Government of Western Australia
Department of Mines, Industry Regulation and Safety

Clearing Permit Decision Report

1. Application details and outcomes

1.1. Permit application details

Permit number:	8316/2
Permit type:	Purpose Permit
Applicant name:	Norton Gold Fields Pty Ltd
Application received:	9 September 2022
Application area:	400 hectares
Purpose of clearing:	Mineral Production and Associated Activities
Method of clearing:	Mechanical Removal
Tenure:	Mining Leases 24/564, 24/565, 24/616
	Miscellaneous Licences 24/228, 24/229, 24/230
Location (LGA area/s):	City of Kalgoorlie-Boulder
Colloquial name:	Golden Cities

1.2. Description of clearing activities

Norton Gold Fields Pty Ltd proposes to clear up to 400 hectares of native vegetation within a boundary of approximately 1,196 hectares, for the purpose of mineral production and associated activities. The project is located approximately 31 kilometres north of Kalgoorlie-Boulder, within the City of Kalgoorlie-Boulder.

The application will allow for the expansion of the current operations (Norton, 2022).

Approximately 615.6 hectares of the Golden Cities operation overlaps with with CPS 8872/2, the Mulgarrie project, which is also operated by Norton Gold Fields (GIS Database).

Clearing permit CPS 8316/1 was granted by the Department of Mines, Industry Regulation and Safety on 7 February 2019 and was valid from 2 March 2019 to 1 March 2024. The permit authorised the clearing of up to 300 hectares of native vegetation within a boundary of approximately 1,195.7 hectares, for the purpose of mineral production and associated activities.

On 9 September 2022, the Permit Holder applied to amend CPS 8316/1 to increase the amount of clearing authorised from 300 hectares to 400 hectares, and extend the duration by five years, to 1 March 2029. The permit boundary remains unchanged.

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	17 August 2023
Decision area:	400 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 Mines, Industry Regulation and Safety (DMIRS) on 9 September 2022. 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 D), supporting information provided by the applicant including the results of a flora and vegetation survey, the clearing principles set out in Schedule 5 of the EP Act (Appendix B), and 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;
- the loss of native vegetation that is suitable habitat for malleefowl (*Leipoa ocellata*);
- potential land degradation; and
- impacts to riparian vegetation.

After consideration of the available information, 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 currently imposed on clearing permit CPS 8316/1 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;
- 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; and
- fauna management (malleefowl) condition requiring areas proposed to be cleared between 1 September and 31 January are inspected to identify active (in use) malleefowl mounds, and to maintain a 50 metre buffer around identified active mounds.

The following standard condition was not imposed on clearing permit CPS 8316/1, 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 8316/1, except in the case of principle (f). A review of the environmental information has determined that clearing will have an impact on vegetation growing in association with drainage lines. The Delegated Officer determined that the proposed increase the amount of clearing authorised from 300 hectares to 400 hectares, and extend the duration by five years, to 1 March 2029 is not likely to lead to an unacceptable risk to environmental values. Future amendments of this permit will be subject to additional biological surveys, particularly flora and vegetation survey, due to the age of the information (Botanica, 2020b).

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

Relevant agreements (treatys) 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 2019)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)
- Technical guidance – *Terrestrial Fauna 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

No evidence of avoidance or mitigation measures was provided to support this application, however supporting documentation previously provided states that Norton (2022) has environmental management processes in place for (Talis, 2020):

- surface water
- threatened and priority flora
- weeds
- threatened and priority fauna
- heritage
- topsoil
- domestic and industrial waste
- hydrocarbons
- dust

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 8316/1.

3.2.1. Biological values (fauna) - Clearing Principle (b)

Assessment

Numerous fauna assessments have been conducted within the application area and surrounds in February 2008, November 2017, December 2019, January 2020, and September 2021 (Botanica, 2020b; 2021; Keith Lindbeck, 2008; Terrestrial Ecosystems, 2018). In addition, there has been frequent malleefowl (*Leipoa ocellata*, VU) monitoring across the area in January 2016, September 2019, January 2020, January 2022, January 2023, and a LiDAR mound assessment in February 2023 (Anditi, 2023; Botanica, 2016; 2019; 2020a; 2022; 2023).

Fauna habitats that were delineated during different field assessments are as follows (Terrestrial Ecosystems, 2018; Botanica, 2020b; 2021):

- Open shrubland with an understory of spinifex or tussock grasses
- Open *Eucalyptus* woodland over shrubs and chenopods of varying densities
- Dense shrubland
- Mallee and shrubs of varying density
- *Acacia* woodlands/ *Casuarina* forests on clay-loam plain
- *Acacia* woodlands in drainage depressions
- *Eucalyptus* woodlands on rocky hillslope
- *Acacia* low woodland on clay-loam plain
- *Casuarina* open woodland on clay-loam plain
- *Eucalyptus* woodland on clay-loam plain
- *Eucalyptus* open mallee woodland on clay-loam plain

The desktop and fauna assessments identified a number of conservation significant bird species that may utilise the habitats available within the application area; however, they are unlikely to be reliant upon these habitats given their ranges and mobility. In addition, the available fauna habitats are common and widespread within the region, allowing fauna to utilise habitat outside the application area.

The malleefowl mound monitoring survey in 2023 found that there are 24 malleefowl mounds within or around the Golden Cities and Mulgarrie projects, of which three were newly identified (Botanica, 2023). None of these mounds were determined to be active by Botanica (2023), and no further evidence of malleefowl was identified during the monitoring survey.

While none of the mounds were found to be active, the presence of numerous mounds in and around the Golden Cities and Mulgarrie projects indicates that there is suitable habitat within the application area, and that malleefowl have the potential to reutilise these mounds (Botanica, 2023).

The Arid Bronze Azure Butterfly (*Ogyris subterrestris petrina*, CR) was identified as potentially occurring in the area (DBCA, 2020). A targeted survey for the pale-coloured (inland) form of the large sugar ant *Camponotus terebrans* was conducted in June 2020 and confirmed that the host ant for the butterfly was absent within the application area (Harewood, 2020).

Conclusion

Based on the above assessment, the proposed clearing will result in the potential loss of malleefowl breeding habitat.

Conditions

To address the above impacts, the following management measure will continue to be implemented as a condition on the clearing permit:

- fauna management (malleefowl) condition requiring areas proposed to be cleared between 1 September and 31 January are inspected to identify active (in use) malleefowl mounds, and to maintain a 50 metre buffer around identified active mounds

3.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 14 July 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 one native title claim (WC2017/007) over the area under application (DPLH, 2023). 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 is one registered Aboriginal Sites of Significance within the application area (DPLH, 2023). It is the proponent's responsibility to comply with the *Aboriginal Cultural Heritage Act* 2021 and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

Other relevant authorisations that may be required for the proposed land use include:

- A Programme of Work approved under the *Mining Act 1978*.
- 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 (GIS Database). It is surrounded by large areas of uncleared land, mining operations, and salt lake systems, which are common throughout the Eastern Murchison subregion (GIS Database). Approximately 96.83% of the local area (20 kilometre radius from the centre of the area proposed to be cleared) remains uncleared (GIS Database).
Ecological linkage	The application area is not considered a significant ecological linkage. The vegetation immediately surrounding the application area and the majority of the region remains uncleared (GIS Database).
Conservation areas	The application area is not located within any conservation areas (GIS Database). The nearest legislated conservation area is Bullock Holes Timber Reserve, located approximately 26.66 kilometres east-southeast of the application area (GIS Database). The next nearest conservation area is the Goongarrie National Park, located approximately 31.21 kilometres north of the application area (GIS Database).
Vegetation description	The vegetation of the application area is broadly mapped as the following Beard vegetation associations: 10: Medium woodland; red mallee group; 2903: Medium woodland; Salmon gum, goldfield balckbutt, gimlet & *Allocasuarina cristata* (GIS Database). Multiple flora and vegetation surveys have been conducted over the application area and surrounds in February and March 2008, January 2012, October 2017, December 2019, January 2020, and September 2021 (Botanica, 2008; 2012; 2020b; 2021; NVS, 2018). The following vegetation types were recorded within the application area by Botanica (2008): - *Eucalyptus salmonophloia* woodland - *Eucalyptus gracilis and Eucalyptus celastroides* creek line vegetation - *Acacia aneura* woodland The following vegetation types were recorded within the application area by Botanica (2012): **1** Low woodland of *Acacia aneura* over scrub of *Acacia ramulosa* over low scrub of *Scaevola spinescens* and *Senna artemisioides* subsp. *filifolia* **5** Thicket of *Acacia effusifolia* and *Acacia* sp. narrow phyllode over hummock grass of *Triodia irritans* **6** Open mallee of *Eucalyptus oleosa* and low woodland of *Casuarina pauper* over scrub of *Acacia hemiteles* and *Eremophila dempsteri* over dwarf scrub of *Ptilotus obovatus* and *Maireana triptera* **7** Thicket of *Acacia* sp. narrow phyllode over hummock grass of *Triodia irritans* **9** Low woodland of *Eucalyptus clelandii* over low scrub of *Senna artemisioides* subsp. *filifolia* and *Acacia hemiteles* **10** Open mallee of *Eucalyptus oleosa* over low scrub of *Senna artemisioides* subsp. *filifolia* over hummock grass of *Triodia irritans* **11** Low woodland of *Eucalyptus salmonophloia* and *Casuarina pauper* over low scrub of *Maireana sedifolia* and *Maireana pyramidata* **12** Open mallee of *Eucalyptus loxophleba* subsp. *lysiphloia* over scrub of *Acacia* sp. narrow phyllode over low scrub of *Acacia hemiteles* The following vegetation types were recorded within the application area by NVS (2018): **a** *Eucalyptus griffithsii* and *Eucalyptus oleosa* over *Acacia acuminata* and *Acacia aneura* over *Triodia irritans* **b** Low woodland of *Eucalyptus oleosa* and *Casuarina pauper* over scrub of *Acacia hemiteles* and *Eremophila dempsteri* over dwarf scrub of *Ptilotus obovatus* and *Maireana triptera* **c** Open mallee of *Eucalyptus* over scrub of *Acacia acuminata* / *Acacia ramulosa* / *Acacia effusifolia* over hummock grass of *Triodia irritans* **d** Low woodland of *Eucalyptus clelandii* over low scrub of *Senna artemisioides* subsp. *filifolia* and *Acacia hemiteles* **e** *Eucalyptus oleosa* thicket

Characteristic	Details
	f *Eucalyptus salmonophloia* and *Eucalyptus oleosa* over *Acacia acuminata* over mixed shrubs (creekline vegetation) **g** Mulga woodland **h** Low woodland of *Casuarina pauper* over *Senna* shrubland **i** *Eucalyptus salmonophloia* over *Maireana sedifolia* and sclerophyll shrubland **j** Open mallee of *Eucalyptus oleosa* and *Eucalyptus griffithsii* over low scrub of *Senna artemisioides* subsp. *filifolia* over hummock grass of *Triodia irritans* **k** Thicket of *Acacia effusifolia* and *Acacia acuminata* over hummock grass of *Triodia irritans* The following vegetation types were recorded within the application area by Botanica (2020b): **CLP-AFW1** Low woodland of *Acacia caesaneura/ Casuarina pauper* with isolated mallee trees of *Eucalyptus oleosa* over mid open shrubland of *Acacia burkittii* and low open chenopod shrubland of *Maireana sedifolia* on clay-loam plain **CLP-AFW3** Low open forest of *Acacia caesaneura* over mid open shrubland of *Senna artemisioides* subsp. *filifolia* and open low chenopod shrubland of *Maireana sedifolia* on clay-loam plain **CLP-EOW1** Low open woodland of *Eucalyptus salmonophloia/ Eucalyptus transcontinentalis* and mid open mallee woodland of *Eucalyptus oleosa* over low open shrubland of *Acacia hemiteles* and low sparse hummock grassland of *Triodia scariosa* on clay-loam plain **CLP-EW1** Low woodland of *Eucalyptus salmonophloia* over mid open shrubland of *Acacia kalgoorliensis* and low open chenopod shrubland of *Atriplex vesicaria/ Maireana pyramidata/ Tecticornia disarticulata* on clay-loam plain **CLP-MWS1** Mid mallee woodland of *Eucalyptus concinna* over mid shrubland of *Acacia burkittii* and low open shrubland of *Ptilotus obovatus/ Senna artemisioides* subsp. *filifolia* on clay-loam plain The following vegetation types were recorded within the application area by Botanica (2021): **CLP-ALW1** *Acacia caesaneura*, *Acacia ramulosa* and *Grevillea berryana* low woodland over *Acacia oswaldii*, *Acacia hemiteles* and *Acacia effusifolia* tall shrubland over *Eremophila clarkei*, *Acacia tetragonophylla* and *Psydrax suaveolens* open shrubland over *Ptilotus obovatus* and *Triodia rigidissima* sparse tussock grassland **CLP-COW1** *Casuarina pauper*, *Eucalyptus transcontinentalis* and *Alectryon oleifolius* subsp. *canescens* low open woodland over *Acacia hemiteles*, *Acacia kempeana* and *Eremophila oldfieldii* subsp. *angustifolia* tall shrubland over *Atriplex nummularia*, *Scaevola spinescens* and *Acacia tetragonophylla* open shrubland over *Maireana triptera*, *Maireana sedifolia* and *Maireana trichoptera* low open chenopod shrubland **CLP-EW1** *Eucalyptus salmonophloia*, *Eucalyptus ravida* and *Eucalyptus griffithsii* open woodland over *Eremophila scoparia*, *Acacia hemiteles* and *Dodonaea lobulata* tall shrubland over *Atriplex nummularia*, *Scaevola spinescens* and *Exocarpos aphyllus* shrubland over *Maireana triptera*, *Maireana sedifolia* and *Maireana georgei* low open chenopod shrubland **CLP-OMW1** *Eucalyptus concinna*, *Casuarina pauper* and *Acacia caesaneura* low open mallee woodland over *Acacia acuminata*, *Acacia kempeana* and *Santalum spicatum* tall shrubland over *Eremophila clarkei*, *Acacia erinacea* and *Acacia ramulosa* open shrubland over *Maireana georgei*, *Maireana triptera* and *Maireana trichoptera* low open chenopod shrubland **CLP-OMW2** *Eucalyptus oleosa*, *Casuarina pauper* and *Pittosporum angustifolium* low sparse woodland over *Acacia hemiteles* and *Acacia* colletioides tall shrubland over *Eremophila clarkei*, *Eremophila* virgata and *Senna cardiosperma* open shrubland over *Ptilotus obovatus*, *Maireana georgei* and *Roepera eremaea* low open shrubland
Vegetation condition	The vegetation surveys (Botanica, 2008; 2012; 2020b; 2021; NVS, 2018) found the vegetation within the proposed clearing area in the following conditions (Trudgen,1991): **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.

<table>
<tr><th>Characteristic</th><th>Details</th></tr>
<tr><td></td><td>
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.
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.
The full Trudgen (1991) condition rating scale is provided in Appendix C.
</td></tr>
<tr><td>Climate and landform</td><td>The application area is mapped at an elevation of 350-450 metres AHD (GIS Database). The climate of the Eastern Murchison subregion is described as arid, with the nearest weather station recording an average rainfall of approximately 265 millimetres per year (BoM, 2023; CALM, 2002).</td></tr>
<tr><td>Soil description</td><td>The soils and landforms within the application area are mapped as (DPIRD, 2023; Pringle et al., 1994; GIS Database):
<table>
<tr><th>LAND SYSTEM</th><th>DESCRIPTION</th></tr>
<tr><td>DONEY</td><td>Landform: level plains with negligible surface drainage development; minor sparse unchannelled drainage lines, drainage foci, saline alluvial plains and sand sheets.
Soils: calcareous loamy earth, red shallow loam, pale sandy earth, red deep sand, red-brown hardpan shallow loam, red/brown non-cracking clay.</td></tr>
<tr><td>GUNDOCKERTA</td><td>Landform: extensive gently undulating plains generally with abundant stony mantles, and less extensive lower alluvial plains with narrow central zones receiving more concentrated run-on, relief usually less than 15 metres.
Soils: calcareous loamy earth, red shallow sandy duplex, stony soil, red-brown hardpan shallow loam, red/brown non-cracking clay.</td></tr>
<tr><td>HELAG</td><td>Landform: very gently inclined to level plains subject to sheet flow with central drainage tracts receiving more concentrated run-on.
Soils: red-brown hardpan shallow loam, red loamy earth, stony soil.</td></tr>
<tr><td>MORIARTY</td><td>Landform: low rises to 20 metres relief, locally with ferruginous duricrust, very gently inclined lower plains with mantles of stones and level alluvial plains; poorly defined, sparse drainage patterns.
Soils: red shallow loam, calcareous loamy earth, red shallow sand, red shallow sandy duplex, red/brown non-cracking clay.</td></tr>
</table>
</td></tr>
<tr><td>Land degradation risk</td><td>The Doney and Moriarty land systems are generally not susceptible to erosion (DPIRD, 2023; Pringle et al., 1994; GIS Database).
Where not protected by stony mantles, saline plains, and adjacent lower alluvial tracks, the Gundockerta land system is susceptible to water erosion, particularly in areas where perennial shrub cover is substantially reduced or the soil surface is disturbed (DPIRD, 2023; Pringle et al., 1994; GIS Database).
The Helag land systems is susceptible to water erosion on alluvial plains where perennial shrub cover is substantially reduced or the soil surface is disturbed (DPIRD, 2023; Pringle et al., 1994; GIS Database).</td></tr>
<tr><td>Waterbodies</td><td>The desktop assessment indicated that no permanent waterbodies are located within the application area (GIS Database). Two minor non-perennial drainage lines intersect the application area (GIS Database).</td></tr>
<tr><td>Hydrogeography</td><td>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 0.93 kilometres west of the application area (GIS Database).
The application area is located within the Goldfields Groundwater Area proclaimed under the Rights in Water and Irrigation Act 1914 (GIS Database). The mapped groundwater salinity is 3,000-7,000 and 14,000-35,000 total dissolved solids milligrams per litre, which is described as brackish, saline, and hypersaline water quality (GIS Database).</td></tr>
<tr><td>Flora</td><td>There are records of 26 priority flora within 50 kilometres of the application area (GIS Database). The application area may provide suitable habitat for 13 of these species (GIS Database; Appendix A.3).</td></tr>
</table>

Characteristic	Details
Ecological communities	There are no know threatened or priority ecological communities mapped within the application area (GIS Database). The nearest known ecological community is the Emu Land System priority ecological community (P3), located approximately 16.8 kilometres north of the application area (GIS Database). This Emu Land System is also distributed around the application area in multiple areas to the northwest, northeast, east, and southeast (GIS Database).
Fauna	There are records of 12 fauna of conservation significance within 50 kilometres of the application area (GIS Database; Appendix A.4).

A.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 - Murchison	28,120,586	28,044,823	~99	2,185,987	7.77
Beard vegetation associations - State					
10	145,676	144,162	~98	4,438.04	3.05
2903	28,308	27,330	~96	N/A	N/A
Beard vegetation associations - Murchison bioregion					
10	65,387	64,757	~99	3,052.41	4.67
2903	28,295	27,317	~96	N/A	N/A

Government of Western Australia (2019)

A.3. Flora analysis table

A database search returned the following conservation significant flora species with records within a 50 kilometre radius of the application area, with consideration for the site characteristics set out above, relevant datasets, and Florabase (Appendix D.1; GIS Database; Western Australian Herbarium, 1998-).

Species	Conservation status	Distance of closest record to application area (km)	Habitat description	Suitable habitat? [Y, N, N/A]	Are surveys adequate to identify? [Y, N, N/A]
Acacia epedunculata	1	4.83	Gently sloping to gently undulating plateau areas, sandplains, or uplands, on granites, gneisses, and allied rocks, with long gentle slopes and, in places, abrupt erosional scarps supporting *Acacia*, *Allocasuarina*, and *Melaleuca* on yellow sand	N	Y
Alyxia tetanifolia	3	39.15	Drainage lines, near lakes, and gently undulating valley plains and pediments; some outcrop of basic rock, supporting sparse mulga and other *Acacia* shrublands with patches of halophytic shrubs on sandy clay, loam, concretionary gravel	Y	Y
Angianthus prostratus	3	1.03	Saline depressions, near salt lake chains, typically supporting *Tecticornia* communities and mulga shrublands on red clay or loamy soils	N	Y
Calandrinia lefroyensis	1	17.50	Salt lakes and fringing saline plains, sandy plains and dunes with chenopod low shrublands Tecticornia communities and mulga shrublands on loamy salt lake soils	N	Y
Calandrinia quartzitica	1	39.64	Salt lakes with fringing saline alluvial plains, kopi dunes and sandy banks, supporting halophytic shrublands and *Acacia* tall shrublands on red clayey sands	N	Y
Cyathostemon verrucosus	3	30.88	Gently sloping to gently undulating plateau areas, or uplands, on granites, gneisses, and allied rocks, with long gentle slopes and, in places, abrupt erosional scarps supporting	Y	Y

			Acacia, *Allocasuarina*, and *Melaleuca* on yellow sand, sandy loam, or clayey sand		
Elachanthus pusillus	2	33.11	Rocky ranges and hills of greenstones-basic igneous rocks supporting *Eucalyptus* woodlands on red clay loam	N	Y
Eleocharis papillosa	3	31.72	Gently undulating sandplains of hummock grassland supporting scattered shrubs or mallee *Triodia*, *Acacia*, *Grevillea*, *Eucalyptus* species on red clay over granite, open clay flats, and claypans	Y	Y
Eremophila praecox	2	10.12	Gently undulating valley plains and pediments; some outcrop of basic rock supporting *Eucalyptus* woodlands on red/brown sandy loam	Y	Y
Eremophila xantholaemus	1	40.99	Gently undulating valley plains and pediments; some outcrop of basic rock supporting *Eucalyptus* woodlands on stony brown loam	Y	Y
Eucalyptus jutsonii subsp. *jutsonii*	4	13.12	Gently undulating sandplains supporting mixed tall shrublands and hummock grasslands on red to pale orange deep sands	Y	Y
Eucalyptus x *brachyphylla*	4	34.82	Granite outcrops supporting *Eucalyptus* woodlands on sandy loam	N	Y
Frankenia glomerata	4	33.11	Salt lakes, channels, flats and associated dunes supporting *Tecticornia* with thicket and scrub on saline white sand	N	Y
Gompholobium cinereum	3	40.55	Gently undulating sandplain, well-drained open sites, roadsides, and gentle slopes scarps supporting *Acacia*, *Allocasuarina*, and *Melaleuca* on yellow sand, clayey sand, brown loam, sandy gravel, laterite	Y	Y
Lepidium fasciculatum	3	33.82	Very gently inclined scarp with external drainage via a well developed network of incipient streams supporting open woodland mallee on alkaline grey shallow sandy duplex soils and calcareous loamy earths with minor non-cracking clays and bare rock	Y	Y
Melaleuca coccinea	3	38.84	Gently undulating valley plains and pediments; some outcrop of basic rock supporting *Eucalyptus* woodland on sandy loam over granite; Granite outcrops, sandplain, river valleys	Y	Y
Notisia intonsa	3	24.42	Undulating terrain with small gently sloping plains and some ranges on basic schists, gneisses, and allied rocks supporting *Eucalyptus* woodland and mulga on red loamy earth, calcareous shallow loam	Y	Y
Ptilotus procumbens	1	38.84	Gently undulating valley plains and pediments; some outcrop of basic rock supporting mulga and *Eucalyptus* woodland on red loamy earth or clay	Y	Y
Ptilotus rigidus	1	11.37	Salt lakes with fringing saline alluvial plains, kopi dunes and sandy banks, supporting halophytic shrublands and *Acacia* tall shrublands	N	Y
Ptilotus sp. Kalgoorlie	1	11.48	Salt lakes and their associated areas	N	Y
Rhodanthe uniflora	1	15.59	Gilgaied drainage tract, draining greenstone hills supporting mixed halophytic shrublands occasionally with a *Eucalyptus* overstorey on brown earth	N	Y
Ricinocarpos digynus	1	10.43	Low greenstone rises and stony plains supporting chenopod shrubland with patchy *Eucalyptus* overstoreys on red shallow loam	Y	Y
Tecticornia flabelliformis	2	49.33	Salt lakes and fringing saline plains, sandy plains and dunes with chenopod low shrublands on clay, saline soils	N	Y
Thryptomene eremaea	2	47.16	Sandplains and stony plains supporting mulga woodland and hummock grassland on	Y	Y
Xanthoparmelia dayiana	3	37.99	Gently undulating valley plains and pediments; some outcrop of basic rock and salt lakes supporting mulga woodland and hummock grassland on loamy earth	N	Y
Xanthoparmelia subbarbatica	1	44.60	Coarse gritty sands and sandy duplexes associated with rock outcrops and vegetated by	N	Y

			Eucalyptus woodlands, with areas of *Allocasuarina* woodland on yellow/brown shallow sand		

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

A.4. Fauna analysis table

A database search returned the following conservation significant fauna species with records within a 50 kilometre radius of the application area (GIS Database).

Species name	Conservation status		Distance of closest record to application area (km)	Number of known records (total)
	WA	EPBC		
Calidris acuminata sharp-tailed sandpiper	MI	MI	15.95	6
Calidris alba sanderling	MI	MI	44.83	1
Calidris ferruginea curlew sandpiper	CR	MI	22.28	1
Calidris ruficollis red-necked stint	MI	MI	22.08	1
Falco peregrinus peregrine falcon	OS		44.43	1
Leipoa ocellata malleefowl	VU	VU	0.18	84
Ogyris subterrestris petrina arid bronze azure butterfly	CR	CR	34.28	17
Plegadis falcinellus glossy ibis	MI	MI	33.28	2
Thinornis rubricollis hooded plover, hooded dotterel	P4		10.45	3
Tringa brevipes grey-tailed tattler	P4	MI	44.38	1
Tringa glareola wood sandpiper	MI	MI	33.28	3
Tringa nebularia common greenshank, greenshank	MI	MI	15.95	5

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

Appendix B. 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."* Assessment: The flora desktop analysis identified that there may be suitable habitat within the application area for conservation significant flora (GIS Database; Appendix A.3). Given the multiple flora and vegetation surveys that have been conducted over the application area and surrounds did not identify any priority flora, the proposed clearing is unlikely to impact species considered potentially occurring (Botanica, 2008; 2012; 2020b; 2021; NVS, 2018).	Not likely to be at variance *as per CPS 8316/1*	No
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."* Assessment: The area proposed to be cleared contains dispersal, foraging, and breeding habitat for malleefowl.	May be at variance *as per CPS 8316/1*	Yes *Refer to Section 3.2.1, above*

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: There are no known records of threatened flora species within the application area or within a 50 kilometre radius (Appendix A.3; GIS Database). None of the flora and vegetation surveys undertaken identified any threatened flora species (Botanica, 2008; 2012; 2020b; 2021; NVS, 2018). 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, 2008; 2012; 2020b; 2021; NVS, 2018).	Not likely to be at variance *as per CPS 8316/1*	No
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."* 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 ecological community is the Emu Land System priority ecological community (P3), located approximately 16.8 kilometres north of the application area (GIS Database). This Emu Land System is also distributed around the application area in multiple areas to the northwest, northeast, east, and southeast (GIS Database). Flora and vegetation surveys of the application area and surrounds did not record vegetation that could be representative of a TEC (Botanica, 2008; 2012; 2020b; 2021; NVS, 2018).	Not likely to be at variance *as per CPS 8316/1*	No
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."* Assessment: The application area falls within the Murchison Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 99% of the pre-European vegetation still exists in the IBRA Coolgardie Bioregion (Government of Western Australia, 2019). The application area is broadly mapped as Beard vegetation associations 10: Medium woodland; red mallee group; and 2903: Medium woodland; Salmon gum, goldfield balckbutt, gimlet & *Allocasuarina cristata* (GIS Database). Approximately 96-99% of the pre-European extent of these vegetation associations remain uncleared at both the state and bioregional level (Government of Western Australia, 2019). The vegetation proposed to be cleared is unlikely to represent a significant area of remnant vegetation within a bioregional context (GIS Database).	Not at variance *as per CPS 8316/1*	No
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."* Assessment: Given the distance to the nearest conservation areas mentioned in Appendix A.1 (Conservation areas), the proposed clearing is not likely to have an impact on the environmental values of these conservation areas.	Not likely to be at variance *as per CPS 8316/1*	No
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: There are no permanent watercourses or wetlands within the application area (GIS Database). Two minor, non-permanent drainage lines intersect the application area (GIS Database). A number of flora and vegetation surveys of the application area have recorded vegetation types that are growing in association with these non-permanent drainage lines (Botanica, 2008; 2012; 2020b; 2021; NVS, 2018).	At variance *as per CPS 8316/1*	No

Assessment against the clearing principles	Variance level	Is further consideration required?
1. *Eucalyptus gracilis and Eucalyptus celastroides* creek line vegetation (Botanica, 2008) 2. *Eucalyptus salmonophloia* and *Eucalyptus oleosa* over *Acacia acuminata* over mixed shrubs (creekline vegetation) (NVS, 2018) 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."* Assessment: Some of the mapped soils and landforms mentioned in Appendix A.1 (Land degradation risk) are susceptible erosion, particularly if vegetation cover is removed. Given the amount of clearing authorised will be increased by 100 hectares; the further reduction of vegetation cover has the potential to lead to appreciable land degradation. Potential erosion may be minimised by the continued implementation of a staged clearing condition.	May be at variance *as per CPS 8316/1*	No
Principle (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."* Assessment: The Broad Arrow Dam Catchment Area, a Public Drinking Water Source Area (PDWSA), is located approximately 0.93 kilometres from the western end of the proposed haul road. The proposed clearing is unlikely to impact this PDWSA. Two minor, non-permanent drainage lines intersect the application area (GIS Database). Drainage lines in the region are dry for most of the year, only flowing briefly immediately following significant rainfall (Talis, 2020). Groundwater in the application area is varies from brackish, saline, and hypersaline water quality (GIS Database). Given no permanent watercourses, wetlands, or PDWSAs are recorded within the application area, the proposed clearing is unlikely to impact surface or ground water quality.	Not likely to be at variance *as per CPS 8316/1*	No
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."* Assessment: The climate of the Eastern Murchison subregion is described as arid, with the nearest weather station recording an average rainfall of approximately 265 millimetres per year (BoM, 2023; CALM, 2002). The application area is relatively undulating, with elevations between 350-450 metres AHD (GIS Database). Given there are no permanent watercourses or wetlands within the application area (GIS Database), the proposed clearing is unlikely to cause or exacerbate the incidence or intensity of flooding.	Not likely to be at variance *as per CPS 8316/1*	No

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.

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 D. Sources of information

D.1. GIS databases

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

- 2 Metre Contours (DPIRD-073)
- Contours (DPIRD-073)
- 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
- 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)
- Soil Landscape Mapping – Western Australia attributed by WA Soil Group (DPIRD-076)
- 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)

D.2. References

Anditi (2023) Kalgoorlie Malleefowl Mound Analysis from LIDAR. Prepared by Anditi Pty Limited, for Norton Gold Fields Limited, February 2023.

Botanica (2008) Flora and Vegetation Survey of Paddington's Golden Cities (Tenement's M24/564 and M24/565. Prepared by Botanica Consulting, for Paddington Gold Pty Ltd, March 2008.

Botanica (2012) Golden Cities Level 1 Flora and Vegetation Survey. Prepared by Botanica Consulting, for Norton Gold Fields Limited, January 2012.

Botanica (2016) Breeding Season Malleefowl Survey 2015-2016. Prepared by Botanica Consulting, for Norton Gold Fields Limited, January 2016.

Botanica (2019) Golden Cities Malleefowl Survey 2019. Prepared by Botanica Consulting, for Norton Gold Fields Limited, September 2019.

Botanica (2020a) Breeding Season Malleefowl Survey. Prepared by Botanica Consulting, for Norton Gold Fields Limited, February 2020.

Botanica (2020b) Reconnaissance Flora and Vegetation & Fauna Survey Mulgarrie Project. Prepared by Botanica Consulting, for Norton Gold Fields Pty Ltd, February 2020.

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Botanica (2022) Breeding Season Malleefowl Survey. Prepared by Botanica Consulting, for Norton Gold Fields Limited, February 2022.

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Environmental Protection Authority (EPA) (2016) Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment. Available from: http://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey_Dec13.pdf

Environmental Protection Authority (EPA) (2016) Technical Guidance – Terrestrial Fauna Surveys. Available from: https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/Tech%20guidance-%20Terrestrial%20Fauna%20Surveys-Dec-2016.pdf

Environmental Protection Authority (EPA) (2020) Technical Guidance – Terrestrial Fauna Surveys. Available from: https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/2020.09.17%20-%20EPA%20Technical%20Guidance%20-%20Vertebrate%20Fauna%20Surveys%20-%20Final.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. https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics

Harewood, G. (2020) Ant Survey. Clearing Permit Area (CPS 8872/1) Mulgarrie Project Paddington Gold Pty Ltd. Prepared by Greg Harewood, for Paddington Gold Pty Ltd, June 2020.

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Pringle, H.J.R., Van Vreeswyk, A.M.E. and Gilligan, S.A. (1994) An inventory and condition survey of the north-eastern Goldfields, Western Australia. Technical Bulletin No. 87. Department of Agriculture Western Australia

Talis (2020) Purpose Native Vegetation Clearing Permit Application for the Mulgarrie Gold Project. Prepared by Talis Consultants, for Paddington Gold Pty Ltd, April 2020.

Terrestrial Ecosystems (2018) Level 1 Fauna Risk Assessment and the results of a Malleefowl for the Golden Cities project area. Prepared by Terrestrial Ecosystems, for Norton Gold Fields Limited, January 2018.

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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
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	*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.