Department of Energy, Mines, Industry Regulation and Safety

GOVERNMENT OF WESTERN AUSTRALIA

Clearing Permit Decision Report

1. Application details and outcomes

1.1. Permit application details

Permit number:	8175/5
Permit type:	Purpose Permit
Applicant name:	Pilgangoora Operations Pty Ltd
Application received:	16 August 2024
Application area:	1,730.1 hectares
Purpose of clearing:	Mineral Production and Associated Activities
Method of clearing:	Mechanical Removal
Tenure:	General Purpose Leases 45/350, 45/351, 45/356 Mining Leases 45/78, 45/333, 45/511, 45/1256 Miscellaneous Licences 45/402, 45/411, 45/413, 45/414, 45/417, 45/421, 45/425, 45/429, 45/430, 45/473
Location (LGA area/s):	Shire of East Pilbara
Colloquial name:	Pilgangoora Lithium-Tantalum Project

1.2. Description of clearing activities

Pilgangoora Operations Pty Ltd proposes to clear up to 1,730.1 hectares of native vegetation within a boundary of approximately 2,192.7 hectares, for the purpose of mineral production and associated activities. The project is located approximately 70 kilometres south-southeast of Port Hedland, within the Shire of East Pilbara.

The application is to allow for the continued operation of the Pilgangoora Lithium-Tantalum Project and mine expansion (Pilgangoora, 2024a, 2024b). Clearing permit CPS 8175/1 was granted by the Department of Mines, Industry Regulation and Safety (now the Department of Energy, Mines, Industry Regulation and Safety) on 11 October 2018 and was valid from 3 November 2018 to 31 December 2023. The permit authorised the clearing of up to 1,330.1 hectares of native vegetation within a boundary of approximately 2,251 hectares, for the purpose of mineral production and associated activities. This permit replaced CPS 7449/3.

Clearing permit CPS 8175/2 was granted on 19 September 2023 and was valid from 3 November 2018 to 31 December 2028. The permit boundary was reduced due to tenure changes (Miscellaneous Licences 45/388 and 45/426 were replaced with Miscellaneous Licences 45/421 and 45/429) and the permit duration was extended by five years.

Clearing permit CPS 8175/3 was granted on 28 November 2023, amending the permit to increase the amount of clearing from 1,330.1 hectares to 1,730.1 hectares. The permit boundary remained unchanged.

On 16 August 2024, the Permit Holder applied to amend CPS 8175/3 to include the additional tenure of General Purpose Leases 45/350, 45/351, 45/356 and Miscellaneous Licences 45/425 and 45/473. The Miscellaneous Licences have been applied to be added to the permit as they overlap L45/402 which has limited uses. The General Purpose Leases 45/350, 45/351 and 45/356 have been applied to be added to the permit to support the purpose of establishing a waste rock landform, topsoil stockpiles, laydown areas, roads and other activities supporting mining at the Pilgangoora project. The area and boundary of clearing remains unchanged.

Due to a technical issue, CPS 8175/4 could not be created in CPS. This current amendment application is being assessed as CPS 8175/5.

According to a review of the latest Annual Clearing Report (Pilgangoora, 2024c), 621.38 hectares had been cleared under this permit as of June 2024.

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	1 April 2025
Decision area:	1,730.1 hectares of native vegetation

1.4. Reasons for decision

This clearing permit amendment application was submitted, accepted, assessed, and determined in accordance with sections 51KA(1) and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) advertised the application for a public comment for a period of 7 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, vegetation and fauna assessment (MMWC, 2016b), the clearing principles set out in Schedule 5 of the EP Act (Appendix B), proposed avoidance and minimisation measures (Section 3.1), relevant planning instruments and any other matters considered relevant to the assessment (Section 3.3).

The 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 conservation significant flora;
- impacts to conservation significant fauna or their habitats;
- potential land degradation; and
- impacts to riparian vegetation.

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

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

- commence construction no later than three months after undertaking clearing to reduce the risk of erosion;
- undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity;
- avoid, minimise to reduce the impacts and extent of clearing;
- take hygiene steps to minimise the risk of the introduction and spread of weeds;
- a watercourse management condition to avoid clearing riparian vegetation where practicable, and maintain existing surface water flow;
- a flora management condition requiring a targeted flora survey to be undertaken prior to clearing within L 45/413 and L 45/414 for Quoya zonalis, submit the report to the CEO, and maintain a 50 metre buffer around identified individuals;
- a flora management condition where no clearing of identified Euploca mutica or within 10 metres is permitted, unless first approved by the CEO; and
- a fauna management condition to undertake pre-clearance inspections for the greater bilby (*Macrotis lagotis*) and brush-tailed mulgara (*Dasycercus blythi*) prior to clearing activities.

The Delegated Officer determined that the proposed addition of tenure which covers previously existing and considered tenure 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 (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)

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, October 2021)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2016a)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2020)

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

Pilgangoora Operations Pty Ltd (2023a) have outlined they maintain following internal databases, and avoidance and mitigation measures:

- Internal company wide GIS layer that contains conservation significant flora locations.

- Investigation of alternate placement of activities during planning activities.
- Land Use Certificate Procedure – to outline the process for managing work activities which disturb ground or vegetation as part of construction, commissioning and operation of the Pilgangoora Operations. Objectives of the LUC Procedure include:
    - Ensure all work activities are undertaken within approved project boundaries.
    - Ensure all work activities are undertaken in accordance with project environmental requirements and approvals conditions.
    - Minimise the total footprint of disturbance as far as practicable for the safe and efficient completion of work activities.
    - Minimise potential impacts to fauna, fauna habitat and potential sensitive areas.

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 A; Appendix B) reveals that the assessment against the clearing principles has not changed significantly from the Clearing Permit Decision Report for CPS 8175/3, however updated information on conservation significant fauna species has been incorporated into this assessment.

3.2.1. Biological values (fauna) - Clearing Principles (a) and (b)

Assessment

A fauna survey was conducted over the majority of the main Pilgangoora mining operation in August 2015 by MMWC Environmental Pty Ltd. The same area was again subject to a single phase fauna survey in March 2016 by 360 Environmental Pty Ltd. Areas not surveyed consist of linear infrastructure, required for access and a borefield pipeline, and are unlikely to present provide significantly different fauna habitat compared to the main Pilgangoora mining operation. Other surveys undertaken for the larger Pilgangoora Project, in close proximity to the application area, are also referenced below.

Four broad fauna habitats were recorded within the application area (360 Environmental, 2016a; MMWC, 2016b):

- rocky hill
- stony plain
- drainage line
- sand plain

These habitats are widespread and common in the local area and broader Pilbara bioregion (MMWC, 2016b), however the drainage line habitat is considered high value fauna habitat, primarily due to its array of microhabitats and its potential for foraging and use as a wildlife corridor (360 Environmental, 2016a). Potential impacts to the drainage line habitat as a result of the proposed clearing (increasing the approved clearing by 400 hectares) may be minimised by the continued implementation of a watercourse management condition.

Two conservation significant fauna species were identified within the application area through extensive targeted surveying or by secondary evidence (i.e. mounds): Pilbara leaf-nosed bat (*Rhinonicteris aurantia* (Pilbara), VU) and western pebble-mound mouse (*Pseudomys chapmani*, P4) (360 Environmental, 2015; 2016a; 2016b; MMWC, 2015; 2016b).

A Pilbara leaf nosed bat survey was undertaken within the application area and surrounds by 360 Environmental between 12 to 16 October 2015. A total of 29 Pilbara leaf-nosed bat calls were detected across three of the sites within the application area, and a total of 365 calls were recorded across 17 of the 24 sites (360 Environmental, 2015). The calls recorded within the application area were all within ephemeral creek line habitats (360 Environmental, 2015). The seven sites within the application area were evaluated as occasional foraging areas due to the presence of suitable vegetation and seasonal water (360 Environmental, 2015). Cliff lines and breakaways in these areas may be utilised as flyaway areas (360 Environmental, 2015). These areas correlate with mapped drainage lines (360 Environmental, 2015; GIS Database). No roosts were identified within the application area, which offers primarily foraging and dispersal habitat (360 Environmental, 2015; 2016b). Impacts to this species may be minimised by continued implementation of a vegetation management condition, ensuring no clearing of riparian vegetation is undertaken where practicable.

MMWC (2016b) recorded two disused western pebble-mound mouse mounds within the application area, both located within stony plain habitat (GIS Database). Natural Area (2016) recorded two active western pebble-mound mouse mounds in March 2016, and Ecologia (2018) recorded one inactive western pebble-mound mouse mound in May 2018, all within 0.5 kilometres from the application area. APM (2022; 2023a) recorded seven active and four intermediate mounds (determined by Anstee, 1996 methodology) between 0.14 and 1.74 kilometres from the application area in October 2022 and March 2023. APM (2022) also captured one western pebble-mound mouse on a motion sensor camera in October 2022, 0.77 kilometres from the application area. Based on these records it is likely that western pebble-mound mouse may utilise habitat within the application area.

A northern quoll (*Dasyurus hallucatus*, EN) targeted survey was undertaken on a tenement outside the application area (M 45/1266) by Terrestrial Ecosystems between 23 to 24 September and 11 to 12 November 2019. This tenement is directly adjacent to the Pilgangoora operations and contains rocky hill habitat that is absent from the application area (360 Environmental, 2016a; MMWC, 2016b; Terrestrial Ecosystems, 2020). Twelve camera traps (of 30) recorded northern quolls, all within the rocky hills habitat type along the north-south rocky ridgeline (Terrestrial Ecosystems, 2020). While there is limited denning habitat for northern quoll within the application area, it should be noted that a deceased northern quoll was recorded in August 2018, along the main access road of the application area (GIS Database). This, and a recent scat record recorded within 260 metres of the application area (M 45/1256) (APM, 2023a) suggests northern quolls may utilise the application area as foraging and dispersal habitat. Impacts to this species may be minimised by the continued implementation of a vegetation

management condition, ensuring no clearing of riparian vegetation is undertaken where practicable and the continued implementation of a directional clearing condition.

While the greater bilby (*Macrotis lagotis*, VU) was not recorded within the application area during the fauna survey (MMWC, 2016b), all three surveys (APM, 2022, 2023a, 2023b) conducted within the application area for CPS 10388/1, a recent application area immediately adjacent to the application area for CPS 8175/5, recorded potential signs of greater bilby. Despite lack of records within the application area during the survey, it is possible that this species occurs within and utilises the application area, given that this species is known from the local area and that suitable habitat is present for this species (similar habitat to that present in CPS 10388/1, i.e. sandy/undulating plains (DCCEEW, 2025)). Considering the size of the proposed clearing activities (1,703.1 hectares) and the presence of suitable habitat, the proposed clearing activities may impact on local populations of this species if present. This impact would be significant considering the vulnerability status of this species. To align this Pilgangoora Operations Pty Ltd project with adjacent permits, it is recommended to implement a pre-clearance inspection condition for this species.

Brush-tailed mulgara (*Dasycercus blythi*, P4) are known to inhabit sandy rises that occur sporadically throughout undulating plains (DCCEEW, 2025). This species uses open space between vegetation, a microhabitat that is known to support important prey species and may forage in termite mounds (Molyneux et al., 2018). Suitable habitat is present within the application area, however the fauna survey did not identify evidence of this species (MMWC, 2016b). As this species has been recorded within five kilometres of the application area and suitable habitat is present, it is considered that this species could potentially occur (GIS Database). To align this Pilgangoora Operations Pty Ltd project with adjacent permits, it is recommended to implement a pre-clearance inspection condition for this species.

Other species that have previously been recorded within the application area (Appendix **Error! Reference source not found.**), or possibly occur within the application area are highly mobile avian species that are unlikely to be reliant upon the available habitats and are not considered to be impacted by the proposed increase in approved clearing.

Conclusion

For the reasons set out above, it is considered that the impacts of the proposed clearing on potentially suitable conservation significant fauna habitat can be managed by implementing a pre-clearance fauna survey condition for greater bilby and brush-tailed mulgara, and the continued implementation of a directional clearing and vegetation management conditions.

Conditions

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

- Pre-clearance inspections for the greater bilby (*Macrotis lagotis*) and brush-tailed mulgara (*Dasycercus blythi*) to be carried out before clearing activities commence.

And the following management measures will be continued to be implemented as conditions on the clearing permit:

- Directional clearing - undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity; and
- Vegetation management - requiring the permit holder to avoid riparian vegetation where possible and to maintain surface water flow.

3.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 30 August 2024 by the Department of Energy, Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

There are two native title claims (WCD2018/015, WCD2019/010) over the area under application (DPLH, 2025). These claims have been determined by the Federal Court on behalf of the claimant groups. 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 registered Aboriginal Sites of Significance within the application area (DPLH, 2025). 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 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

<table>
<tr><th>Characteristic</th><th>Details</th></tr>
<tr><td>Local context</td><td>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 and mining operations within the Chichester subregion of the Pilbara bioregion (GIS Database).</td></tr>
<tr><td>Ecological linkage</td><td>The application area is not considered a significant ecological linkage. The drainage lines in the application area are likely to be used as dispersal corridors by several fauna species.</td></tr>
<tr><td>Conservation areas</td><td>The application area is not located within any conservation areas (GIS Database). The nearest legislated conservation area is Mungaroona Range Nature Reserve, located approximately 62 kilometres southwest of the application area (GIS Database).</td></tr>
<tr><td>Vegetation description</td><td>The vegetation of the application area is broadly mapped as the following Beard vegetation associations:
82: Hummock grasslands, low tree steppe; snappy gum over Triodia wiseana;
93: Hummock grasslands, shrub steppe; kanji over soft spinifex; and
619: Medium woodland; river gum (Eucalyptus camaldulensis) (GIS Database).
A flora and vegetation survey was undertaken over the majority of the application area (covering M 45/333, M 45/78, M 45/511 and M 45/1256) by MMWC Environmental Pty Ltd. A total of eleven vegetation types were identified within the application area (MMWC, 2016b):
<table>
<tr><th>Landform</th><th>Type</th><th>Description</th></tr>
<tr><td>Sand plain</td><td>1a</td><td>Scattered low trees of Corymbia hamersleyana over open shrubland of Acacia acradenia, Acacia inaequilatera and Acacia ancistrocarpa over low open shrubland of Tephrosia sp. Bungaroo Creek (M.E. Trudgen 11601) over open hummock grassland of Triodia wiseana and Triodia epactia</td></tr>
<tr><td>Stony plain</td><td>2a</td><td>Scattered low trees of Corymbia hamersleyana over scattered tall shrubs of Acacia inaequilatera over low open shrubland of Acacia stellaticeps and Corchorus parviflorus over open hummock grassland of Triodia sp. Shovelanna Hill (S. van Leeuwen 3835) and Triodia wiseana</td></tr>
<tr><td rowspan="3">Hill</td><td>3a</td><td>Scattered tall shrubs of Acacia inaequilatera over scattered shrubs of Acacia acradenia over hummock grassland of Triodia wiseana, Triodia brizoides and Triodia sp. Shovelanna Hill (S. van Leeuwen 3835)</td></tr>
<tr><td>3b</td><td>Scattered shrubs of Acacia inaequilatera over hummock grassland of Triodia wiseana and Triodia sp. Shovelanna Hill (S. van Leeuwen 3835)</td></tr>
<tr><td>3c</td><td>Scattered low trees of Corymbia hamersleyana over high shrubland of Acacia orthocarpa over hummock grassland of Triodia sp. Shovelanna Hill (S. van Leeuwen 3835) and Triodia wiseana</td></tr>
<tr><td>River</td><td>4a</td><td>Low woodland of Eucalyptus victrix over high open shrubland of Acacia tumida var. pilbarensis, Melaleuca glomerata and Acacia bivenosa over open hummock grassland of Triodia epactia over open tussock grassland of *Cenchrus ciliaris and Cymbopogon ambiguus</td></tr>
<tr><td rowspan="2">Creek</td><td>5a</td><td>Low open woodland of Corymbia hamersleyana and Corymbia candida subsp. dipsodes over high shrubland of Acacia ampliceps, Acacia acradenia, Melaleuca glomerata, Acacia pyrifolia and Petalostylis labicheoides over very open hummock grassland of Triodia epactia over open tussock grassland of *Cenchrus ciliaris, *Cenchrus setiger and Cymbopogon ambiguus over scattered sedges of Cyperus vaginatus</td></tr>
<tr><td>5b</td><td>Low open woodland of Eucalyptus victrix and Corymbia hamersleyana over high shrubland of Acacia acradenia over scattered shrubs of Acacia bivenosa over open hummock grassland of Triodia epactia over very open tussock grassland of *Cenchrus ciliaris and Cymbopogon ambiguus</td></tr>
<tr><td rowspan="2">Gully</td><td>6a</td><td>Scattered low trees of Corymbia hamersleyana over high open shrubland of Acacia acradenia and Grevillea wickhamii subsp. hispidula over scattered shrubs of Acacia bivenosa and Cajanus cinereus over open hummock grassland of Triodia epactia and Triodia wiseana over very open tussock grassland of Eriachne mucronata and Cymbopogon ambiguus</td></tr>
<tr><td>6b</td><td>Scattered low trees of Corymbia hamersleyana over high shrubland of Acacia acradenia over open shrubland of Acacia bivenosa over open hummock grassland of Triodia epactia</td></tr>
</table>
</td></tr>
</table>

Characteristic	Details

	6c	Scattered low trees of *Corymbia hamersleyana* over high shrubland of *Acacia tumida* var. *pilbarensis* and *Petalostylis labicheoides* over open hummock grassland of *Triodia epactia* and *Triodia angusta* over very open tussock grassland of *Eriachne benthamii*

The Pilgangoora Access Road (L 45/388) was not surveyed; however, 14 relevés were surveyed along the length of L 45/388 at nine proposed borrow pit locations, which provide information on the likely habitat types present throughout the length of L45/388. The following twelve vegetation types were identified (MMWC, 2016a):

Landform	Type	Description
Stony plain	1a	Scattered low trees of *Corymbia hamersleyana* over open hummock grassland of *Triodia wiseana* and *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835)
	1b	Low open woodland of *Corymbia hamersleyana* over high open shrubland of *Acacia bivenosa* over hummock grassland of *Triodia angusta* and *Triodia wiseana* over scattered tussock grasses of *Eragrostis eriopoda*
	1c	Scattered low trees of *Corymbia hamersleyana* over open shrubland of *Acacia acradenia* and *Acacia* bivenosa over *Triodia wiseana*
	1d	Scattered low trees of *Corymbia hamersleyana* over open shrubland of *Acacia ancistrocarpa* over open hummock grassland of *Triodia epactia* and *Triodia brizoides*
	1e	Open shrubland of *Acacia ancistrocarpa* over open hummock grassland of *Triodia brizoides* and *Triodia epactia*
	1f	Scattered low trees of *Eucalyptus victrix* and *Corymbia hamersleyana* over open shrubland of *Acacia acradenia* over low open shrubland of *Acacia stellaticeps* over open hummock grassland of *Triodia wiseana* over very open tussock grassland of **Cenchrus* sp.
Sand plain	2a	Low open woodland of *Corymbia hamersleyana* over high open shrubland of *Acacia orthocarpa* over open hummock grassland of *Triodia wiseana*
	2b	Scattered low trees of *Corymbia hamersleyana* over low open heath of *Acacia stellaticeps* over open hummock grassland of *Triodia brizoides*
River bank	3a	Low open woodland of *Melaleuca argentea* over open heath of *Melaleuca argentea* and *Acacia trachycarpa* over very open hummock grassland of *Triodia epactia* over scattered herbs of *Cassytha capillaris*
Creek	4a	Low open woodland of *Eucalyptus victrix* over high shrubland of *Acacia ampliceps* and *Melaleuca glomerata* over open hummock grassland of *Triodia angusta* and *Triodia epactia* over scattered tussock grasses of *Eriachne benthamii*
Broad shallow drainage	5a	Scattered low trees of *Corymbia hamersleyana* and *Corymbia zygophylla* over open scrub of *Acacia tumida* var. *pilbarensis* and *Acacia acradenia* over hummock grassland of *Triodia wiseana*
Flood plain	6a	Scattered low trees of *Corymbia hamersleyana* over high open shrubland of *Acacia trachycarpa* and *Hakea lorea* subsp. *lorea* over open hummock grassland of *Triodia wiseana*

Vegetation condition

Surveys of the application area determined the vegetation to be the following conditions (MMWC, 2016a; 2016b; Trudgen, 1991):

Excellent	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
Very good	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.
Good	More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds.
Poor	Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.
Very poor	Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching

<table>
<tr><th>Characteristic</th><th>Details</th></tr>
<tr><td></td><td>
<table>
<tr><td></td><td>good condition without intensive management. Usually with a number of weed species present including very aggressive species.</td></tr>
<tr><td>Completely degraded</td><td>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.</td></tr>
</table>
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 150-250 metres AHD (GIS Database). The climate of the Chichester subregion is described as semi-desert-tropical, with the nearest weather station recording an average rainfall of approximately 386.4 millimetres per year (BoM, 2023; CALM, 2002).</td></tr>
<tr><td>Soil description</td><td>The soils and landforms within the application area are primarily mapped as (DPIRD, 2023; Van Vreeswyk et al., 2004; GIS Database):
<table>
<tr><th>LAND SYSTEM</th><th>DESCRIPTION</th></tr>
<tr><td>MACROY</td><td>Landform: erosional surfaces; gently undulating stony plains and interfluves with quartz surface mantles, sandy surfaced plains, minor calcrete plains, closely spaced tributary drainage lines in upper parts of system becoming much wider downslope; minor granite hills
Soils: red shallow loam, red deep sandy duplex</td></tr>
<tr><td>TALGA</td><td>Landform: erosional surfaces; hill tracts and ridges on basalt, greenstones, schist, other metamorphics and chert with rocky rounded crests and ridge tops extending for many kilometres; very steep upper slopes, more gently inclined lower footslopes, restricted lower stony plains and interfluves
Soils: stony soil, calcareous shallow loam, red shallow loam</td></tr>
</table>
To a much lesser extent, the application area is also mapped within the following land systems (DPIRD, 2023; Van Vreeswyk et al., 2004; GIS Database):
<table>
<tr><th>LAND SYSTEM</th><th>DESCRIPTION</th></tr>
<tr><td>PLATFORM</td><td>Landform: erosional surfaces formed by partial dissection of the old tertiary surface; very gently inclined upper plains with extensive marginal dissection zones with gently inclined to steep slopes, closely spaced dendritic or sub-parallel drainage patterns with narrow floors in upper parts
Soils: stony soil</td></tr>
<tr><td>RIVER</td><td>Landform: flood plains and river terraces subject to fairly regular overbank flooding from major channels and watercourses, sandy banks and poorly defined levees and cobble plains
Soils: red deep sand, red loamy earth</td></tr>
<tr><td>SATIRIST</td><td>Landform: mainly depositional surfaces; level to very gently inclined stony plains, plains with gilgai microrelief, low stony rises and drainage flats; sparse tributary drainage patterns with minor channels
Soils: red/brown non-cracking clay, hard cracking clay</td></tr>
</table>
</td></tr>
<tr><td>Land degradation risk</td><td>The above land systems are generally not susceptible to erosion, however the River land system is highly susceptible to erosion if vegetative cover is removed (Van Vreeswyk et al., 2004; GIS Database). The significant number of drainage lines intersection the application area may also be prone to erosion if vegetation cover is removed (GIS Database).</td></tr>
<tr><td>Waterbodies</td><td>The desktop assessment and aerial imagery indicated that multiple minor non-perennial drainage lines intersect the application area (GIS Database). The application area also intersects the Turner River along the access road, which is described as a major non-perennial watercourse (GIS Database).</td></tr>
<tr><td>Hydrogeography</td><td>The application area is located within the Pilbara Surface Water Area and the Pilbara Groundwater Area, which are proclaimed under the Rights in Water and Irrigation Act 1914 (GIS Database).
The mapped groundwater salinity is 500-1000 total dissolved solids milligrams per litre, which is described as marginal water quality (GIS Database).</td></tr>
</table>

Characteristic	Details
Flora	There are records of 23 conservation significant flora within 50 kilometres of the application area (GIS Database).
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 Gregory Land System priority ecological community (P3), located approximately 14.8 kilometres west of the application area (GIS Database).
Fauna	There are records of 29 fauna species of conservation significance within 50 kilometres of the application area (GIS Database).
Fauna habitat	Four broad fauna habitats were recorded within the application area (360 Environmental, 2016a; MMWC, 2016b): • rocky hill • stony plain • drainage line • sand plain

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 - Pilbara	17,808,657	17,731,764	~99	1,801,714	10.12
Beard vegetation associations - State					
82	2,565,901	2,553,206	~99	295,377	11.51
93	3,044,309	3,040,640	~99	59,536	1.96
619	119,373	118,205	~99	236	0.20
Beard vegetation associations - Pilbara bioregion					
82	2,563,583	2,550,888	~99	295,377	11.52
93	3,042,114	3,038,471	~99	59,536	1.96
619	118,920	118,116	~99	236	0.20

Government of Western Australia (2019)

A.3. Fauna analysis table

A database search returned the following conservation significant fauna species with records within a 50 kilometre radius of the application area, with consideration for the site characteristics set out above, relevant datasets, and the results of fauna (Appendix A.1; 360 Environmental, 2016a; MMWC, 2016b; GIS Database).

The likelihood of occurrence was determined by utilising the metric defined by 360 Environmental (2016a) and MMWC (2016b):

Recorded	recorded during the field survey or site reconnaissance
Likely	habitat is present in the survey area and the survey area is in the species' known distribution
Possible	limited or no suitable habitat is present in survey area, but is nearby. The species has good dispersal abilities and is known from the general area
Unlikely	no suitable habitat is present in survey area but is nearby, the species has poor dispersal abilities, but is known from the general area; or suitable habitat is present, however, the survey area is outside of the species' known distribution

Species name	Conservation status		Distance of closest record to application area (km) (GIS Database)	Habitat availability	Likelihood of occurrence	Number of known records (total in 50 kilometres)	Are surveys adequate to identify? [Y, N, N/A]
	WA	EPBC					
BIRDS							
Actitis hypoleucos common sandpiper	MI	MI	<8	may fly above	unlikely	4	Y
Apus pacificus fork-tailed swift	MI	MI	within	may fly above	unlikely (360 Environmental, 2016a; MMWC, 2016b)	11	Y
Arenaria interpres ruddy turnstone	MI	MI	<40	may fly above	unlikely	1	Y
Calidris acuminata sharp-tailed sandpiper	MI	MI	<40	may fly above	unlikely	1	Y
Calidris ruficollis red-necked stint	MI	MI	<40	may fly above	unlikely	1	Y
Charadrius veredus oriental plover	MI	MI	within	may fly above	unlikely	1	Y
Falco hypoleucos grey falcon	VU		5.03	foraging	possible (360 Environmental, 2016a; MMWC, 2016b)	8	Y
Falco peregrinus peregrine falcon	OS		within	foraging	possible (360 Environmental, 2016a; MMWC, 2016b)	4	Y
Fregata ariel lesser frigatebird	MI	MI	<40	may fly above	unlikely	1	Y
Glareola maldivarum Oriental pratincole	MI	MI	<39	may fly above	unlikely	4	Y
Hydroprogne caspia Caspian tern	MI	MI	<40	may fly above	unlikely	2	Y
Pandion cristatus osprey, eastern osprey	MI	MI	<40	may fly above	unlikely	3	Y
Pluvialis fulva Pacific golden plover	MI	MI	<40	may fly above	unlikely	1	Y

Species name	Conservation status		Distance of closest record to application area (km) (GIS Database)	Habitat availability	Likelihood of occurrence	Number of known records (total in 50 kilometres)	Are surveys adequate to identify? [Y, N, N/A]
	WA	EPBC					
Thalasseus bergii crested tern	MI	MI	<40	may fly above	unlikely	1	Y
Tringa brevipes grey-tailed tattler	MI & P4	MI	<40	may fly above	unlikely	1	Y
Tringa glareola wood sandpiper	MI	MI	<31	may fly above	unlikely	1	Y
Tringa nebularia common greenshank, greenshank	MI	MI	<40	may fly above	unlikely	2	Y
MAMMALS							
Dasycercus blythi brush-tailed mulgara	P4		<5	suitable habitat	possible (360 Environmental, 2016a; MMWC, 2016b)	119	Y
Dasyurus hallucatus northern quoll	EN	EN	within	foraging; dispersal	possible (360 Environmental, 2016a; MMWC, 2016b)	1254	Y
Lagorchestes conspicillatus leichardti spectacled hare-wallaby (mainland)	P4		within (historical) <8 (2018)	limited habitat	possible (360 Environmental, 2016a; MMWC, 2016b)	151	Y
Leggadina lakedownensis northern short-tailed mouse, kerakenga	P4		<35	limited habitat	possible (360 Environmental, 2016a; MMWC, 2016b)	1	Y
Macroderma gigas ghost bat	VU	VU	<3	foraging; dispersal	possible (360 Environmental, 2016a); likely (MMWC, 2016b)	110	Y
Macrotis lagotis bilby, dalgyte, ninu	VU	VU	0.21	suitable habitat	possible (360 Environmental, 2016a; MMWC, 2016b)	388	Y
Pseudomys chapmani western pebble-mound mouse, ngadji	P4		within	suitable habitat present, mostly cleared	recorded	122	Y
Rhinonicteris aurantia (Pilbara) Pilbara leaf-nosed bat	VU	VU	0.19	foraging	recorded	378	Y
Antechinomys longicaudatus long-tailed dunnart	P4		<11	limited habitat	possible (360 Environmental, 2016a; MMWC, 2016b)	3	Y
REPTILES							
Anilios ganei Gane's blind snake (Pilbara)	P1		within	limited habitat	unlikely (360 Environmental, 2016a; MMWC, 2016b)	2	N
Ctenotus nigrilineatus pin-striped finesnout Ctenotus	P1		<35	no suitable habitat	unlikely (360 Environmental, 2016a; MMWC, 2016b)	1	Y
Liasis olivaceus barroni Pilbara olive python	VU	VU	<6	limited habitat, drainage lines may provide dispersal habitat and hunting sites	unlikely (360 Environmental, 2016a); possible (MMWC, 2016b)	56	Y

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

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 area proposed to be cleared contains locally significant flora and fauna habitats.	At variance (as per CPS 8175/3)	Yes *Refer to Section 3.2.1, above.*
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 habitat for conservation significant fauna.	At variance (as per CPS 8175/3)	Yes *Refer to Section 3.2.1, above.*
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: The area proposed to be cleared is unlikely to contain habitat for threatened flora species listed under the BC Act.	Not likely to be at variance (as per CPS 8175/3)	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 Gregory Land System priority ecological community (Priority 3), located approximately 14.8 kilometres west of the application area (GIS Database). Flora and vegetation surveys of the application area and surrounds did not record vegetation that could be representative of a TEC (MMWC, 2016a; 2016b).	Not likely to be at variance (as per CPS 8175/3)	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 occurs within the Pilbara Interim Biogeographic Regionalisation of Australia (IBRA) bioregion, in which approximately 99% of the pre-European vegetation remains (Government of Western Australia, 2019; GIS Database). The vegetation within the application area has been mapped as Beard vegetation associations 82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana*; 93: Hummock grasslands, shrub steppe; kanji over soft spinifex; and 619: Medium woodland; river gum (*Eucalyptus camaldulensis*) (GIS Database). Approximately 99% of the pre-European extent of these vegetation associations remain uncleared at both the state and bioregional level (Government of Western Australia, 2019). Given the amount of vegetation remaining in the local area and bioregion, the vegetation proposed to be cleared is not considered to represent a remnant within an extensively cleared area.	Not at variance (as per CPS 8175/3)	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 area is approximately 62 kilometres southwest of the application area, the proposed clearing is not likely to have an impact on the environmental values of this conservation area (GIS Database).	Not likely to be at variance (as per CPS 8175/3)	No

Assessment against the clearing principles	Variance level	Is further consideration required?
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: Several non-perennial watercourses run through the application area, including the Turner River (GIS Database). Field assessments of the application area identified six vegetation types that may be groundwater dependent vegetation (GDV): vegetation types 4a, 5a, and 5b (MMWC, 2016b); and vegetation types 1f, 3a, and 4a (MMWC, 2016a). Species that are known to indicate GDVs include *Eucalyptus victrix* and *Melaleuca glomerata*. One or both of these species occur within the above mentioned vegetation types, in areas where the static ground water level allows for access and utilisation (MMWC, 2016b). In addition, a number of vegetation types that are not considered potential GDVs are growing in association with watercourses: 6a, 6b, and 6c (MMWC, 2016b); 5a and 6a (MMWC, 2016a). Potential impacts to riparian vegetation may be minimised by the continued implementation of a watercourse management condition.	At variance (as per CPS 8175/3)	No
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The application area is mapped within the Macroy, Platform, River, Satirist, and Talga land systems (GIS Database). Approximately 95% of the proposed clearing falls within the Talga and Macroy land systems, which are not prone to erosion (Van Vreeswyk et al., 2004; GIS Database). Very little clearing is proposed within the Platform, River, and Satirist land systems. The Platform and Satirist land systems are generally not prone to erosion (Van Vreeswyk et al., 2004). The River land system is largely stabilised by buffel and spinifex and accelerated erosion is uncommon, however susceptibility to erosion is high or very high if vegetative cover is removed (Van Vreeswyk et al., 2004). The proposed clearing of an additional 400 hectares of native vegetation has the potential to result in land degradation issues, as there are many drainage lines throughout the application area. Potential erosion impacts as a result of the proposed clearing may be minimised by the continued implementation of a staged clearing condition and a watercourse management condition.	May be at variance (as per CPS 8175/3)	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: Given no permanent watercourses, wetlands, or Public Drinking Water Source Areas (PDWSA) 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 8175/3)	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 mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding (DPIRD, 2023; GIS Database). Large rainfall events may result in isolated flooding of non-perennial watercourses, however this is considered typical of the region.	Not likely to be at variance (as per CPS 8175/3)	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.
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):

- 10 Metre Contours (DPIRD-073)
- Contours (DPIRD-073)
- Clearing Regulations - Environmentally Sensitive Areas (DWER-046)
- Clearing Regulations - Schedule One Areas (DWER-057)
- DBCA - Lands of Interest (DBCA-012)
- DBCA - Legislated Lands and Waters (DBCA-011)
- DBCA Fire History (DBCA-060)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Groundwater Salinity Statewide (DWER-026)
- Hydrographic Catchments – Catchments (DWER-028)
- Hydrography – Inland Waters – Waterlines
- Hydrography, Linear (DWER-031)
- IBRA Vegetation Statistics
- Native Vegetation Extent (DPIRD-005)
- Pre-European Vegetation (DPIRD-006)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- 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 and Priority Flora (TPFL)
- Threatened and Priority Flora (WAHerb)
- Threatened and Priority Fauna
- Threatened and Priority Ecological Communities
- Threatened and Priority Ecological Communities (Buffers)

D.2. References

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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
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 (2023) 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 the species of fauna that are listed as critically endangered, endangered or vulnerable threatened species.

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

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

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

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

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

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

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

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

Extinct Species:

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

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

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

Specially protected species:

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

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

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

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

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

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

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

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

P **Priority species:**

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

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

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

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

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

P1 **Priority One - Poorly-known species – known from few locations, none on conservation lands**
Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, for example, agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation.

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

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

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

P3 **Priority Three - Poorly-known species – known from several locations**
Species that are known from several locations and the species does not appear to be under imminent threat or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat.

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

P4 **Priority Four - Rare, Near Threatened and other species in need of monitoring**
(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands.
(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as a conservation dependent specially protected species.
(c) Species that have been removed from the list of threatened species or lists of conservation dependent or other specially protected species, during the past five years for reasons other than taxonomy.
(d) Other species in need of monitoring.

Principles for clearing native vegetation:

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna.

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

(j) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.