

# **Clearing Permit Decision Report**

# 1. Application details and outcomes

# 1.1. Permit application details

Permit number: 8329/2

Permit type: Purpose Permit

Applicant name: Silver Lake Resources Limited

**Application received:** 13 November 2023

**Application area:** 140 hectares

Purpose of clearing: Mineral Production and Associated Activities

Method of clearing: Mechanical Removal

**Tenure:** Mining Leases 25/71, 25/125, 25/133, 25/236

Miscellaneous Licences 25/27, 25/41

Location (LGA area/s): City of Kalgoorlie-Boulder

Colloquial name: Mt Belches Transportation Corridor

### 1.2. Description of clearing activities

Silver Lake Resources Limited proposes to clear up to 140 hectares of native vegetation within a boundary of approximately 888 hectares, for the purpose of mineral production and associated activities. The project is located approximately 64 kilometres southeast of Kalgoorlie, within the City of Kalgoorlie-Boulder.

The application is to allow for the exaption of the existing Santa Project operations (Silver Lake, 2023). Approximately 25.81 hectares of native vegetation has been cleared under this permit (Silver Lake, 2023).

Clearing permit CPS 8329/1 was granted by the Department of Mines, Industry Regulation and Safety (now the Department of Energy, Mines, Industry Regulation and Safety) on 11 April 2019 and was valid from 4 May 2019 to 3 May 2024. The permit authorised the clearing of up to 70 hectares of native vegetation within a boundary of approximately 888 hectares, for the purpose of mineral production and associated activities.

On 13 November 2023, the Permit Holder applied to amend CPS 8329/1 to increase the amount authorised to clear from 70 hectares to 140 hectares, and extend the permit duration by five years, to 3 May 2029. The permit boundary remains unchanged.

# 1.3. Decision on application and key considerations

Decision: Grant

Decision date: 16 April 2024

**Decision area:** 140 hectares of native vegetation

# 1.4. Reasons for decision

This clearing permit application was made in accordance with section 51KA(1) of the *Environmental Protection Act 1986* (EP Act) and was received by the Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) on 13 November 2023. DEMIRS advertised the application for a public comment for a period of 21 days, and one submission was received.

In making this decision, the Delegated Officer had regard for the site characteristics (Appendix B), relevant datasets (Appendix E), supporting information provided by the applicant including the results of biological surveys, 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;
- impacts to a priority ecological community;
- impacts to a timber reserve;
- the loss of riparian vegetation; and
- potential land degradation in the form of water erosion.

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

The conditions that were imposed on clearing permit CPS 8329/1 are considered adequate to manage the impacts of clearing:

- take hygiene steps to minimise the risk of the introduction and spread of weeds;
- staged clearing to minimise erosion; and
- vegetation management condition to minimise the clearing to riparian vegetation where practicable and to maintain surface water flows and/or reinstate water flow downstream into existing natural drainage lines.

The following conditions were not imposed on clearing permit CPS 8329/1, however will be imposed on this version:

· avoid, minimise to reduce the impacts and extent of clearing.

The assessment has not changed since the assessment for CPS 8329/1. The Delegated Officer determined that the proposed amendment to increase the amount authorised to clear from 70 hectares to 140 hectares, and extend the permit duration by five years, to 3 May 2029 is not likely to lead to an unacceptable risk to environmental values.

# 2. Legislative context

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

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

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

Other legislation of relevance for this assessment include:

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

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, 2014)
- Procedure: Native vegetation clearing permits (DWER, 2021)
- Guidance for the Assessment of Environmental Factors Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia (EPA, 2004)
- Technical guidance Flora and Vegetation Surveys for Environmental Impact Assessment (EPA, 2016a)
- Technical guidance Terrestrial Fauna Surveys for Environmental Impact Assessment (EPA, 2016b)

### 3. Detailed assessment of application

# 3.1. Avoidance and mitigation measures

Silver Lake's Environmental Management Plan was last reviewed in 2021, which outlined the following measures to manage impacts (Silver Lake, 2021):

- clearing the minimum necessary native vegetation for safe construction and operation of the Project
- managing all new ground disturbance through the internal Surface Disturbance Permit (SDP) process
- clearing of the P3 PEC vegetation will be avoided where possible and kept to the minimum approved area if unavoidable
- conducting operations in accordance with the Conservation Management Plan
- · minimising disturbed areas and progressively rehabilitating to avoid colonisation by weed species and dust generation
- controlling off-road vehicle use with no driving permitted off designated routes
- all earthmoving vehicles are inspected to be clear of weeds, soil and vegetative matter before mobilisation, including submission of signed Weed Hygiene checklist
- using provenance seed in the rehabilitation programme
- using dribble bars on all water trucks to limit spray drift impact on surrounding vegetation
- adhering to procedures to prevent and control the spread of weeds
- educating personnel about dust management and clearing within the Randell Timber Reserve will be included in the induction and training programs
- providing inductions and ongoing education about minimising impacts to fauna
- implementing sound hygiene practices including appropriate disposal of wastes to avoid attracting feral species
- using trained reptile removers to remove trapped reptiles away from the impact area
- installing fauna egress matting in each corner of turkey nests/dams and also fencing if required
- SLR will consult with the pastoralist regarding feral animal management including appropriate goat management in consultation with DBCA if required

- minimising impact on natural surface water flows where possible by designing the Project to avoid existing drainage lines
- where impacts to drainage lines are unavoidable:
  - constructing diversion drains and bunding to divert natural surface water flow around landforms
  - o reinforcing landform toes with competent waste rock at this location to reduce erosion impacts
  - o lining drains with competent NAF waste rock in erosion prone locations
  - o installing designed floodways and/or culverts at drainage line road crossings
  - o modify drainage management if ponding occurs
- installing dewatering pipelines next to infrastructure ensuring potential adverse impacts on the surrounding environment is minimised
- inspecting mine site infrastructure and surrounding areas after significant rainfall to identify any pooling or damage done as a result of surface flows
- leaving vegetation corridors between mining infrastructure areas, where possible, to provide soil stability and maintain existing surface water flows.

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

A review of current environmental information (Appendix B) reveals that the assessment against the clearing principles has not changed significantly from the Clearing Permit Decision Report CPS 8329/1.

The additional proposed clearing area (70 hectares to 140 hectares) will further impact the 'Mount Belches *Acacia quadrimarginea | Ptilotus obovatus* banded ironstone community' priority ecological community. Given the extent of the additional clearing and the avoid and mitigation measures proposed and conditioned on the permit, the clearing is not considered to have result in significant impacts to this community. The additional proposed clearing area is not likely to contain locally / regionally significant flora or fauna species.

# 3.2.1. Biological values and conservation areas (priority ecological community and timber reserve) - Clearing Principles (a) and (h)

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

The application area is mapped within the 'Mount Belches *Acacia quadrimarginea | Ptilotus obovatus* banded ironstone community' priority ecological community (P3) (GIS Database). This PEC is only known from this one location, and is primarily restricted to the Randall Timber Reserve, making it a unique area (DBCA, 2023; 2024b; GIS Database).

Flora and vegetation surveys conducted by Outback Ecology (2009a; 2013) assessed an approximately 3,215 hectare area, of which 683.4 hectares coincides with the application area. These surveys determined approximately 256.2 hectares represent the PEC, 45.1 hectares of which is located within the application area.

The extent of the PEC should encompass all vegetation units associated with the banded ironstone formation and outwash geology (DBCA, 2024b). The areas mapped by Outback Ecology (2009a, 2013) were restricted to the banded ironstone hills and ridges and did not consider the outwash geology potentially supporting associated PEC vegetation units.

Botanica (2023) undertook a targeted survey to define the boundary of the PEC in August 2023. The assessment determined approximately 131.2 hectares of the application area represents the PEC, making the extent of the PEC considerably larger when compared to what was mapped by Outback Ecology (2009a; 2013). Given Botanica (2023) considered the outwash geology as potentially supporting the PEC, it is reasonable to include the extended areas as the PEC.

Silver Lake (2023) have stated that a total of 14 hectares (inclusive of previous impacts) of the PEC will be impacted to expand their existing operations, some of which will be impacted from clearing under this permit and other clearing permits associated with broader project. An impact of 14 hectares represents approximately 0.5% of the full extent of the PEC (3,221.5 hectares) mapped by Botanica (2023).

Approximately 97% of the application area is located within the Randell Timber Reserve (GIS Database). The condition of the vegetation in the Randell Timber Reserve has been previously degraded by stock and feral animals (Botanica, 2023; Outback Ecology, 2009a; 2013), and historical mineral production has occurred within the application area (GIS Database).

Advice from DBCA (2024a) indicates that the additional proposed clearing is not expected to negate the conservation value of Randell Timber Reserve, given there are already mine voids and disturbance present and the expansion relates to historically disturbed areas.

A number of introduced flora species were identified within and surrounding the application area (Botanica, 2017; Outback Ecology, 2009a; 2013). Weeds have the potential to significantly change the dynamics of a natural ecosystem and lower the biodiversity of an area.

# Conclusion

The proposed impact to 'Mount Belches *Acacia quadrimarginea | Ptilotus obovatus* banded ironstone community' priority ecological community is unlikely to be significant given the total direct impact across multiple clearing permits will be 14 hectares and represents a small portion of the extent of the PEC.

The increase of 70 hectares of clearing is not likely to have a significant additional impact on the environmental values of Randell Timber Reserve, given the section of the application area within the reserve has been previously degraded by mining and grazing, and the proposed clearing is to occur predominantly adjacent to existing roads and infrastructure.

Secondary impacts to both the PEC and Randell Timber Reserve have the potential to result in further modification and should be mitigated (DBCA, 2024b). Cumulative impacts should also be taken into account should Silver Lake wish to expand their existing operations in the future. Continued expansion of mining operations within the reserve will result in decreasing conservation value, as much of the value of the reserve is linked to the representation of the PEC. Continued clearing and degradation of the PEC should be avoided and minimised where possible.

### Conditions

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

- avoid, minimise to reduce the impacts and extent of clearing;
- take hygiene steps to minimise the risk of the introduction and spread of weeds;

# 3.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 12 December 2023 by the Department of Energy, Mines, Industry Regulation and Safety inviting submissions from the public. One submission was received in relation to this application.

There is one native title claim (WC2020/005) over the area under application (DPLH, 2024). This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. However, 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, 2024). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

Other relevant authorisations required for the proposed land use include:

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

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

End

Appendix A. Details of public submissions	
Summary of comments	Consideration of comment
The City of Kalgoorlie-Boulder provided comment that they raised no objections to the proposed amendment.	Noted.

# Appendix B. Site characteristics

# B.1. Site characteristics

Characteristic	Details			
Local context	land use zone of Wes mining operations, ar	be cleared is part of an expansive tract of native vegetation in the extensive stern Australia (GIS Database). It is surrounded by large areas of uncleared land, and salt lake systems, which are common throughout the Eastern Goldfields pase). It forms a small part of the Great Western Woodlands (GIS Database).		
	Approximately 99% o remains uncleared (G	f the local area (50 kilometre radius from the area proposed to be cleared) GIS Database).		
Ecological linkage		is not considered a significant ecological linkage. The vegetation immediately cation area and the majority of the region remains uncleared (GIS Database).		
Conservation areas	The application area is partially located within the Randell Timber Reserve (approximately 834 hectares) (GIS Database). The Randell Timber Reserve spans approximately 16,310 hectares (GIS Database). The nearest legislated nature reserve is the Cardunia Rocks Nature Reserve located approximately 34.2 kilometres northeast of the application area (GIS Database).			
Vegetation description	The vegetation of the application area is broadly mapped as the following Beard vegetation associations:  468: Medium woodland; salmon gum & goldfields blackbutt;  501: Medium woodland; goldfields blackbutt; and  506: Succulent steppe with woodland; salmon gum & bluebush (GIS Database).  Numerous flora and vegetation surveys have been conducted over various parts of the application area by Botanica Consulting (Botanica) and Outback Ecology during October 2008, March and October 2012, September 2015, October 2017, January 2021, and August 2023. The following vegetation types were recorded within the application area (Botanica, 2017; 2019b; 2020; 2023;			
	Outback Ecology, 200	DESCRIPTION		
	AaMp	Low woodland of <i>Acacia aneura</i> over low chenopod shrubland of <i>Maireana pyramidata</i> in drainage depression		
	Ab	Tall open shrubland of <i>Acacia burkittii</i> over mixed low open shrubland over scattered herbs on sand-loam plain		
	AnTSL	Low open woodland of <i>Acacia caesaneura / Acacia</i> incurvaneura over mid shrubland of <i>Eremophila alternifolia</i> and low chenopod shrubland of <i>Maireana triptera/ Maireana sedifolia</i> and <i>Ptilotus obovatus</i> on clay-loam plain		
	AqDIMs	Low open forest of Acacia quadrimarginea over low shrubland of Dodonaea lobulata, Maireana sedifolia on sand-loam plain		
	AqEaTSL	Low open woodland of Acacia quadrimarginea over mid shrubland of Eremophila alternifolia and low chenopod shrubland of Maireana trichopteral Maireana sedifolia and Ptilotus obovatus on banded ironstone ridge		
	AqMtp	Low woodland of <i>Acacia quadrimarginea</i> over low open chenopod shrubland of <i>Maireana triptera</i> , <i>Maireana pyramidata</i> on clay-loam plain		
	AqPoM	Low open woodland of <i>Acacia quadrimarginea</i> over low open shrubland of <i>Ptilotus obovatus</i> , <i>Maireana triptera</i> on hillslope		
	AtPa Scattered tall shrubs of Acacia tetragonophylla, Pittosporum angustifolium o chenopod shrubland of Maireana sedifolia on clay-loam plain			
	CLP-EW1	Low woodland of Eucalyptus lesouefii / Eucalyptus salmonophloia over open low scrub of Eremophila interstans subsp. virgata / Eremophila oldfieldii subsp. angustifolia and dwarf scrub of Maireana sedifolia / Tecticornia disarticulata on clay-loam plain		
	CLP-EW2	Low woodland of <i>Eucalyptus lesouefii</i> over scrub of <i>Eremophila interstans</i> subsp. virgata and dwarf scrub of <i>Atriplex nummularia</i> subsp. spathulata / Maireana sedifolia on clay-loam plain		
	CLP-OOW1	Open low woodland of <i>Myoporum platycarpum</i> over low scrub of <i>Atriplex nummularia</i> subsp. <i>spathulata / Eremophila scoparia / Maireana sedifolia / Senna artemisioides</i> subsp. <i>filifolia</i> and very open low grass of <i>Austrostipa nitida / Enneapogon caerulescens</i> on clay-loam plain		

Characteristic	Details	
	CoOW	Low open woodland of Casuarina obesa over mid open shrubland of Eremophila alternifolia and low chenopod shrubland of Maireana sedifolia / Atriplex nummularia on clay-loam plain
	DD-EW1	Low woodland of <i>Eucalyptus salmonophloia</i> over open low scrub and dwarf scrub on drainage depression
	EaLOW	Tall open shrubland of <i>Eremophila alternifolia</i> over low chenopod shrubland of <i>Maireana sedifolia</i> and low open tussock grassland of <i>Austrostipa</i> species on clay-loam plain
	Ecgf	Low woodland of <i>Eucalyptus celastroides</i> subsp. <i>celastroides / Eucalyptus griffithsii</i> over low chenopod shrubland of <i>Maireana sedifolia</i> in drainage depression
	Eg(Ec)TM	Tree mallee of <i>Eucalyptus griffithsii</i> over low open chenopod shrubland <i>of Maireana</i> sedifolia and low open tussock grassland of <i>Austrostipa</i> species on hillslope
	EgIM	Low woodland of Eucalyptus griffithsii / Eucalyptus lesouefii over scattered shrubs of Myoporum platycarpum and low open chenopod shrubland of Maireana sedifolia on sand-loam plain
	EgTM	Tree mallee of Eucalyptus griffithsii over low chenopod shrubland of Maireana pyramidata in open depression
	EmlMs	Low open forest of <i>Eucalyptus melanoxylon / Eucalyptus lesouefii</i> over low chenopod shrubland of <i>Maireana sedifolia</i> on clay-loam plain
	EsEcW	Mid open woodland <i>Eucalyptus salmonophloia</i> over open tree mallee of <i>Eucalyptus celastroides</i> and low chenopod shrubland of <i>Tecticornia disarticulata / Maireana sedifolia / Maireana pyramidata</i> on clay-loam plain
	EsEmW	Mid woodland of Eucalyptus salmonophloia / Eucalyptus moderata over low chenopod shrubland of Maireana sedifolia / Maireana triptera / Atriplex nummularia and open low tussock grassland of Austrostipa species on clay-loam plain
	EslMs	Low open forest of <i>Eucalyptus salmonophloia / Eucalyptus lesouefii</i> over low chenopod / samphire shrubland of <i>Maireana sedifolia</i> , <i>Tecticornia</i> species on clay-loam plain
	HS- CFW/MWS1	Open low woodland of Casuarina pauper / very open tree mallee of Eucalyptus griffithsii over low scrub of Acacia tetragonophylla / Acacia quadrimarginea / Eremophila alternifolia and dwarf scrub of Ptilotus obovatus / open low grass of Austrostipa nitida / Enneapogon caerulescens on hillslope
	HS- CFW/MWS2	Low woodland of Casuarina pauper / open tree mallee of Eucalyptus griffithsii over low scrub of Atriplex nummularia subsp. spathulata / Dodonaea lobulata and dwarf scrub of Ptilotus obovatus on hillslope
	HS- EW/MWS1	Low woodland of Eucalyptus salmonophloia / open tree mallee of Eucalyptus griffithsii over open low scrub of Acacia quadrimarginea and dwarf scrub of Maireana pyramidata / Maireana sedifolia on hillslope
	HS-AFW1	Low woodland of Acacia burkittii over scrub of Eremophila alternifolia and open low scrub of Dodonaea lobulate / Maireana triptera / Maireana sedifolia on hillslope
	HS-AFW3	Thicket of Acacia incurvaneura over low scrub of Dodonaea lobulate / Scaevola spinescens and open dwarf scrub of Ptilotus obovatus on hillslope
	HS-EW1	Low woodland of <i>Eucalyptus lesouefii</i> over scrub of <i>Eremophila interstans</i> subsp. virgata and dwarf scrub of <i>Atriplex nummularia</i> subsp. <i>spathulata</i> on hillslope
	HS-MWS1	Open tree mallee of Eucalyptus griffithsii over low scrub of Eremophila oldfieldii subsp. angustifolia and dwarf scrub of Atriplex nummularia subsp. spathulate / Maireana sedifolia on hillslope
	MptAC	Low chenopod shrubland of <i>Maireana pyramidata</i> , <i>Maireana trichoptera</i> , <i>Atriplex vesicaria</i> , <i>Carpobrotus</i> species on clay-loam plain
	OD-EW1	Low woodland of <i>Eucalyptus salmonophloia</i> over very open shrub mallee of <i>Eucalyptus celastroides</i> and dense low heath of <i>Maireana pyramidata</i> in open depression
Vegetation condition		of the application area recorded the vegetation to be in very good, good, poor, pletely degraded condition (Botanica, 2017; 2019b; 2020; 2023; Outback Ecology, en, 1991).
	The full Trudgen (19	991) condition rating scale is provided in Appendix D.
Climate and landform		Eastern Goldfields subregion is described as arid to semi-arid, with the nearest ording an average rainfall of approximately 263.9 millimetres per year (BoM, 2024;
	Database). Northco valley plains, pedim	a is mapped at elevations of 300-350 metres Australian height datum (GIS te et al. (1960-68) landform descriptions of the application are gently undulating lents, and plateau areas, with some outcrop of basic rock abrupt erosional scarps, nd hills (DPIRD, 2024).
Soil description	The soils within the Database):	application area are mapped as (DPIRD, 2024; Northcote et al., 1960-68; GIS

Characteristic	Details				
	ATLAS SYSTEM	DESCRIPTION			
	Mx43 (803.5 ha)	red loamy earth, red-brown hardpan shallow loam, calcareous loamy earth, self-mulching cracking clay, red sandy earth, brown sandy earth			
	AC1 (70.4 ha)	yellow sandy earth, yellow deep sand, yellow loamy earth, shallow gravel, deep sandy gravel			
	BB5 (14.1 ha)	calcareous shallow loam, calcareous loamy earth, red loamy earth, self-mulching cracking clay			
Land degradation risk		be prone land degradation in the form of water erosion, given the number of PIRD, 2019; GIS Database).			
Waterbodies		ial watercourses intersect the application area (GIS Database). These th of the application area and flow south into an unnamed salt lake system tion area (GIS Database).			
Hydrogeography	The application area is not within any legislated surface water area (GIS Database). The nearest Public Drinking Water Source Area is the Broad Arrow Dam Catchment Area, located approximately 98.4 kilometres northwest of the application area (GIS Database).				
	The application area is located within the Goldfields Groundwater Area proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (GIS Database). The mapped groundwater salinity is 14,000-35,000 total dissolved solids milligrams per litre, which is described saline water quality (GIS Database).				
Flora	There are records of 27 priority flora within 50 kilometres of the application area (GIS Database).				
Ecological communities	The application area is mapped within the 'Mount Belches <i>Acacia quadrimarginea   Ptilotus obovatus</i> banded ironstone community' priority ecological community (P3) (GIS Database). This PEC is primarily restricted to the Randall Timber Reserve (GIS Database).				
Fauna	There are records of 12 co application area (GIS Data	onservation significant fauna species within a 50 kilometre radius of the abase).			
Fauna habitat	There were three broad fa Terrestrial Ecosystems, 20	una habitats recorded within the application area (Botanica, 2017; 2021; 012):			
	Clay-Loam Plains Eucalyptus woodlands / m	nallee woodlands and shrublands / other open woodlands.			
	Hillslope  Acacia forests and woodla  Casuarina forests and woo	ands / <i>Eucalyptus</i> woodlands / mallee woodlands and shrublands / odlands.			
	Open Depression Chenopod shrublands, sal woodlands / other shrubla	mphire shrublands and forblands / Eucalyptus woodlands / other open nds.			

# B.2. Vegetation extent

	Pre-European area (ha)	Current extent (ha)	Extent Remaining %	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre- European extent in all DBCA Managed Lands
IBRA Bioregion - Coolgardie	12,912,204.35	12,648,491.39	~97	2,114,349.37	16.37
Beard vegetation asso - State	ciations				
468	592,022.32	583,902.76	~98	135,197.44	22.84
501	48,022.40	47,889.33	~99	6,766.43	14.09
506	98,187.43	98,050.28	~99	12,572.20	12.80
Beard vegetation associations					

- Coolgardie bioregion					
468	583,357.71	575,360.61	~98	130,719.16	22.41
501	43,938.63	43,805.56	~99	6,766.43	15.40
506	98,187.43	98,050.28	~99	12,572.20	12.80

Government of Western Australia (2019)

# B.3. Flora analysis table

The following conservation significant flora species have records within a 50 kilometre radius of the application area (GIS Database). Habitat suitability and likelihood of occurrence was determined utilising biological survey information (Botanica, 2017; 2019a; 2019b; 2020; 2021; Outback Ecology, 2009a; 2013; WAH, 1998-; GIS Database).

Species	Conservatio n status	Distance of closest record to application area (km)	Likelihood of occurrence	Habitat suitability	Surveys adequate to identify? [Y, N, N/A]
Allocasuarina eriochlamys subsp. grossa	3	36.6	unlikely	no suitable habitat	Υ
Austrostipa turbinata	3	43.8	possible	suitable habitat present	Υ
Calandrinia lefroyensis	1	24.4	unlikely	no suitable habitat	Υ
Chrysocephalum apiculatum subsp. norsemanense	3	48.1	unlikely	limited suitable habitat	Y
Cryptandra crispula	3	49.2	unlikely	no suitable habitat	Υ
Cyathostemon divaricatus	1	38.4	unlikely	limited habitat present	Υ
Eremophila acutifolia	3	42.6	possible	suitable habitat present	Υ
Eremophila arachnoides subsp. tenera	3	7.2	possible	suitable habitat present	Υ
Eremophila praecox	2	48.2	possible	suitable habitat present	Y
Eremophila xantholaemus	1	46.2	unlikely	limited suitable habitat	Υ
Eucalyptus kruseana	4	0.7	possible	suitable habitat present	Υ
Eucalyptus websteriana subsp. norsemanica	1	3.9	possible	suitable habitat present	Υ
Eucalyptus x brachyphylla	4	12.2	possible	limited suitable habitat	Υ
Grevillea phillipsiana	1	30.5	possible	limited suitable habitat	Υ
Lepidosperma lyonsii	1	37	unlikely	limited habitat present	Υ
Melaleuca coccinea	3	38.1	unlikely	limited habitat present	Υ
Micromyrtus serrulata	3	34.1	unlikely	limited habitat present	Υ
Phlegmatospermum eremaeum	3	46	possible	limited habitat present	Υ
Prostanthera splendens	1	47.6	possible	suitable habitat present	Y
Pterostylis xerampelina	1	34.8	unlikely	limited habitat present	Υ
Ptilotus rigidus	1	37	possible	suitable habitat present	Y
Ricinocarpos digynus	1	41.2	possible	suitable habitat present	Υ
Sowerbaea multicaulis	4	40.4	possible	suitable habitat present	Y
Stackhousia muricata subsp. Perennial	3	33.4	unlikely	no suitable habitat	Y
Styphelia rectiloba	3	49.1	unlikely	limited habitat present	Y
Tecticornia flabelliformis	2	18.4	possible	suitable habitat present	Y
Xanthoparmelia xanthomelanoides	2	39	possible	suitable habitat present	Υ

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

# B.4. Fauna analysis table

The following conservation significant fauna species have records within a 50 kilometre radius of the application area (GIS Database). Habitat suitability, likelihood of occurrence, and impact was determined utilising biological survey information (Botanica, 2017; 2019a; 2021; Outback Ecology, 2009b; Terrestrial Ecosystems, 2012; GIS Database).

Species name		Conservation Distance of closest record to application occurrence			Habitat suitability	Surveys adequate to identify?
	WA	EPBC	area (km)			[Y, N, N/A]
BIRD						
Actitis hypoleucos common sandpiper	MI	MI	3.3	possible	limited habitat, vagrant visitors to surrounding regional salt lakes	Υ
Amytornis textilis textilis western grasswren	P4		37	unlikely	one record from 1908, however suitable habitat may be present	Υ
Apus pacificus fork-tailed swift	MI	MI	45.3	possible	limited habitat, vagrant visitors to surrounding regional salt lakes	Υ
Calidris acuminata sharp-tailed sandpiper	MI	MI	43.1	possible	limited habitat, vagrant visitors to surrounding regional salt lakes	Υ
Calidris ruficollis red-necked stint	MI	MI	19.9	possible	limited habitat, vagrant visitors to surrounding regional salt lakes	Υ
Falco peregrinus peregrine falcon	os		34.8	possible	limited habitat, vagrant visitors to surrounding regional salt lakes	Y
Leipoa ocellata malleefowl	VU	VU	29.3	possible	some suitable habitat, not ideal for breeding	Υ
Platycercus icterotis xanthogenys western rosella (inland)	P4		3.5	possible	suitable habitat present	Y
Thinornis cucullatus hooded plover, hooded dotterel	P4		45.1	possible	limited habitat, vagrant visitors to surrounding regional salt lakes	Y
<i>Tringa nebularia</i> common greenshank	MI	MI	35.1	possible	limited habitat, vagrant visitors to surrounding regional salt lakes	Υ
MAMMAL						
Dasyurus geoffroii chuditch, western quoll	VU	VU	38.3	unlikely	no suitable habitat, outside its current known range	Y
REPTILE						
Egernia stokesii badia western spiny-tailed skink	VU	EN	46.6	unlikely	no suitable habitat	Y

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority, MI: migratory species, OS: other specially protected species

# Appendix C. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): "Native vegetation should not be cleared if it comprises a high level of biodiversity."	May be at variance	Yes Refer to Section
Assessment: The area proposed to be cleared does not contain locally or regionally significant flora, fauna, or habitats based on numerous biological surveys undertaken within the application area (Botanica, 2017; 2019a; 2019b; 2020; 2021; 2023; Outback Ecology, 2009a; 2009b; 2013; Terrestrial Ecosystems, 2012).	as per CPS 8329/1	3.2.1, above.
A portion of the application area is mapped as the 'Mount Belches <i>Acacia</i> quadrimarginea / <i>Ptilotus obovatus</i> banded ironstone community' priority ecological community (P3).		
Principle (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."	Not likely to be at variance	No
Assessment: The area proposed to be cleared does not contain significant habitat necessary for the maintenance of conservation significant fauna. The habitats found within the application area are common and widespread throughout the Coolgardie	as per CPS 8329/1	

Assessment against the clearing principles	Variance level	Is further consideration required?
bioregion (Botanica, 2017; 2021; Terrestrial Ecosystems, 2012). The loss of an additional 70 hectares of fauna habitat is unlikely to significant impact conservation significant fauna species.		
Principle (c): "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."	Not likely to be at variance	No
Assessment: There are no known records of threatened flora within the application area or within a 50 kilometre radius (GIS Database).	as per CPS 8329/1	
None of the flora and vegetation surveys undertaken identified any threatened flora species (Botanica, 2017; 2019b; 2020; 2021; Outback Ecology, 2009a; 2013). Many of the vegetation types recorded within the application area are common and widespread within the region, and is unlikely to provide suitable habitat for threatened flora species (Botanica, 2017; 2019b; 2020; 2021; Outback Ecology, 2009a; 2013).		
Principle (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."	Not likely to be at variance	No
Assessment: There are no known state or federally listed threatened ecological communities (TECs) located within or in close proximity to the application area (GIS Database). The nearest known threatened ecological community is the federally listed 'Proteaceae dominated kwongkan shrublands of the southeast coastal floristic province of Western Australia' (EN), located approximately 214 kilometres south of the application area (GIS Database).	as per CPS 8329/1	
Flora and vegetation surveys of the application area and surrounds did not record vegetation that could be representative of a TEC (Botanica, 2017; 2019b; 2020; 2021; Outback Ecology, 2009a; 2013).		
Environmental value: significant remnant vegetation and conservation areas		
Principle (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."	Not at variance	No
Assessment: The application area falls within the Coolgardie bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 97% of the pre-European vegetation still exists in the IBRA Coolgardie Bioregion (Government of Western Australia, 2018). The application area is broadly mapped as Beard vegetation associations 468: Medium woodland; salmon gum and goldfields blackbutt; 501: Medium woodland; goldfields blackbutt; and 506: Succulent steppe with woodland; salmon gum and bluebush (GIS Database). Approximately 98-99% of the pre-European extent of each of these vegetation associations remains uncleared at both the state and bioregional level (Government of Western Australia, 2018).	as per CPS 8329/1	
The application area does not represent a significant remnant of native vegetation in an area that has been extensively cleared.		
Principle (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."	Not likely to be at variance as per CPS	Yes Refer to Section 3.2.1, above.
Assessment: Approximately 97% of the application area is located within Randell Timber reserve (GIS Database).	8329/1	
Environmental value: land and water resources		
Principle (f): "Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."  Assessment: Flora and vegetation surveys of the application area recorded a number of vegetation types that grow in association with the non-perennial watercourses that intersect the application area (Botanica, 2020; 2023; Outback Ecology, 2009a).	At variance as per CPS 8329/1	No
<b>AaMp</b> : Low woodland of <i>Acacia aneura</i> over low chenopod shrubland of <i>Maireana pyramidata</i> in drainage depression.		
<b>Ecgf</b> : Low woodland of <i>Eucalyptus celastroides</i> subsp. <i>celastroides / Eucalyptus griffithsii</i> over low chenopod shrubland of <i>Maireana sedifolia</i> in drainage depression.		

Assessment against the clearing principles	Variance level	Is further consideration required?
<b>DD-EW1</b> : Low woodland of <i>Eucalyptus salmonophloia</i> over open low scrub and dwarf scrub on drainage depression.		
Potential impacts to vegetation growing in association with these drainage lines may be minimised by the continued implementation of a watercourse management condition.		
Principle (g): "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."	May be at variance	No
Assessment: The application area lies within the Woolibar and Lawrence land systems (DPIRD, 2019).	as per CPS 8329/1	
The Woolibar land system is prone to erode where not protected by stony mantles and protective vegetation is cleared when corresponding with the occurrence of weathered felsic volcanoclastic rocks, saline plains and lower alluvial tracts (DPIRD, 2019).		
The Lawrence land system is a minor component of the application area, however narrow drainage tracts of this land system are highly susceptible to water erosion, particularly in areas where the perennial shrub cover has been substantially reduced and/or the soil surface disturbed (DPIRD, 2019).		
Potential land degradation as a result of the proposed clearing may be minimised by the continued implementation of a staged clearing condition and a watercourse management condition.		
<u>Principle (i):</u> "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."	Not likely to be at variance	No
Assessment: Given no permanent watercourses or Public Drinking Water Sources Areas are recorded within the application area or within close proximity, the proposed clearing is unlikely to impact surface or ground water quality (GIS Database).	as per CPS 8329/1	
Principle (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."	Not likely to be at variance	No
Assessment: The mapped topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding (GIS Database). The landform of the local area is gently undulating, and water is likely to follow the natural gradient south of the application area and flow into the unnamed salt lake system (GIS Database).	as per CPS 8329/1	
Non-perennial watercourses in the area are dry for most of the year, only flowing briefly immediately following significant rainfall. Temporary localised flooding may occur briefly following these rainfall events; however, the proposed clearing is unlikely to increase the incidence or intensity of natural flooding events.		

# Appendix D. 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.

Condition	Description
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 E. Sources of information

## E.1. GIS databases

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

- Contours (DPIRD-073)
- Clearing Regulations Schedule One Areas (DWER-057)
- DBCA Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Groundwater Salinity Statewide (DWER-026)
- Hydrographic Catchments Catchments (DWER-028)
- Hydrography Inland Waters Waterlines
- Hydrography, Linear (DWER-031)
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Pre-European Vegetation Statistics
- Interim Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- 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

Botanica (2017) Reconnaissance Flora and Fauna Assessment: Mount Monger Road. Prepared by Botanica Consulting, for Silver Lake Resources Limited, November 2017.

Botanica (2019a) Desktop Flora and Fauna Assessment: Mt Belches Over Head Powerline Route. Prepared by Botanica Consulting, for Silver Lake Resources Limited, February 2019.

Botanica (2019b) Detailed Flora/Vegetation Survey Santa Project. Prepared by Botanica Consulting, for Silver Lake Resources Limited, September 2019.

Botanica (2020) Reconnaissance Flora / Vegetation Survey Maxwells / Cock-Eyed Bob Project. Prepared by Botanica Consulting, for Silver Lake Resources Limited, March 2020.

Botanica (2021) Reconnaissance Flora / Vegetation & Basic Fauna Survey Mt Belches Accommodation Camp. Prepared by Botanica Consulting, for Silver Lake Resources Limited, January 2021.

Botanica (2023) Mount Monger Operation Targeted Priority Ecological Community Survey. Prepared by Botanica Consulting, for Silver Lake Resources Limited, September 2023.

- Bureau of Meteorology (BoM) (2024) Bureau of Meteorology Website Climate Data Online, Kalgoorlie-Boulder Airport. Bureau of Meteorology. <a href="https://req.bom.gov.au/climate/data/">https://req.bom.gov.au/climate/data/</a> (Accessed 6 February 2024).
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- Department of Biodiversity, Conservation and Attractions (DBCA) (2023) Priority Ecological Communities for Western Australia Version 35. Species and Communities Program, Department of Biodiversity, Conservation and Attractions, June 2023
- Department of Biodiversity, Conservation and Attractions (DBCA) (2024a) Additional advice received in relation to Clearing Permit Application CPS 8329/2. Species and Communities Branch, Department of Biodiversity, Conservation and Attractions, Western Australia, March 2024.
- Department of Biodiversity, Conservation and Attractions (DBCA) (2024b) Advice received in relation to Clearing Permit Application CPS 8329/2. Species and Communities Branch, Department of Biodiversity, Conservation and Attractions, Western Australia, January 2024.
- Department of Environment Regulation (DER) (2014) *A guide to the assessment of applications to clear native vegetation*.

  Perth. <a href="https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2">https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2</a> assessment native veg.pdf
- Department of Planning, Lands and Heritage (DPLH) (2024) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. <a href="https://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS">https://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS</a> (Accessed 25 March 2024).
- Department of Primary Industries and Regional Development (DPIRD) (2019) Advice received in relation to Clearing Permit Application CPS 8329/1. Office of the Commissioner of Soil and Land Conservation, Department of Primary Industries and Regional Development, Western Australia, March 2019.
- Department of Primary Industries and Regional Development (DPIRD) (2024) NRInfo Digital Mapping. Department of Primary Industries and Regional Development. Government of Western Australia.

  <a href="https://dpird.maps.arcgis.com/apps/webappviewer/index.html?id=662e8cbf2def492381fc915aaf3c6a0f">https://dpird.maps.arcgis.com/apps/webappviewer/index.html?id=662e8cbf2def492381fc915aaf3c6a0f</a> (Accessed 6 February 2024).
- Department of Water and Environmental Regulation (DWER) (2021) Procedure: Native vegetation clearing permits. Joondalup. https://dwer.wa.gov.au/sites/default/files/Procedure Native vegetation clearing permits v1.pdf
- Environmental Protection Authority (EPA) (2004) Guidance for the Assessment of Environmental Factors Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia, No. 56, June 2004.
- Environmental Protection Authority (EPA) (2016a) Technical Guidance Flora and Vegetation Surveys for Environmental Impact Assessment.

  <a href="http://www.epa.wa.gov.au/sites/default/files/Policies">http://www.epa.wa.gov.au/sites/default/files/Policies</a> and Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey Dec13.pdf</a>
- Environmental Protection Authority (EPA) (2016b) Technical Guidance Terrestrial Fauna Surveys. <a href="https://www.epa.wa.gov.au/sites/default/files/Policies">https://www.epa.wa.gov.au/sites/default/files/Policies</a> and Guidance/Tech%20guidance-%20Terrestrial%20Fauna%20Surveys-Dec-2016.pdf
- 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. <a href="https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics">https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics</a>
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  Atlas of Australian Soils, Sheets 1 to 10, with explanatory data. CSIRO and Melbourne University Press: Melbourne.
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- Outback Ecology (2009b) Randalls Gold Project Terrestrial Vertebrate Fauna Assessment. Prepared by Outback Ecology Services, for Integra Mining Limited, May 2009.
- Outback Ecology (2013) Randall's Gold Project Santa Deposit Level 2 Flora and Vegetation Survey. Prepared by Outback Ecology Services, for Integra Mining Limited, January 2013.
- Silver Lake (2021) Environmental Management Plan Santa Open Pit. Prepared by Silver Lake Resources Limited, January 2021.
- Silver Lake (2023) Supporting documentation for amendment clearing permit application CPS 8329/2, 13 November 2023.
- Terrestrial Ecosystems (2012) Fauna Assessment for the Santa Area. Prepared by Terrestrial Ecosystems, for Integra Mining Limited, May 2012.
- 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.
- Western Australian Herbarium (1998-) FloraBase the Western Australian Flora. Department of Biodiversity, Conservation and Attractions, Western Australia. <a href="https://florabase.dpaw.wa.gov.au/">https://florabase.dpaw.wa.gov.au/</a> (Accessed 12 February 2024).

### 4. Glossary

#### **Acronyms:**

BC Act Biodiversity Conservation Act 2016, Western Australia

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

**DEMIRS** Department of Energy, Mines, Industry Regulation and Safety

**DER** Department of Environment Regulation, Western Australia (now DWER)

**DMIRS** Department of Mines, Industry Regulation and Safety, Western Australia (now DEMIRS)

**DMP** Department of Mines and Petroleum, Western Australia (now DEMIRS)

DoEE Department of the Environment and Energy (now DCCEEW)
DoW Department of Water, Western Australia (now DWER)

**DPaW** Department of Parks and Wildlife, Western Australia (now DBCA)

**DPIRD** Department of Primary Industries and Regional Development, Western Australia

**DPLH** Department of Planning, Lands and Heritage, Western Australia

**DRF** Declared Rare Flora (now known as Threatened Flora)

**DWER** Department of Water and Environmental Regulation, Western Australia

**EP Act** Environmental Protection Act 1986, Western Australia **EPA** Environmental Protection Authority, Western Australia

EPBC Act Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)

GIS Geographical Information System
ha Hectare (10,000 square metres)

IBRA Interim Biogeographic Regionalisation for Australia

IUCN International Union for the Conservation of Nature and Natural Resources – commonly known as the

World Conservation Union

PEC Priority Ecological Community, Western Australia

RIWI Act Rights in Water and Irrigation Act 1914, Western Australia

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.