



Clearing Permit Decision Report

1. Application details and outcomes

1.1. Permit application details

Permit number:	10140/1
Permit type:	Purpose Permit
Applicant name:	Regis Resources Limited
Application received:	28 March 2023
Application area:	354.125 hectares
Purpose of clearing:	Mineral production
Method of clearing:	Mechanical Removal
Tenure:	Mining Lease 38/1305
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 354.125 hectares of native vegetation within a boundary of approximately 354.125 hectares, for the purpose of mineral production. The project is located approximately 110 kilometres north of Laverton, within the Shire of Laverton.

The application is to allow for the clearing of native vegetation to develop the Duketon Gold Project for mineral production.

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	25 May 2023
Decision area:	354.125 hectares of native vegetation

1.4. Reasons for decision

This clearing permit application was made in accordance with section 51E of the *Environmental Protection Act 1986* (EP Act) and was received by the Department of Mines, Industry Regulation and Safety (DMIRS) on 28 March 2023. DMIRS 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), the contents of a flora and vegetation survey (Appendix D), the clearing principles set out in Schedule 5 of the EP Act (Appendix C), proposed avoidance and minimisation measures (Section 3.1), relevant planning instruments and any other matters considered relevant to the assessment (Section 3.3).

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; and
- loss of water flows and vegetation growing in association with a watercourse.

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 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; and
- vegetation management to avoid clearing of riparian vegetation were possible and maintain water flows.

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)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Mining Act 1978* (WA)

Relevant agreements (treaties) considered during the assessment include:

- Japan-Australia Migratory Bird Agreement
- China-Australia Migratory Bird Agreement
- Republic of Korea-Australia Migratory Bird Agreement

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

The applicant had advised that there are management controls in place to minimise and mitigate the potential impacts from the proposed clearing (Regis, 2023). The management controls mentioned include:

Land clearing

- inductions to 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;
- 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; and
- clearing activities will be undertaken on an as required basis, rather than the full footprint of the planned disturbance.

Flora

- vegetation clearing will be minimised, with preferential use of previously disturbed or degraded areas where possible;
- temporary use areas will be biased towards areas identified for future strip mining;
- progressive rehabilitation will be undertaken as soon as practicable; and
- dust suppression will be regularly undertaken on high traffic roads to minimise potential dust related impacts on adjacent vegetation.

Introduced flora

- 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;
- any new weed infestations will be reported as an environmental incident;
- if substantial populations of weeds are identified, targeted weed spraying will be implemented; and
- work areas will be inspected for weeds on an ongoing basis.

Topsoil and rehabilitation

- topsoil will be stripped and stockpiled as part of clearing works;
- topsoil and vegetation will be respread over disused areas;
- no burning of vegetation spoil will occur;
- disused compacted surfaces will be scarified to a depth of approximately 500 mm, along contour lines, should ground conditions and hydrology allow;
- large rocks and logs will be placed in rehabilitation areas to simulate fauna habitats; and
- where appropriate, natural drainage patterns will be reinstated.

Fauna

- an employee induction program outlining fauna and habitat of conservation significance will be implemented.

The applicant 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 avoid and minimise and hygiene management conditions.

3.3. Relevant planning instruments and other matters

The clearing permit application was advertised on 28 April 2023 by the Department of Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

There is no native title claim over the area under application (DPLH, 2023). 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 no registered Aboriginal Sites of Significance within the application area (DPLH, 2023). 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 native vegetation and it is adjacent to Lake Wells Rd and intersected by an unsealed track (GIS Database).
Ecological linkage	The application area does not form part of any formal or informal ecological linkages (GIS Database).
Conservation areas	The application area does not form part of any known or mapped conservation areas. The closest conservation area is De La Poer Range Nature Reserve which is located approximately 32 kilometres northeast of the application area (GIS Database).
Vegetation description	<p>The vegetation of the application area is broadly mapped as the following Beard vegetation association: 18: Low woodland; mulga (<i>Acacia aneura</i>) (GIS Database).</p> <p>A flora and vegetation survey was conducted over the application area by Mattiske Consulting Pty Ltd during July 2022. The following vegetation associations were recorded within the application area (Mattiske, 2022):</p> <p>A5: Mid-sparse shrubland of <i>Acacia aptaneura</i> and <i>Acacia tetragonophylla</i> over low sparse shrubland of <i>Senna artemisioides</i> on sandy red clay in minor drainage lines.</p> <p>A22: Tall open shrubland of <i>Acacia</i> sect. <i>Juliflorae</i> (<i>A. aneura</i>, <i>A. aptaneura</i>, and <i>A. fuscanaura</i>) over mid-sparse shrubland of <i>A. tetragonophylla</i>, <i>Eremophila pungens</i> (P4), and <i>Psyrdrax suaveolens</i> over isolated ferns of <i>Cheilanthes sieberi</i> subsp. <i>sieberi</i> on red clay loam in minor drainage lines.</p> <p>A23: Tall open shrubland of <i>Acacia</i> sect. <i>Juliflorae</i> (<i>A. aneura</i>, <i>A. aptaneura</i>, and <i>A. fuscanaura</i>) over mid-sparse shrubland of <i>A. tetragonophylla</i> and <i>Psyrdrax suaveolens</i> over isolated ferns of <i>Cheilanthes sieberi</i> subsp. <i>sieberi</i> on flats or slopes of red clay with ironstone gravel.</p> <p>CH1: Mid-isolated shrubs of <i>Acacia aneura</i> and <i>Acacia aptaneura</i> over low sparse chenopod shrubland of <i>Sclerolaena cuneata</i>, <i>Sclerolaena ericantha</i>, and <i>Maireana georgei</i> on red clay flats with quartz pebbles.</p> <p>Vegetation mapping is available in Appendix D.</p>
Vegetation condition	<p>The vegetation survey (Mattiske, 2022) and aerial imagery indicate the vegetation within the proposed clearing area is in Very Good to Good (Trudgen, 1991) condition.</p> <p>The full Trudgen (1991) condition rating scale is provided in Appendix C.</p>
Climate	The application area is located in an arid zone with an annual average rainfall of approximately 235.2 millimetres (BoM, 2023).
Soil description	The soil within the application area is mapped as soil unit BE8 (GIS Database). 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 also present (Northcote et al. 1960-68).
Land systems and land degradation risks	The majority of the application area falls within two different land systems, the Steer and the Felix land systems (DPIRD, 2023). The Felix land system is described as gently undulating plains with quartz mantles, supporting acacia-eremophila shrublands locally with wanderrrie grasses (DPIRD, 2023). Stone mantles provide effective protection of the soil against erosion (Pringle et al., 1994). The Steer land system is described as gravelly alluvial plains supporting chenopod shrublands (DPIRD, 2023). This land system is generally not susceptible to erosion, partly as a consequence of protective stone and gravel soil mantles (Pringle et al., 1994). Unprotected areas on alluvial plains and, more particularly, on drainage floors, are susceptible to water erosion (Pringle et al., 1994).
Waterbodies	The desktop assessment and aerial imagery indicated that there are three watercourses transecting the area proposed to be cleared (GIS Database).
Hydrogeography	The application area is located within the Goldfields Groundwater Area which is legislated by the <i>RIWI Act 1914</i> (GIS Database). The mapped groundwater salinity is of 500-1,000 milligrams per litre dissolved solids which is described as marginal (GIS Database).
Flora	There are no Threatened flora species recorded within the application area (Mattiske, 2022; GIS Database). One Priority 4 flora species was recorded within the application area (Mattiske, 2022). Five other Priority species were considered likely to occur within the application area (Mattiske, 2022). Only records within a 20 kilometre radius (local area) of the application area were deemed to require further consideration (see section A.2).

Characteristic	Details
Ecological communities	There are no known or mapped Threatened or Priority Ecological Communities that intersect or are located within the application area (Mattiske, 2022; GIS Database). The closest record is of a Priority 1 PEC located approximately 54 kilometres west of the application area (GIS Database).
Fauna	There are no conservation significant species within the application area (Terrestrial Ecosystems, 2023; GIS Database). However three Priority species were deemed to be potentially present in the application area (Terrestrial Ecosystems, 2023). Other conservation significant species were deemed highly unlikely to occur within the application area due to lack of suitable habitat and nearby records (see section A.3).

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. Only records located within 20 kilometres of the application area were considered.

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>Calytrix praecipua</i>	P3	Y	Y	Y	12 km	28	Y
<i>Eremophila pungens</i>	P4	Y	Y	Y	0 km	45	Y
<i>Lysiandra baeckeoides</i>	P3	Y	Y	Y	12.1 km	31	Y
<i>Mirbelia stipitata</i>	P3	Y	Y	Y	12.8 km	2	Y

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

(Western Australian Herbarium, 1998-; GIS Database).

A.3. Fauna analysis table

Species	DBCA Schedule / Priority	Status under Commonwealth EPBC Act 1999	Comment on the potential presence of a species and potential impact from development
Night Parrot <i>Pezoporus occidentalis</i>	Critically Endangered	Endangered	Highly unlikely to be in the project area, due to a lack of suitable habitat. The potential for impacting on this species is therefore very low.
Sandhill Dunnart <i>Sminthopsis psammophila</i>	Endangered	Endangered	Highly unlikely to be recorded in the project area due to a lack of suitable habitat, lack of nearby records and abundance of predators.
Malleefowl <i>Leipoa ocellata</i>	Vulnerable	Vulnerable	Highly unlikely to be in the project area due to a lack of suitable habitat, lack of regional records and high density of feral fauna. The potential for impacting on this species is therefore very low.
Bilby <i>Macrotis lagotis</i>	Vulnerable	Vulnerable	Highly unlikely to be recorded in the project area due to a lack of suitable habitat, lack of regional records and abundance of predators.
Great Desert Skink <i>Liopholis kintorei</i>	Vulnerable	Vulnerable	Highly unlikely to be recorded in the project area due to a lack of suitable habitat, lack of recent records and abundance of predators.
Grey Falcon <i>Falco hypoleucos</i>	Vulnerable	Vulnerable	Highly unlikely to occur in the project area. The potential for impacting on this species is therefore very low.
Chuditch <i>Dasyurus geoffroii</i>	Vulnerable	Vulnerable	Locally extinct
Princess Parrot <i>Polytelis alexandrae</i>	Priority 4	Vulnerable	May infrequently be seen in the region, however, clearing vegetation or mining activity is unlikely to impact on this species.

Mulgara <i>Dasyercus blythi</i>	Priority 4		Highly unlikely to be in the project area due to a lack of suitable habitat. The potential for impacting on this species is therefore very low.
Long-tailed Dunnart <i>Sminthopsis longicaudata</i>	Priority 4		Unlikely to be in the project area due to a lack of typical habitat, lack of nearby records and high density of feral fauna. The potential for impacting on this species is therefore low.
Peregrine Falcon <i>Falco peregrinus</i>	OS		May infrequently be seen in the region, however, clearing vegetation is unlikely to impact on this species.
Oriental Plover <i>Charadrius veredus</i>	Migratory	Migratory	Highly unlikely to be recorded in the project area due to a lack of suitable habitat and abundance of predators.
Fork-tailed Swift <i>Apus pacificus</i>	Migratory	Migratory	May very infrequently be seen in the region, however, clearing vegetation is unlikely to impact on this aerial species.
Grey Wagtail <i>Motacilla cinerea</i>	Migratory	Migratory	Highly unlikely to be present in the project area. The potential for impacting on this species is therefore low.
Yellow Wagtail <i>Motacilla flava</i>	Migratory	Migratory	Highly unlikely to be present in the project area. The potential for impacting on this species is therefore low.

(Terrestrial Ecosystems, 2023).

Appendix B. Assessment against the clearing principles		
Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<p><u>Principle (a):</u> "Native vegetation should not be cleared if it comprises a high level of biodiversity."</p> <p><u>Assessment:</u></p> <p>Priority 4 flora species <i>Eremophila pungens</i> is present in the application area (Mattiske, 2022). This species is not restricted to the application area, it is widespread across three IBRA regions and several populations are located within nature reserves and protected areas (Western Australian Herbarium, 1998-). Therefore, the proposed clearing is unlikely to have a significant impact on this Priority flora species.</p> <p>No conservation significant fauna species were recorded within the application area (Terrestrial Ecosystems, 2023; GIS Database). There are no known or mapped Priority Ecological Communities intersecting the application area (GIS Database). There were no introduced (weed) species recorded within the application area (Mattiske, 2022). However, nine weed species were identified by previous field and desktop surveys. None of these species are Declared Pests or Weeds of National Significance.</p> <p>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.</p>	Not likely to be at variance	No
<p><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."</p> <p><u>Assessment:</u></p> <p>The application area contains one fauna habitat, the mulga woodland over sparse shrubs and grasses (Terrestrial Ecosystems, 2023). The vegetation associations within the project area are well represented within the broader region and is without specific habitats of significance to conservation significant fauna (Regis, 2023). Only three fauna species (see section A.3) of conservation significance have the potential to occur within the application area and may infrequently be seen in the region (Terrestrial Ecosystems, 2023). Given these species may only use the application area as transient vagrants, and the application area is common and widespread across the region, clearing of native vegetation is unlikely to impact on these species.</p>	Not likely to be at variance	No
<p><u>Principle (c):</u> "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."</p> <p><u>Assessment:</u></p>	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
No Threatened flora species have been recorded within the application area (Mattiske, 2022; GIS Database).		
<p>Principle (d): <i>“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.”</i></p> <p><u>Assessment:</u></p> <p>There are no known or mapped Threatened Ecological Communities within or intersecting the application area (Mattiske, 2022; GIS Database).</p>	Not likely to be at variance	No
Environmental value: significant remnant vegetation and conservation areas		
<p>Principle (e): <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u></p> <p>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 association 18 (GIS Database). This vegetation association has 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).</p>	Not at variance	No
<p>Principle (h): <i>“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></p> <p><u>Assessment:</u></p> <p>Given the distance to the nearest conservation area (32 kilometres), the proposed clearing is not likely to have an impact on the environmental values of any known or mapped conservation areas (GIS Database).</p>	Not likely to be at variance	No
Environmental value: land and water resources		
<p>Principle (f): <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u></p> <p>Given three drainage lines intersect the application area, the proposed clearing is likely to impact vegetation growing in association with a watercourse or wetland (GIS Database). The potential impacts from the proposed clearing can be managed by placing a vegetation management condition on the clearing permit to avoid the clearing of riparian vegetation where possible and maintaining water flows.</p>	At variance	No
<p>Principle (g): <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u></p> <p>The land systems mapped within the application area are not susceptible to wind erosion (Pringle et al., 1994). The zones susceptible to water erosion (alluvial plains and drainage floors) are not present within the application area (GIS Database). Noting the location of the application area, the proposed clearing is not likely to have an appreciable impact on land degradation.</p>	Not likely to be at variance	No
<p>Principle (i): <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.”</i></p> <p><u>Assessment:</u></p> <p>Given no watercourses, wetlands, or Public Drinking Water Source Areas are recorded within the application area (GIS Database), the proposed clearing is unlikely to impact surface or ground water quality.</p>	Not likely to be at variance	No
<p>Principle (j): <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</i></p> <p><u>Assessment:</u></p>	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Given no water courses or wetlands are recorded within the application area (GIS Database) and that the average annual evaporation (2,600 millimetres) is higher than the average annual rainfall (235.2 millimetres) (BoM, 2023), 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.

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

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 their vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs.

Appendix D. Maps from vegetation survey

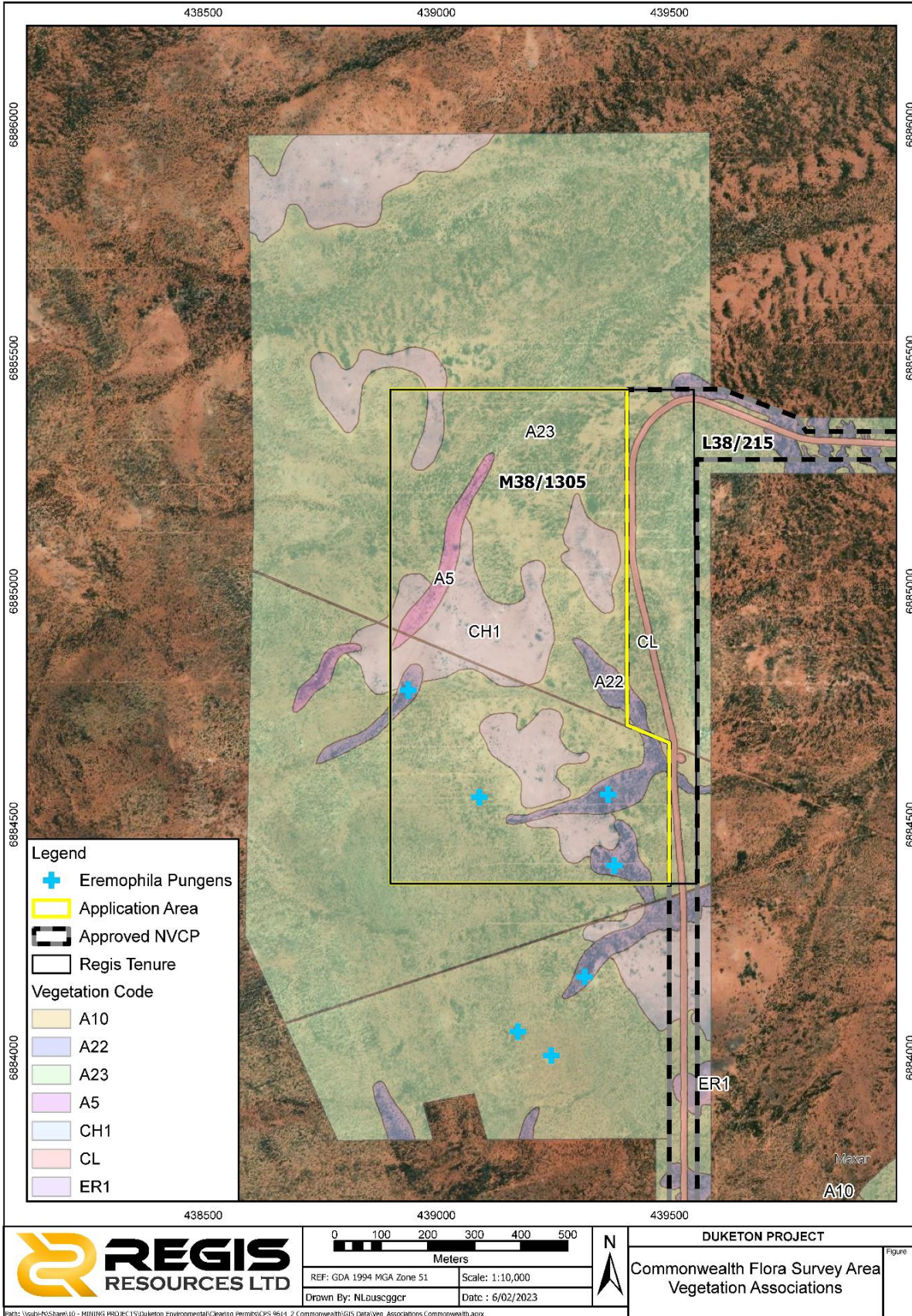


Figure 1. Vegetation mapping of the application area (Mattiske, 2022).

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
- 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)

E.2. References

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- Department of Planning, Lands and Heritage (DPLH) (2023) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. <https://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS> (Accessed 28 April 2023).
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- Government of Western Australia (2019) 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>
- Mattiske (2022) Detailed Flora and Vegetation Survey: Ventnor and Commonwealth Project Areas, Western Australia. Prepared by Mattiske Consulting Pty Ltd for Regis Resources Ltd, September 2022.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68) Atlas of Australian Soils, Sheets 1 to 10, with explanatory data. CSIRO and Melbourne University Press: Melbourne.
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- Regis Resources Limited (Regis) (2023) Purpose Permit Application Duketon Gold Project – Commonwealth Gold Mine M38/1305, March 2023.
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4. Glossary

Acronyms:

BC Act	<i>Biodiversity Conservation Act 2016, Western Australia</i>
BoM	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
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia
DMP	Department of Mines and Petroleum, Western Australia (now DMIRS)
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	<i>Environmental Protection Act 1986, Western Australia</i>
EPA	Environmental Protection Authority, Western Australia
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)</i>
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
RIWI Act	<i>Rights in Water and Irrigation Act 1914, Western Australia</i>
TEC	Threatened Ecological Community

Definitions:

{DBCA (2019) Conservation Codes for Western Australian Flora and Fauna. Department of Biodiversity, Conservation and Attractions, Western Australia}:-

T **Threatened species:**

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 that subset of ‘Specially Protected Fauna’ listed under schedules 1 to 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for Threatened Fauna.

Threatened flora is that subset of ‘Rare Flora’ listed under schedules 1 to 3 of the *Wildlife Conservation (Rare Flora) Notice 2018* for Threatened Flora.

The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

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. Published under schedule 1 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for critically endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for critically endangered flora.

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. Published under schedule 2 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for endangered flora.

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. Published under schedule 3 of the *Wildlife Conservation*

(*Specially Protected Fauna*) Notice 2018 for vulnerable fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for vulnerable flora.

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).

Published as presumed extinct under schedule 4 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for extinct fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for extinct flora.

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. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.

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).

Includes birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and 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.

Published as migratory birds protected under an international agreement under schedule 5 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

CD Species of special conservation interest (conservation dependent fauna)

Fauna of special conservation need being species 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).

Published as conservation dependent fauna under schedule 6 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

OS Other specially protected species

Fauna 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).

Published as other specially protected fauna under schedule 7 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

P Priority species:

Possibly threatened species that do not meet survey criteria, 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 priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened fauna or flora.

Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna

lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring.

Assessment of Priority codes 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.

P1 Priority One - Poorly-known species

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, e.g. 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 and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.

P2 Priority Two - Poorly-known species

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, e.g. 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 and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.

P3 Priority Three - Poorly-known species

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. 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. Such species are in need of 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 Conservation Dependent.

(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

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.