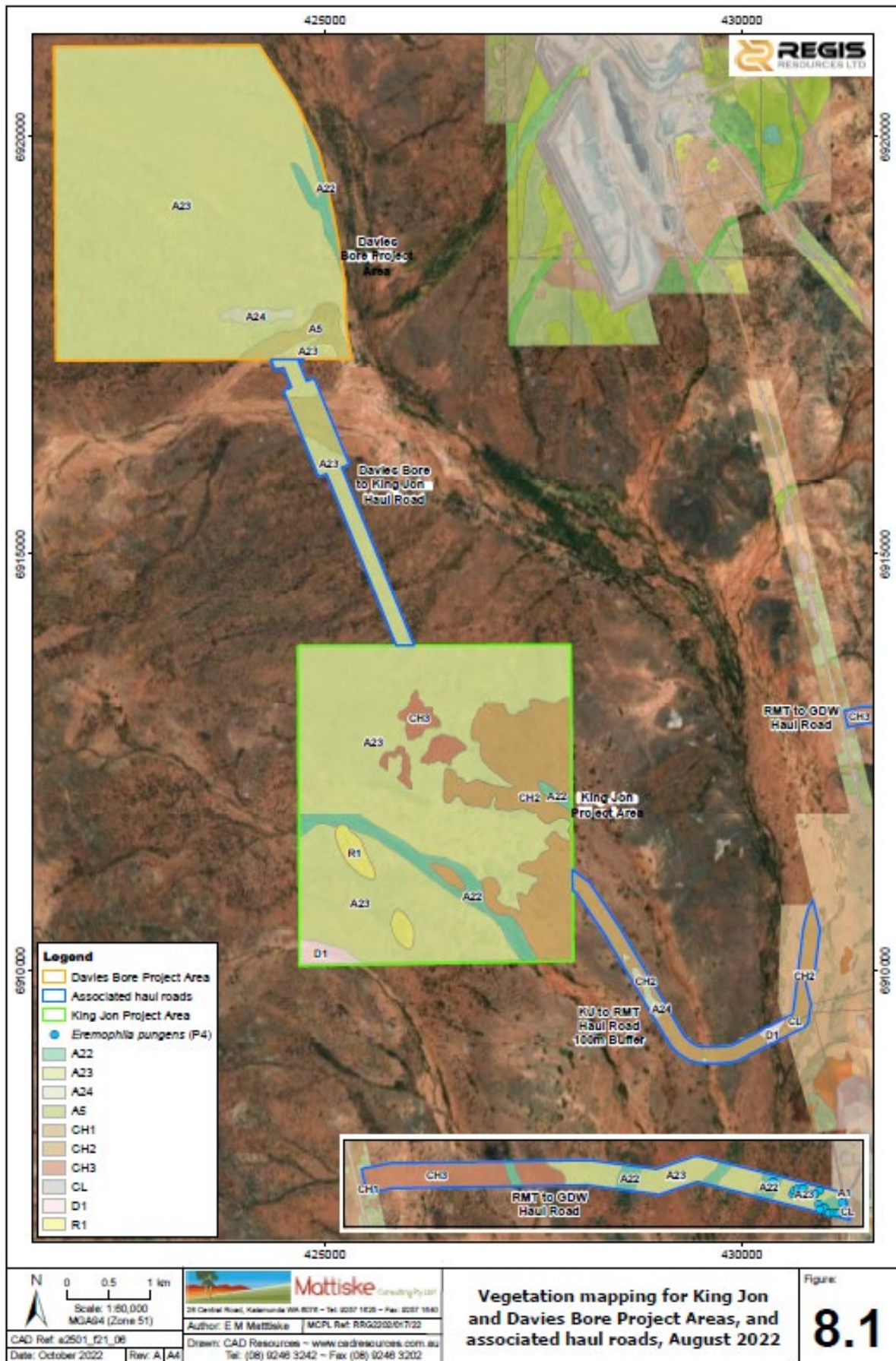


Figure 5: King John Survey Area, including location of Priority Flora

### 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 mapped 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).

Table 4: Vegetation communities of the previously approved application area

Group	Area %	Vegetation Description		Area %
<b>Undulating Mulga Flats with &gt;20% vegetation coverage</b>	26.1%	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%
		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%
		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%
<b>Undulating Mulga Flats with &lt;20% vegetation coverage</b>	21.6%	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%
		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%
		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%
<b>Chenopod Shrublands</b>	11.4%	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%
		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%
		C4	Mid-sparse shrubland of Hakea preissii and Senna artemisioides, over low-sparse chenopod shrubland of Maireana carnosa, Maireana pyramidata, and Eragrostis dieslii 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%
<b>Drainage Lines</b>	9.2%	D1	Tall-open shrubland of Acacia section Juliflorae, over mid-open shrubland of Acacia tetragonophylla, Acacia craspedocarpa, and Psyrax 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%
<b>Ridgelines</b>	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%
<b>Cleared Land Due to pastoral tracks, cattle grazing and mining activities (disturbed under approved clearing permits)</b>				31.2%

**Maverick-McKenzies-Kintyre (also known as the BRT Trend)**

Nine vegetation associations were identified in the Maverick-McKenzies-Kintyre survey area. This application area is dominated by Chenopod vegetation associations with C2 occupying 34%. These are shown in both Table 5 and Figure 6.

Table 5: Vegetation Associations in the Maverick-McKenzies-Kintyre Survey Area

Vegetation Association Code	Description	Mapped Area
A5	<i>Acacia</i> section Juliflorae ( <i>Acacia aneura</i> and <i>Acacia aptaneura</i> ) tall-open shrubland over mid- sparse shrubland of <i>Acacia tetragonophylla</i> , <i>Hakea preissii</i> , and <i>Senna artemisioides</i> over low sparse shrubland of <i>Ptilotus obovatus</i> , <i>Sida ectogama</i> , and <i>Cheilanthes sieberi</i> on undulating red clay flats with ironstone and quartz pebbling	59.3
A8	<i>Acacia</i> section Juliflorae ( <i>Acacia aptaneura</i> and <i>Acacia minyura</i> ), <i>Acacia tetragonophylla</i> , and <i>Acacia quadrimarginea</i> mid-sparse shrubland over low-sparse shrubland of <i>Sida ectogama</i> and <i>Ptilotus obovatus</i> on undulating red clay flats with ironstone and quartz pebbling	39.0
A10	<i>Acacia</i> section Juliflorae ( <i>Acacia aptaneura</i> and <i>Acacia minyura</i> ) <i>Acacia tetragonophylla</i> , and <i>Senna artemisioides</i> mid-sparse shrubland over low-sparse shrubland of <i>Ptilotus obovatus</i> and <i>Sida fibulifera</i> on undulating red clay flats with ironstone and quartz pebbling	9.4
C1	<i>Acacia</i> section Juliflorae ( <i>Acacia minyura</i> and <i>Acacia mulganeura</i> ) mid-sparse shrubland over low- sparse chenopod shrubland of <i>Tecticornia pergranulata</i> , <i>Maireana pyramidata</i> , and <i>Sclerolaena cuneata</i> on undulating red-orange, sandy clay flats with ironstone and quartz pebbling	23.7
C2	<i>Hakea preissii</i> and <i>Eremophila platycalyx</i> mid-sparse shrubland over low-sparse chenopod shrubland of <i>Maireana triptera</i> , <i>Sclerolaena cuneata</i> , and <i>Cratystylis subspinescens</i> on undulating red-orange, sandy-clay flats with quartz pebbling	162.7
C5	<i>Acacia</i> section Juliflorae ( <i>Acacia aptaneura</i> ), <i>Eremophila youngii</i> , and <i>Hakea preissii</i> mid-sparse shrubland over low-sparse chenopod shrubland of <i>Maireana pyramidata</i> , <i>Sclerolaena cuneata</i> , and <i>Maireana triptera</i> on undulating red-orange, sandy-clay flats with ironstone and quartz pebbling	29.9
D1	<i>Acacia</i> section Juliflorae ( <i>Acacia aneura</i> and <i>Acacia aptaneura</i> ), and <i>Acacia craspedocarpa</i> tall- open shrubland over mid-open shrubland of <i>Acacia tetragonophylla</i> , <i>Acacia burkittii</i> , and <i>Senna artemisioides</i> over low-open shrubland of <i>Ptilotus obovatus</i> , <i>Solanum lasiophyllum</i> , and <i>Cheilanthes sieberi</i> on red clay soils in minor drainage lines	11.5
D3	<i>Acacia</i> section Juliflorae ( <i>Acacia aneura</i> and <i>Acacia aptaneura</i> ) tall-open shrubland over mid- sparse shrubland of <i>Acacia burkittii</i> , <i>Eremophila youngii</i> , and <i>Senna artemisioides</i> over low- sparse chenopod shrubland of <i>Maireana pyramidata</i> , <i>Sclerolaena cuneata</i> , and <i>Frankenia fecunda</i> on red-orange, sandy-clay soils in minor drainage lines	145.4
R1	<i>Acacia</i> section Juliflorae ( <i>Acacia aneura</i> and <i>Acacia aptaneura</i> ) and <i>Acacia oswaldii</i> tall-sparse shrubland over mid-sparse shrubland of <i>Senna artemisioides</i> and <i>Acacia tetragonophylla</i> over low sparse shrubland of <i>Ptilotus obovatus</i> on skeletal red clay soil on ironstone ridgelines	4.1

None of the vegetation associations were found to be spatially restricted. The R1 vegetation association is in both new application areas, however it is noted that there are minor differences in the description for this associations.

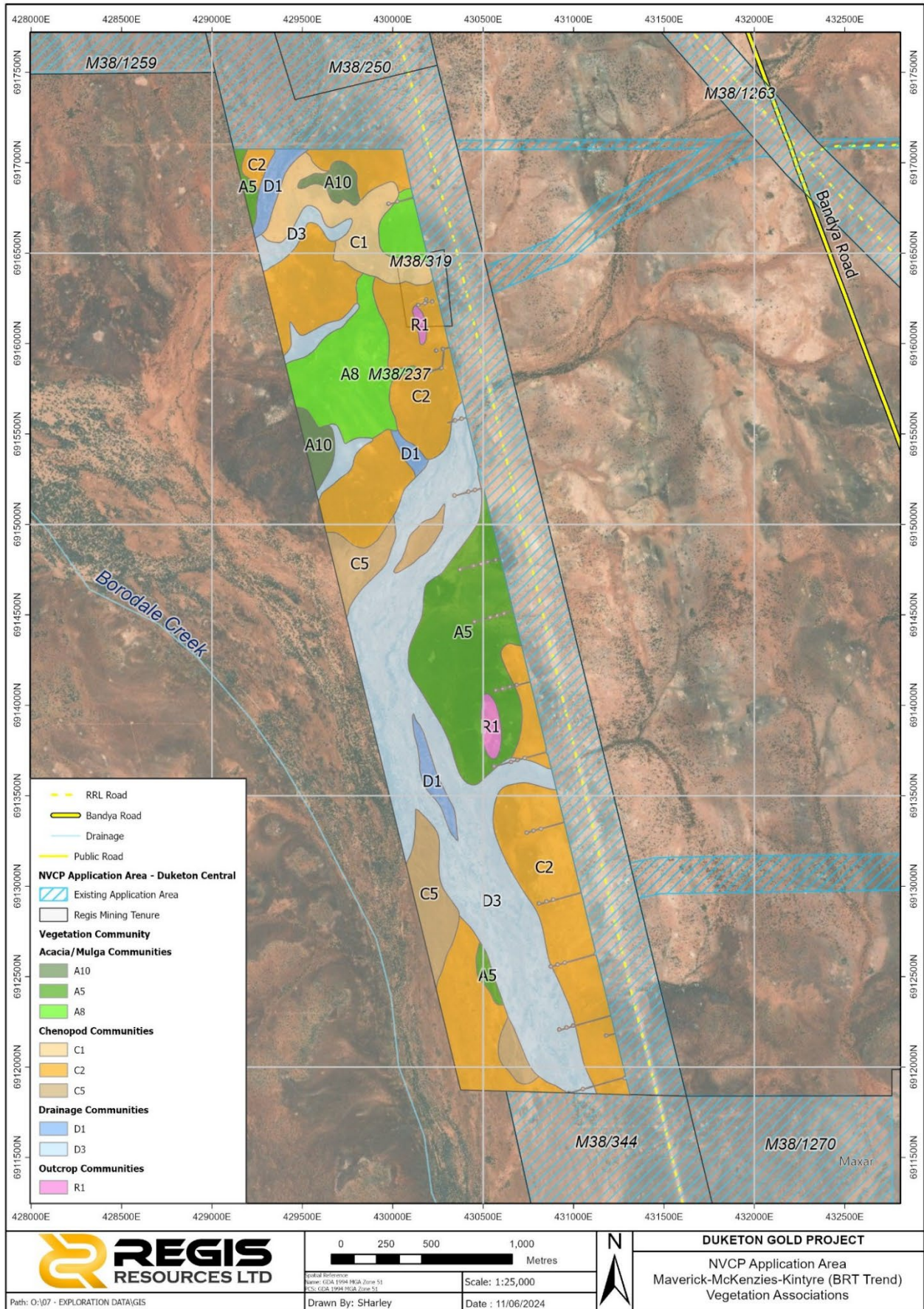


Figure 6:Vegetation Associations at Maverick-McKenzies-Kintyre



The King John application area contains five vegetation associations, out of the eight vegetation associations that were recorded in the 2022 King John/Davies Bore survey.

Table 6: Vegetation Associations in the King John Application Area

Vegetation Association Code	Description	Mapped Area
A22	Tall open shrubland of Acacia sect Juliflorae ( <i>A. aneura</i> , <i>A. Aptaneura</i> , and <i>A. craspedocarpa</i> ) over mid-sparse shrubland of <i>A tetragonophylla</i> , <i>Senna atemisioides</i> subsp. <i>xartemisioides</i> and <i>Sydrax suaveolens</i> over isolated ferns of <i>Chelanthus siberi</i> subsp. <i>siberi</i> on sandy red clay loam in minor drainage lines.	64.3ha
A23	Tall open shrubland of Acacia sect Juliflorae ( <i>A aneura</i> , <i>A aptaneura</i> and <i>A caesaneura</i> ) over mid-sparse shrubland of <i>A tetragonophylla</i> , <i>Eremophila margarethae</i> and <i>Psydrax suaveolens</i> over isolated ferns of <i>Cheilanthes sieberi</i> subsp. <i>sieberi</i> on flats or slopes of red clay with ironstone gravel.	869.9ha
CH2	Low-sparse chenopod shrubland of <i>Sclerolaena cuneata</i> , <i>Maireana villosa</i> , and <i>Cratystylis subspinescens</i> on clay flats with large quartz and ironstone pebbles	243.0ha
CH3	Mid-sparse shrubland of <i>Acacia tetragonophylla</i> , <i>Eremophila platycalyx</i> subsp. <i>platycalyx</i> and <i>Senna artemisioides</i> subsp. <i>xartemisioides</i> over low-isolated chenopod shrubland of <i>Maireana triptera</i> , <i>Maireana villosa</i> and <i>Ptilotus obovatus</i> on clay flats with quartz and ironstone pebbles.	33.7ha
R1	Tall open shrubland of Acacia sect Juliflorae ( <i>A. aptaneura</i> , <i>A. caesaneura</i> , <i>A. incurvaneura</i> ) and <i>Grevillea berryana</i> , over mid-sparse shrubland of <i>A. tetragonophylla</i> , <i>Eremophila latrobei</i> subsp. <i>latrobei</i> and <i>Ptilotus obovatus</i> , over isolated tussock grassland <i>Eriachne mucronata</i> , <i>Digitaria brownii</i> , and <i>Ptilotus shwartzii</i> on skeletal clays on ironstone outcrops.	24.9ha

The R1 vegetation association (and outcrop community) was identified as restricted within the survey area but exists in surrounding areas and more broadly at a regional scale.

### **King John Haulage Network (L38/383)**

The King John application area contains three vegetation associations, out of the eight vegetation associations that were recorded in the 2022 King John/Davies Bore survey.

Table 7: Vegetation Associations in the King John Haulage Network (L38/383) Application Area

Vegetation Association Code	Description	Mapped Area
A22	Tall open shrubland of Acacia sect Juliflorae ( <i>A. aneura</i> , <i>A. Aptaneura</i> , and <i>A. craspedocarpa</i> ) over mid-sparse shrubland of <i>A tetragonophylla</i> , <i>Senna atemisioides</i> subsp. <i>xartemisioides</i> and <i>Sydrax suaveolens</i> over isolated ferns of <i>Chelanthus siberi</i> subsp. <i>sieberi</i> on sandy red clay loam in minor drainage lines.	11.9ha
A23	Tall open shrubland of Acacia sect Juliflorae ( <i>A aneura</i> , <i>A aptaneura</i> and <i>A caesaneura</i> ) over mid-sparse shrubland of <i>A tetragonophylla</i> , <i>Eremophila margarethae</i> and <i>Psydrax suaveolens</i> over isolated ferns of <i>Cheilanthes sieberi</i> subsp. <i>sieberi</i> on flats or slopes of red clay with ironstone gravel.	35.3ha
CH3	Mid-sparse shrubland of <i>Acacia tetragonophylla</i> , <i>Eremophila platycalyx</i> subsp. <i>platycalyx</i> and <i>Senna artemisioides</i> subsp. <i>xartemisioides</i> over low-isolated chenopod shrubland of <i>Maireana triptera</i> , <i>Maireana villosa</i> and <i>Ptilotus obovatus</i> on clay flats with quartz and ironstone pebbles.	27.9ha

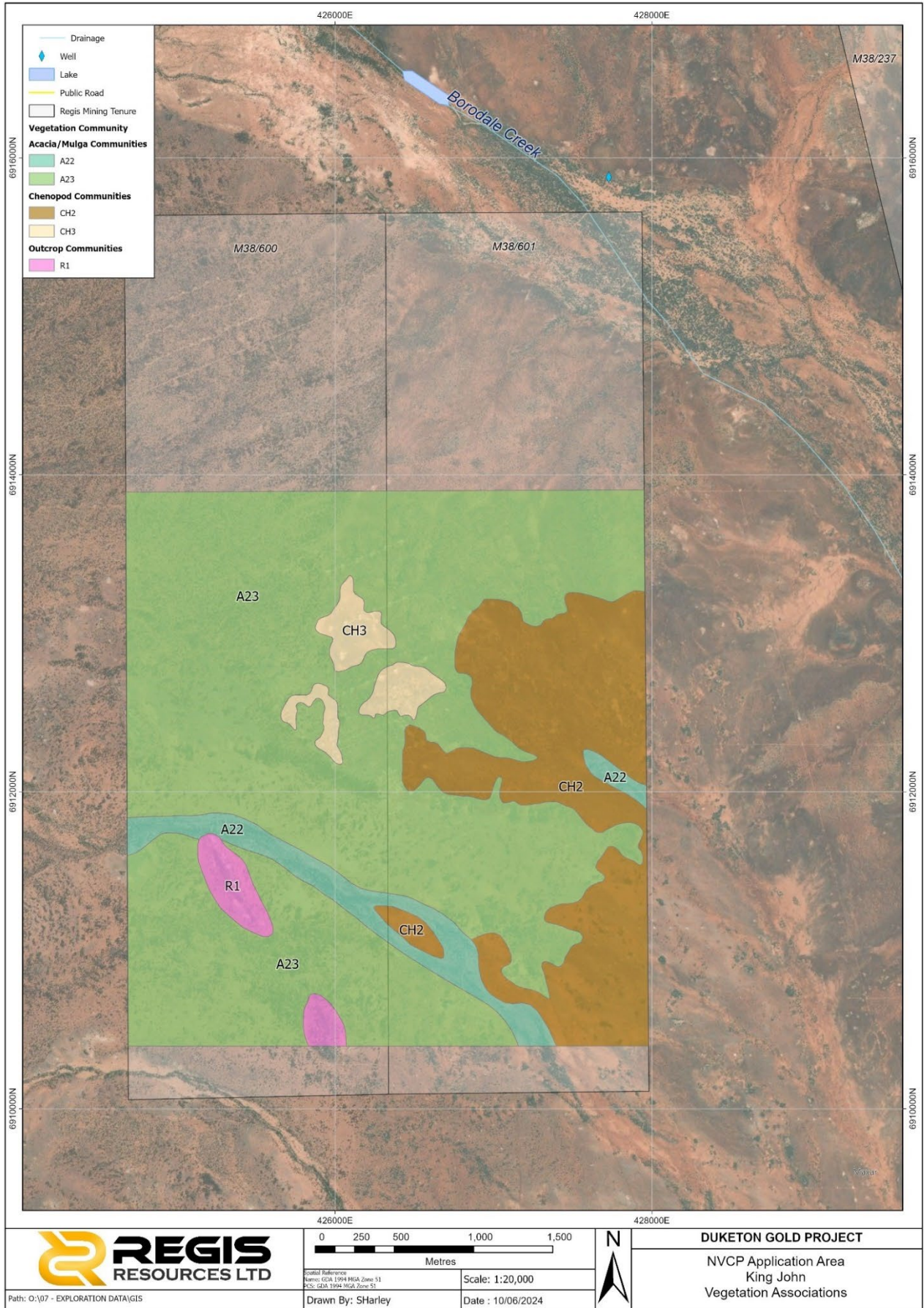


Figure 7:Vegetation Associations at King John

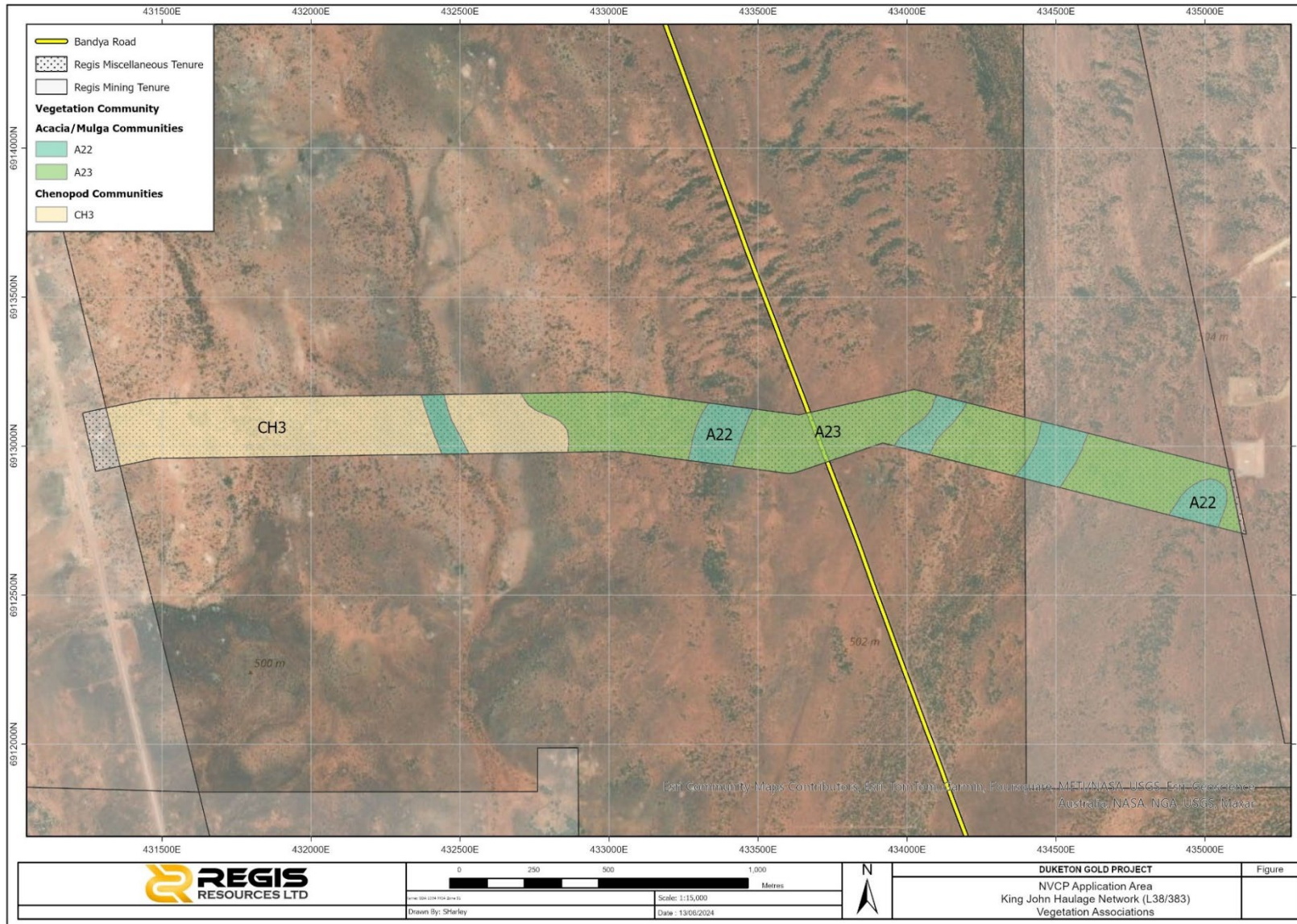


Figure 8:Vegetation Associations at King John Haulage Network (L38/383)

### 3.6.3. VEGETATION CONDITION

Regionally, vegetation condition across the DGP and in areas beyond CPS 9614 is 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 and King John Haulage Network (L38/383) - Vegetation at King John is almost entirely in very good condition with two small patches of Excellent and two patches of Good, of which one coincides with an ephemeral drainage line.
- Maverick-McKenzies-Kintyre – Vegetation is almost entirely in Good condition with a small area of Poor coincident with a drainage line at the northern end of the survey area.

### 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 A22 at King John and D1 and D3 at Maverick-McKenzies-Kintyre, with Borodale Creek present or nearby in both survey areas.

### 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 from the application area.

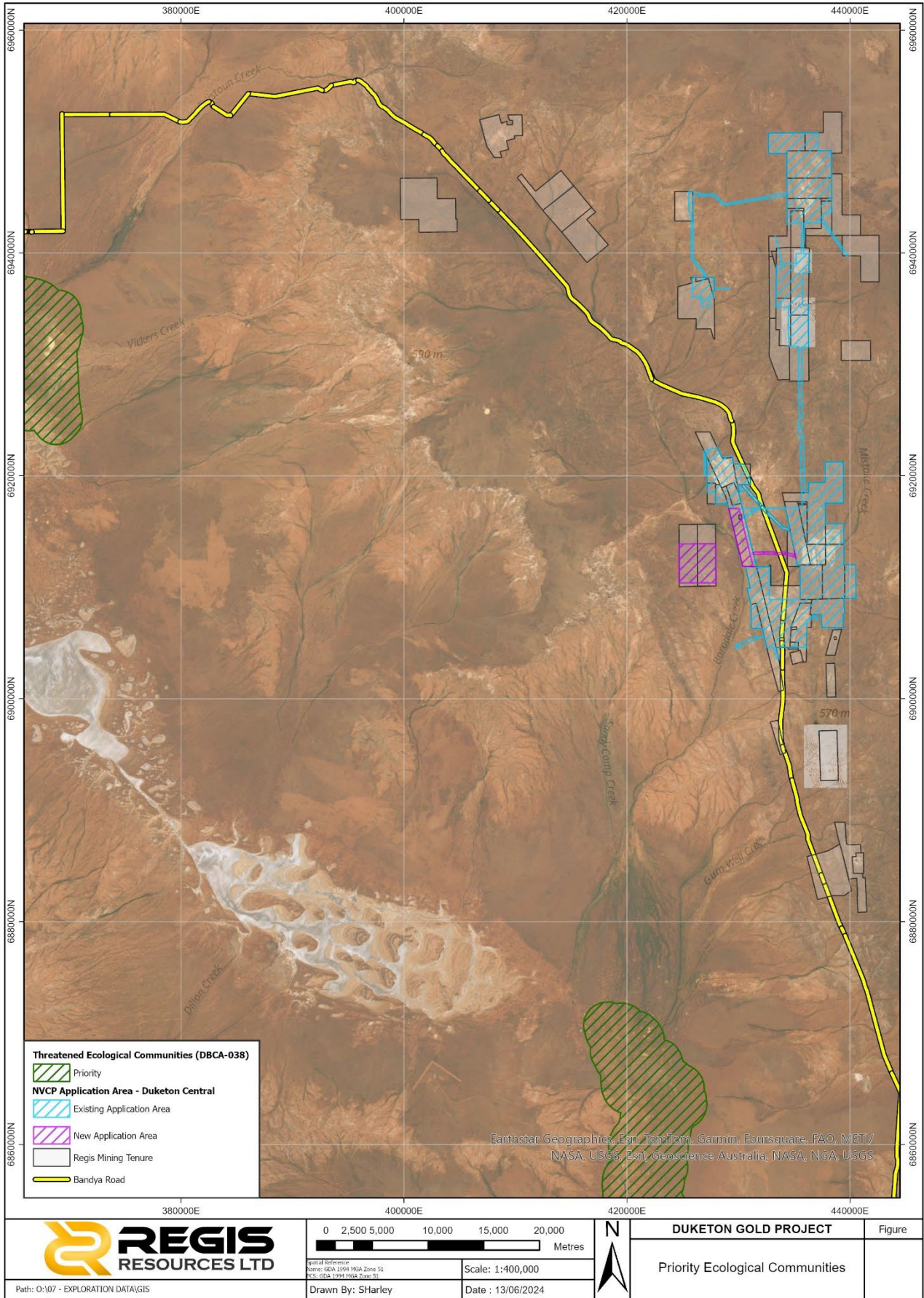


Figure 9: Priority Ecological Communities proximal to Duketon Gold Project

### 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:

- King John and the King John Haulage Network (L38/383)  
*Basic and detailed vertebrate fauna survey and risk assessment* – Northern Project Areas. (Terrestrial Ecosystems 2023)
- Maverick-McKenzies-Kintyre (also known as the BRT Trend)  
*Basic vertebrate fauna survey and risk assessment* – Maverick and McKenzie Project Areas (Terrestrial Ecosystems 2023)

#### 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.
- Mulga woodlands over spinifex – at the northern extremity of the application area.

#### King John

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.

#### Maverick-McKenzies-Kintyre (also known as the BRT Trend)

There is one broad fauna habitat type in the project area: sparse open mulga woodland excluding the historically cleared and disturbed areas (e.g. roads, tracks, exploration areas, etc). This fauna habitat has multiple variations including many areas of bare ground, areas with few trees, chenopod shrubland, ephemeral creek lines and small areas of rocky substrate. The substrate is variable from red sandy-clay to areas with an abundance of stones and a few small areas of low rocky outcrops.

#### 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 8: Current Conservation Significant Species potentially present in the Application Areas (Terrestrial Ecosystems 2023a and b)

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
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	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	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

### 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 across King John and Maverick-McKenzies-Kintyre. Conservation significant fauna to most likely use this 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

950 ha of vegetation will be cleared under the new clearing permit, allowing for approved but unused disturbance under CPS 9614, additional clearing in new areas at King John (and haulage network), Maverick-McKenzies-Kintyre and additional clearing within the existing approved boundary, for mining at Pleco. This will result in direct loss of vegetation, requiring removal of topsoil from disturbance areas.

##### 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.

Other specific actions relevant to this application have been assessments to reduce disturbance activities. These include making assessments of the viability of backfilling open pits as part of a sequence at King John. The application includes full sized waste dumps as decisions to backfill need to satisfy internal sterilisation requirements and those of the Geological Survey of Western Australia.

#### 4.1.2. FLORA

No 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 L38/383). 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.
- Priority Flora locations near vegetation disturbance footprints are avoided from direct and inadvertent impacts wherever possible.
- Site inductions will ensure that personnel have an awareness of Priority Flora expected to occur within the project area.
- 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 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 landforms 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.
- Culverts will be designed and constructed to minimise the extent of upstream ponding and the need for outlet drains.
- Culverts will be sized to accommodate seasonal flows.
- Pipelines will be buried 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. 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 9: 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	<p>Comparison of aerial photography of the survey area and surrounding areas suggests the area under application is typical of the vegetation throughout the region.</p> <p>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.</p> <p>The extent of the disturbance footprint in addition to that previously assessed for CPS 9614 are adjacent to or between existing mine sites.</p>
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	<p>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.</p> <p>Terrestrial Ecosystems have identified the conservation significant fauna with the greatest likelihood occurring (based on occasional, infrequent or potential presence) are avifauna including Peregrine Falcon, Southern Whiteface, Fork-tailed Swift and Princess Parrot.</p>
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 Agriculture, Water and the Environment, 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	<p>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.</p> <p>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.</p>

	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	<p>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 at King John is Very Good. In the case of Maverick-McKenzies-Kintyre, vegetation was generally good condition. The area under this application includes areas with past mining and where grazing of cattle has occurred at varying intensities.</p> <p>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.</p>
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 CPS9614 application 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.

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## 6. REFERENCES

- Aplin, TEH. (1979). 'The flora' in *Environment and Science*, ed. BJ O'Brien, University of Western Australia.
- Beard, J.S. (1990). *Plant life of Western Australia*.
- Bureau of Meteorology. (2021). *Climate Statistics for Laverton*.
- Commonwealth of Australia. (2007). *National Land and Water Resources Audit: Australian Natural Resource Atlas*.
- Cowan, M. (2001). *A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions in 2002. Murchison 1 (MUR1 – East Murchison subregion)*.
- Department of Biodiversity Conservation and Attractions. (2021). *Florabase*.
- Keighery, B.J. (1994). *Bushland Plant Survey. A Guide to Plant Community Survey for the Community*.
- Mattiske Consulting Pty Ltd. (2022). *Detailed Flora and Vegetation Survey: King Jon and Davies Bore Project Areas and Associated Haul Roads Western Australia*
- Mattiske Consulting Pty Ltd. (2023). *Flora and Vegetation Assessment Maverick and McKenzies Project Areas*
- Mattiske Consulting Pty Ltd. (2023). *Memorandum on Database and Merged Mapping*
- Pringle, H. J. R., Van Vreeswyk, A.M.E., and Giligan, S. A. (1994). *An Inventory and Condition Survey of the north-eastern Goldfields, Western Australia*. Technical Bulletin No. 87.
- Terrestrial Ecosystems. (2023a). *Basic and Detailed Vertebrate Fauna Survey and Risk Assessment – Northern Project Areas*.
- Terrestrial Ecosystems. (2023b). *Basic Vertebrate Fauna Survey and Risk Assessment – Maverick and McKenzie Project Areas*
- Tille, P. (2006). *Soil Landscapes of Western Australia's Rangelands and Arid Interior*. Resource Management Technical Report 13.

# APPENDICES

## **APPENDIX 1: TENEMENT SUMMARY REPORTS FOR M38/600, M38/601, AND L38/383**





## MINING TENEMENT SUMMARY REPORT

**MISCELLANEOUS LICENCE 38/383**

Status: Live

<b>TENEMENT SUMMARY</b>
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<b>Area:</b> 77.14375 HA	<b>Death Reason :</b>
<b>Mark Out :</b> 21/08/2023 15:38:16	<b>Death Date :</b>
<b>Received :</b> 21/08/2023 15:38:16	<b>Commence :</b> 16/01/2024
<b>Term Granted :</b> 21 Years	

<b>CURRENT HOLDER DETAILS</b>
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**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

<b>DESCRIPTION</b>
--------------------

**Locality:** Swanson Hill  
**Datum:** Datum is located at GDA94 MGA Zone 51 434024.251 mE 6913190.466 mN  
**Boundary:** GDA94 MGA Zone 51 From the Datum Thence  
 434822.717 mE 6912989.536 mN Thence 435094.662 mE 6912921.102 mN Thence 435138.456 mE 6912704.146 mN Thence 435130.996 mE 6912705.724 mN Thence 435113.092 mE 6912710.229 mN Thence 434773.909 mE 6912795.583 mN Thence 433918.444 mE 6913010.856 mN Thence 433635.047 mE 6912914.308 mN Thence 433627.721 mE 6912912.121 mN Thence 433620.250 mE 6912910.501 mN Thence 433612.677 mE 6912909.455 mN Thence 433605.046 mE 6912908.991 mN Thence 433597.402 mE 6912909.112 mN Thence 433589.790 mE 6912909.816 mN Thence 433037.713 mE 6912982.250 mN Thence 431480.692 mE 6912958.956 mN Thence 431277.188 mE 6912915.890 mN Thence 431233.373 mE 6913111.076 mN Thence 431257.333 mE 6913116.980 mN Thence 431259.008 mE 6913117.378 mN Thence 431261.037 mE 6913117.819 mN Thence 431449.513 mE 6913156.737 mN Thence 431455.708 mE 6913157.814 mN Thence 431461.958 mE 6913158.500 mN Thence 431468.240 mE 6913158.792 mN Thence 433040.517 mE 6913182.297 mN Thence 433048.405 mE 6913182.147 mN Thence 433056.269 mE 6913181.530 mN Thence 433636.772 mE 6913105.225 mN Thence back to the Datum 434024.251 mE 6913190.466 mN

<b>Area :</b>	<b>Type</b>	<b>Dealing No</b>	<b>Start Date</b>	<b>Area</b>
	Granted		16/01/2024	77.14375 HA

Applied For

21/08/2023

77.14000 HA

**SHIRE DETAILS**

<b>Shire</b>	<b>Shire No</b>	<b>Start</b>	<b>End</b>	<b>Area</b>
LAVERTON SHIRE	4970	21/08/2023		77.14375 HA



## MINING TENEMENT SUMMARY REPORT

**MINING LEASE 38/600**

**Status: Live**

### TENEMENT SUMMARY

<b>Area:</b> 917.30000 HA	<b>Death Reason :</b>
<b>Mark Out :</b> 08/10/1997 13:45:00	<b>Death Date :</b>
<b>Received :</b> 15/10/1997 15:46:00	<b>Commence :</b> 18/04/2007
<b>Term Granted :</b> 21 Years	

### CURRENT HOLDER DETAILS

**Name and Address**

CREASY, Mark Gareth  
C/- M & M WALTER CONSULTING, PO BOX 8197, SUBIACO EAST, WA, 6008, xxxxx@mmwc.com.au, xxxxxxxxxxx866

DUKETON RESOURCES PTY LTD  
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:** MURPHY HILLS  
**Datum:** Datum situated at ZONE 51: AMG Co-ordinates: 426173 east and 6915472 north  
**Boundary:** FROM DATUM: 5551 metres bearing 180 degrees 1629 metres bearing 270 degrees 5551 metres bearing zero degrees 1629 metres bearing 90 degrees BACK TO DATUM

Area :	Type	Dealing No	Start Date	Area
	Surveyed		02/11/2007	917.30000 HA
	Granted		18/04/2007	904.00000 HA
	Applied For		08/10/1997	904.00000 HA

### SHIRE DETAILS

Shire	Shire No	Start	End	Area
LAVERTON SHIRE	4970	08/10/1997		917.30000 HA



## MINING TENEMENT SUMMARY REPORT

**MINING LEASE 38/601**

Status: Live

### TENEMENT SUMMARY

**Area:** 906.60000 HA      **Death Reason :**  
**Mark Out :** 08/10/1997 16:50:00      **Death Date :**  
**Received :** 15/10/1997 15:46:00      **Commence :** 18/04/2007  
**Term Granted :** 21 Years

### CURRENT HOLDER DETAILS

**Name and Address**

CREASY, Mark Gareth  
 C/- M & M WALTER CONSULTING, PO BOX 8197, SUBIACO EAST, WA, 6008, xxxxx@mmwc.com.au,  
 xxxxxxxxxxx866  
 DUKETON RESOURCES PTY LTD  
 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:** MURPHY HILLS  
**Datum:** Datum situated at ZONE 51: AMG Co-ordinates 427818  
 east and 6915495 north  
**Boundary:** FROM DATUM: 5552 metres bearing 180 degrees 1642  
 metres bearing 270 degrees 5551 metres bearing zero  
 degrees 1645 metres bearing 90 degrees BACK TO  
 DATUM

Area :	Type	Dealing No	Start Date	Area
	Surveyed		02/11/2007	906.60000 HA
	Granted		18/04/2007	913.00000 HA
	Applied For		08/10/1997	913.00000 HA

### SHIRE DETAILS

Shire	Shire No	Start	End	Area
LAVERTON SHIRE	4970	08/10/1997		906.60000 HA