



# Clearing Permit Decision Report

## 1. Application details and outcome

### 1.1. Permit application details

<b>Permit number:</b>	5974/4
<b>Permit type:</b>	Purpose Permit
<b>Applicant name:</b>	Fortescue Metals Group Limited
<b>Application received:</b>	18 December 2023
<b>Application area:</b>	36 hectares
<b>Purpose of clearing:</b>	Mineral exploration
<b>Method of clearing:</b>	Mechanical Removal
<b>Tenure:</b>	Exploration Licence 47/1396
<b>Location (LGA area/s):</b>	Shire of Ashburton
<b>Colloquial name:</b>	Hardey Ridge Prospect

### 1.2. Description of clearing activities

Fortescue Metals Group Limited proposes to clear up to 36 hectares of native vegetation within a boundary of approximately 710 hectares, for the purpose of mineral exploration. The application area is located approximately 66 kilometres northwest of Paraburdoo in the Shire of Ashburton (GIS Database).

Clearing permit CPS 5974/1 was granted by the Department of Mines and Petroleum (now the Department of Energy, Mines, Industry Regulation and Safety) on 6 March 2014 and was valid from 29 March 2014 to 29 March 2019. The permit authorised the clearing of up to 6 hectares of native vegetation within a boundary of approximately 290 hectares, for the purpose of mineral exploration.

CPS 5974/2 was granted on 28 March 2019, amending the permit to extend the duration of the permit by 5 years to 29 March 2024. The area of clearing authorised and the permit boundaries remained unchanged.

CPS 5974/3 was granted on 13 August 2021, amending the permit to increase the amount of clearing authorised from 6 hectares to 36 hectares, increase the permit boundary from 290 to 710 hectares, and amend the permit boundary to exclude areas previously on Exploration Licence 47/2378 (surrendered on 10 July 2019).

On 18 December 2023, the Permit Holder applied to amend CPS 5974/3 to extend the duration of the permit by four years to 28 March 2028.

### 1.3. Decision on application and key considerations

<b>Decision:</b>	Grant
<b>Decision date:</b>	28 March 2024
<b>Decision area:</b>	36 hectares of native vegetation

### 1.4. Reasons for decision

This clearing permit amendment application was made in accordance with section 51KA(1) of the *Environmental Protection Act 1986* (EP Act) and was received by the Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) on 18 December 2023. DEMIRS advertised the application for 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, relevant datasets, supporting information provided by the applicant including the information of a flora and vegetation survey and fauna survey, the clearing principles set out in Schedule 5 of the EP Act, and any other matters considered relevant to the assessment. The assessment identified that the proposed clearing is likely to cause significant negative impact on watercourses, flora and habitat for fauna of the region unless operations follow the conditions placed on the clearing permit to mitigate these impacts.

The Delegated Officer considered the impacts of the proposed clearing are not likely to have any long-term adverse impacts on the environmental values in the application area as long as avoidance and mitigation measures placed on the clearing permit are complied with. The Delegated Officer decided to grant a clearing permit with both standard and non-standard management conditions.

## 2. Assessment of application

### 2.1. Avoidance and mitigation measures

No evidence of avoidance or mitigation measures was provided to support the amendment application. Avoidance and mitigation measures will be placed on the amended clearing permit to manage potential impacts from the proposed clearing.

### 2.2. Assessment of impacts on environmental values

The assessment against the ten clearing principles identified that the native vegetation proposed to be cleared is likely to provide habitat for conservation significant flora and fauna and that the proposed clearing is likely to impact riparian vegetation and surface water quality.

The targeted flora survey (Ecologia, 2022) recorded five Priority flora species within the application area. The details of these records are in Table 1 below.

**Table 1. Summary of Priority flora species recorded in the application area.**

Species	Conservation Status	Vegetation	Individuals recorded	IBRA subregion distribution
<i>Hibiscus</i> sp. Mt Brockman (E. Thoma ET 1354)	P1	<i>Corymbia ferritcola</i> low open woodland; <i>Acacia citrinoviridis</i> , <i>Senna glutinosa</i> tall sparse shrubland; <i>Triodia epactia</i> low sparse hummock grassland.	137	Hamersley (Pilbara)
<i>Pentalepis trichodesmoides</i> subsp. <i>hispidia</i>	P2	<i>Corymbia hamersleyana</i> sparse open woodland; <i>Acacia inaequilatera</i> tall sparse shrubland; <i>Triodia epactia</i> , <i>Triodia wiseana</i> low hummock grassland.	1	Chichester, Hamersley, and Roebourne (Pilbara)
<i>Indigofera rivularis</i>	P3	<i>Eucalyptus camaldulensis</i> and/or <i>Eucalyptus victrix</i> mid open woodland; <i>Acacia citrinoviridis</i> , <i>Acacia synchronicia</i> , <i>Acacia pyrifolia</i> tall open shrubland; <i>Cenchrus ciliaris</i> low sparse tussock grassland.	511	Hamersley (Pilbara)
<i>Sida</i> sp. Hamersley Range (K. Newbey 10692)	P3	<i>Corymbia ferritcola</i> low open woodland; <i>Aristida burbridgeana</i> , <i>Eriachne mucronata</i> low sparse tussock grassland.	8	Hamersley (Pilbara)
<i>Sida</i> sp. Barlee Range (S. van Leeuwen 1642)	P4	<i>Corymbia ferritcola</i> low open woodland; <i>Aristida burbridgeana</i> , <i>Eriachne mucronata</i> low sparse tussock grassland.	1	Ashburton, Chichester, Hamersley, Roebourne (Pilbara), Augustus (Gascoyne)

(Ecologia, 2022)

Based on the number of individuals recorded and/or the widespread distribution of the species, it is unlikely that the proposed amendment would result in a significant impact to *Pentalepis trichodesmoides* subsp. *hispidia* (P2), *Sida* sp. Hamersley Range (K. Newbey 10692) (P3), and *Sida* sp. Barlee Range (S. van Leeuwen 1642) (P4). For the same reasons, it is likely that the proposed amendment would result in a significant impact to *Hibiscus* sp. Mt Brockman (E. Thoma ET 1354) (P1) and *Indigofera rivularis* (P3). Impacts to these Priority flora species from the proposed clearing can be mitigated by a flora management condition to avoid these species and include a 10 metre buffer around them.

The fauna survey (Ecologia, 2022) recorded one Threatened fauna species within the application area, the Pilbara leaf-nosed bat (Vulnerable). This record was located within the Rocky Escarpment habitat type (see Figure 7 within Appendix B). Four other conservation significant species were considered likely to occur. The likelihood of occurrence assessment is shown in the table below.

**Table 2. Post survey likelihood of occurrence assessment for conservation significant fauna.**

Species Name	Common name	BC Status	EPBC Status	Number of records within 40 km	Latest record	Preferred habitat type	Comments	Likelihood of occurrence
<i>Dasyurus hallucatus</i>	Northern quoll	EN	EN	10	2017	Rocky escarpments provide denning and shelter habitats, also known to inhabit riverine habitats and utilise drainage lines for distribution.	Recorded within 1 km of the survey area; however, not recorded during current survey. Potential denning habitat present within the Rocky Escarpment habitat type. May use Drainage Line/River/Creek (major) habitat for dispersal and foraging.	Likely
<i>Macroderma gigas</i>	Ghost bat	VU	VU	3	2012	Rocky habitat for roosting, will forage in all habitat types	Closest record 30 km from survey area, species not recorded during current survey. Potential roosting habitat present within the Rocky Escarpment habitat type. All habitat types within the survey area may be used while foraging.	Likely
<i>Pseudomys chapmani</i>	Western pebble-mound mouse	P4	-	11	2012	Restricted to Pilbara and Gascoyne regions. Occupies stony habitat with hummock grasslands. Constructs large mounds of pebbles on stony slopes, with active mounds characterised by craters.	Closest record 33 km from survey area, species not recorded during current survey. Suitable substrates present within the Lower Slopes/Hillslopes and Plain (stony/gibber) habitat type.	Likely
<i>Rhinonictis aurantia (Pilbara)</i>	Pilbara leaf-nosed bat	VU	VU	12	2017	Restricted to the Pilbara region. Roosts in deep caves and mines with high temperatures and humidity and will forage in all habitat types.	Species recorded at site BAT03 within the Rocky Escarpment habitat type during the current survey. Potential roosting habitat present within the Rocky Escarpment habitat type. All habitat types within the survey area may be used while foraging.	Recorded
<b>Reptiles</b>								
<i>Liasis olivaceus barroni</i>	Pilbara olive python	VU	VU	3	2019	Range restricted to Pilbara region, northern Western Australia and the Dampier Archipelago. Occupies rocky escarpments, gorges and waterholes.	Closest record 35 km from survey area, species not recorded during current survey. Suitable habitat present within the Rocky Escarpment habitat type. May utilise Drainage Line/River/Creek (major) habitat for dispersal.	Likely

(Ecologia, 2022)

Although the northern quoll was not recorded during the current survey, there are eight records of certain secondary evidence of the northern quoll within 250 metres or less of the application area (Ecologia, 2022; GIS Database). Habitat including rocky habitats such as ranges, escarpments, mesas, gorges, breakaways, and major drainage lines which provide shelter for breeding, refuge from fire or predation are considered critical (Commonwealth of Australia 2016). Critical habitat for the northern quoll is present within the Rocky Escarpments habitat type (Ecologia, 2022).

The Pilbara leaf-nosed bat was also recorded within the Rocky Escarpments habitat type, and this habitat is considered to contain potential roosting habitat both the Pilbara leaf-nosed and ghost bat (Ecologia, 2022). Although suitable habitat for the western pebble-mound mouse is present within the Plain (stony/gibber) and Lower Slopes/Hillslopes habitat types, these habitats extend beyond the confines of the survey area and are unlikely to represent critical habitat for this species (Ecologia, 2022).

The application area is adjacent to the Beasley River. This river also intersects the northeastern portion of the application area. There are also several drainage lines over the application area (GIS Database). Where existing creek crossings are not available the proposed clearing will include clearing riparian vegetation for access tracks. Impacts to riparian vegetation not required for access tracks may be minimised by the implementation of a restricted clearing condition.

The targeted flora survey did not record any Threatened flora species (Ecologia, 2022). The application area does not form a part of any known or mapped Threatened or Priority Ecological Community (Ecologia, 2022; GIS Database). At the bioregion (Pilbara) and State level, over 99 per cent of the pre-European vegetation extent remains (Government of Western Australia, 2019). The nearest conservation area is located over 61 kilometres south of the application area and the proposed clearing is not likely to impact on the environmental values of this area (GIS Database). The proposed clearing is not likely to lead to appreciable land degradation or impact, groundwater quality or lead to increase in flooding.

Based on the above assessment, the proposed clearing is at variance with principles (a), (b), and (f), may be at variance to principle (i), is not at variance with principle (e), and is not likely to be at variance with the remaining clearing principles.

The extension of duration requested for this permit is likely to result in significant impacts for the flora, fauna, and water resources of the region unless management measures are implemented. In order to avoid and minimise impacts from the proposed clearing to the previously mentioned environmental values, conditions will be placed on the clearing permit to avoid and minimise clearing, prevent the spread of weeds, avoid clearing riparian vegetation for any other purpose than creating and maintaining access tracks while maintaining water flows, avoiding Priority

flora species with an additional 10 metre buffer, and restricting clearing in areas considered to be critical habitat for the northern quoll and where the Pilbara leaf-nosed bat was recorded. Only the top of the mesas within the Rocky Escarpments habitat will be authorised for clearing to allow access to the targeted areas for the exploration project.

The amendment application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.51O of the *Environmental Protection Act 1986*. Environmental information has been reviewed, and the assessment of the proposed clearing against the clearing principles has changed in comparison with the assessment contained in previous versions of the decision report.

### 2.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 9 January 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 (WCD2015/003 and WCD2017/003) over the area under application (DPLH, 2024). These claims have been determined by the Federal Court on behalf of the claimant groups (Yinhawangka and Puutu Kunti Kurrama and Pinikura). However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance within the application area (DPLH, 2024). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

Other relevant authorisations required for the proposed land use include:

- A Programme of Work 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.

#### A.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia. It is surrounded by the landscape of the Pilbara Bioregion and it is adjacent to the Beasley River (GIS Database).
Ecological linkage	According to aerial imagery, the application area is not located within any formal or informal ecological linkages (GIS Database).
Conservation areas	The application area is not located within any known or mapped conservation area. The closest record is an Unallocated Crown Land with Department Interest located approximately 61 kilometres south of the application area (GIS Database).
Vegetation description	The vegetation of the application area is broadly mapped as the following Beard vegetation associations: 18: Low woodland; mulga ( <i>Acacia aneura</i> ); 82: Hummock grasslands, low tree steppe; snappy gum over <i>Triodia wiseana</i> 567: Hummock grasslands, shrub steppe; mulga & kanji over soft spinifex & <i>Triodia basedowii</i> (GIS Database).  A targeted flora survey was conducted over the application area by Ecologia Environment during March, 2022. However, this survey did not include an assessment of vegetation communities in the application area.
Vegetation condition	The flora and fauna survey (Ecologia, 2022) and aerial imagery indicate the vegetation within the proposed clearing area is in Good to Excellent (Trudgen, 1991) condition.  The full Trudgen (1991) condition rating scale is provided in Appendix A.
Climate and landform	The application area falls within an arid land zone where the annual average rainfall (Paraburdoo Aero) is of 319.1 millimetres (BoM, 2024).
Soil description	The soil within the application area is mapped as soil unit Fa15 (GIS Database). This soil unit is described as ranges of basalt along with shale, chert, jaspilite, and dolomite; some narrow winding

Characteristic	Details
	valley plains. The soils are frequently shallow and there are extensive areas without soil cover: chief soils are shallow stony loams (Northcote et al., 1960-68).
Land systems	The application area is located across the Newman, Robe, and Rocklea land systems (DPIRD, 2024). These land systems are described by Van Vreeswyk et al. (2004) as shown below: <b>Newman land system:</b> Rugged jaspilite plateaux, ridges and mountains supporting hard spinifex grasslands. <b>Robe land system:</b> Low limonite mesas and buttes supporting soft spinifex (and occasionally hard spinifex) grasslands. The system is not generally susceptible to vegetation degradation or erosion. <b>Rocklea land system:</b> Basalt hills, plateaux, lower slopes and minor stony plains supporting hard spinifex (and occasionally soft spinifex) grasslands. The system has very low erosion hazard.
Waterbodies	The desktop assessment and aerial imagery indicated that several minor, non-perennial watercourses cover the area proposed to be cleared. There is also one major non-perennial watercourse (the Beasley River) that transects the application area (GIS Database).
Hydrogeography	The application area falls within the Pilbara Groundwater Area which is legislated by the RIWI Act 1914. The mapped groundwater salinity is of 500-1,000 milligrams per litre total dissolved solids which is describes as marginal (GIS Database).
Flora	The flora survey did not record any Threatened flora species but recorded five Priority flora species within the application area (Ecologia, 2022).
Ecological communities	The application area is not located within any known or mapped Threatened or Priority Ecological Communities. The closest records of a PEC located approximately 60 kilometres north of the application area (GIS Database).
Fauna	The fauna survey recorded one Threatened fauna species, the Pilbara leaf-nosed bat (Vulnerable). Four other species were listed as likely to occur (Ecologia, 2022).
Fauna habitat	A fauna survey was conducted over the application area by Ecologia Environment during March, 2022. The survey recorded the following fauna habitats (Ecologia, 2022): <b>Drainage Line/River/Creek (major):</b> This habitat type encompasses the Beasley River and associated tributaries with large eucalypts over stony substrates within the riverbed. During the survey, no water or major pools were recorded within this habitat type. When inundated, the Beasley River provides seasonal habitat for waterbirds and fish. The Beasley River represents potential dispersal and foraging habitat for the Pilbara olive python, northern quoll, Pilbara leaf-nosed bat and ghost bat. <b>Woodland (open):</b> This habitat encompasses alluvial plains surrounding the Beasley River with <i>Acacia citrinoviridis</i> woodlands over open spinifex hummocks with loamy substrates. Widespread cattle grazing and trampling was recorded within this habitat type during the current survey. Pilbara leaf-nosed bats and ghost bats may utilise this habitat type while foraging. <b>Rocky Escarpments (Ridges/Mesas/Cliffs/Outcrops and Breakaways):</b> Rocky Escarpment habitat within the survey area encompasses rocky ridges and breakaways with caves, boulders and crevices. This habitat type contains scattered eucalypts over spinifex grasslands with rocky substrates. This habitat type is comprised of extensive outcrops and breakaways which provide habitat for the Pilbara olive python, northern quoll (denning habitat), Pilbara leaf-nosed bat (roosting habitat) and ghost bat (roosting habitat). <b>Plain (stony/gibber):</b> Stony plains with scattered eucalypts over <i>Acacia</i> shrubland with a spinifex grassland understorey. This habitat type contains stony substrates suitable for the western pebble-mound mouse. <b>Lower Slopes/Hillslopes:</b> Low rolling hills and lower slopes with some boulders and small breakaways. This habitat type supports scattered eucalypts over scattered shrubs over spinifex grasslands and contains stony substrates suitable for the western pebble-mound mouse. Representative photos are available in Appendix B.

## Appendix A – 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 B – Maps and representative photos of fauna habitat**



**Figure 1. Drainage Line/River/Creek (major) (Ecologia, 2022).**



**Figure 2. Woodland (open) (Ecologia, 2022).**



**Figure 3. Rocky Escarpments (Ridges/Mesas/Cliffs/Outcrops and Breakaways) (Ecologia, 2022).**



**Figure 4. Plain (stony/gibber) (Ecologia, 2022).**



**Figure 5. Lower Slopes/ Hillslopes (Ecologia, 2022).**



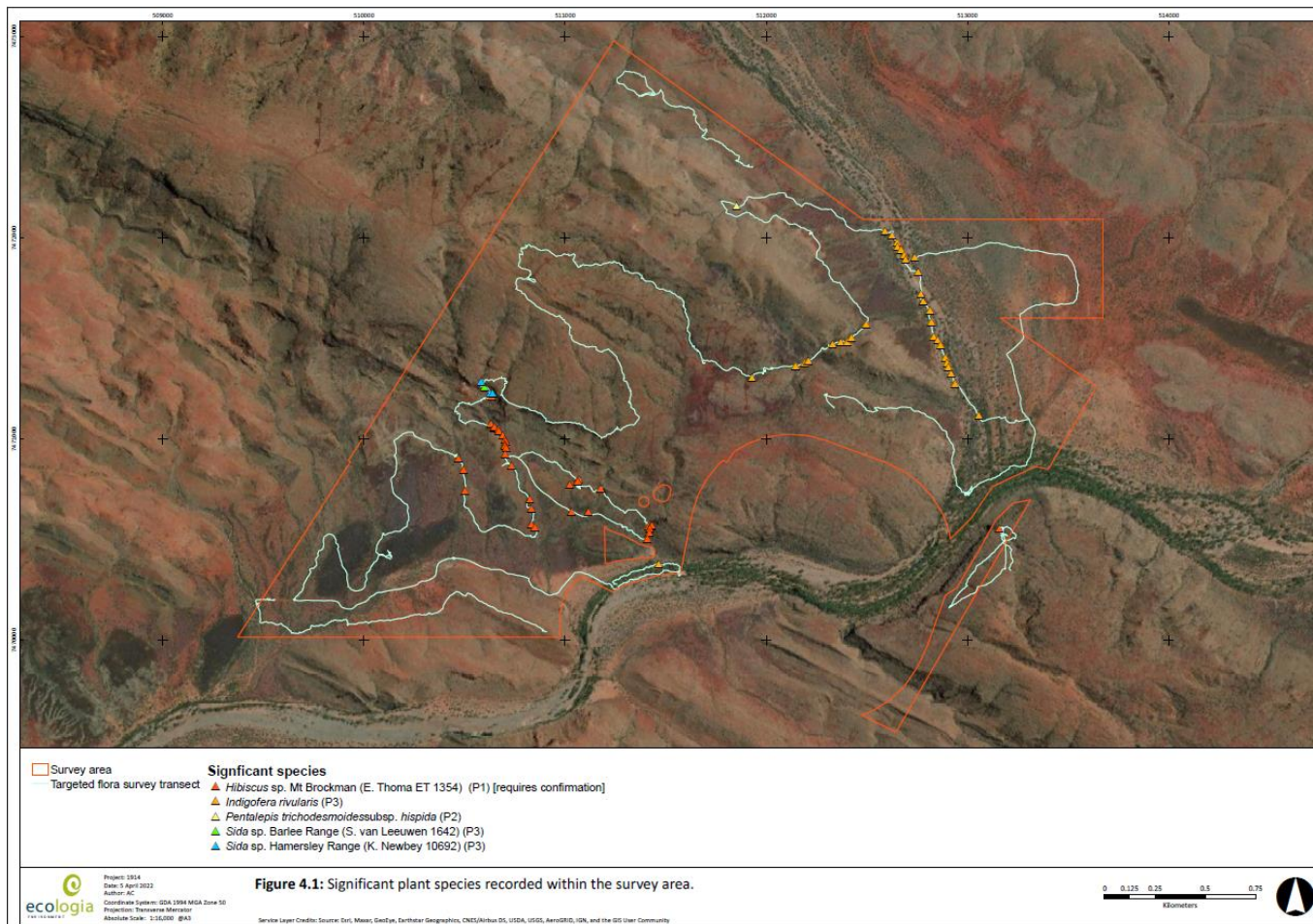
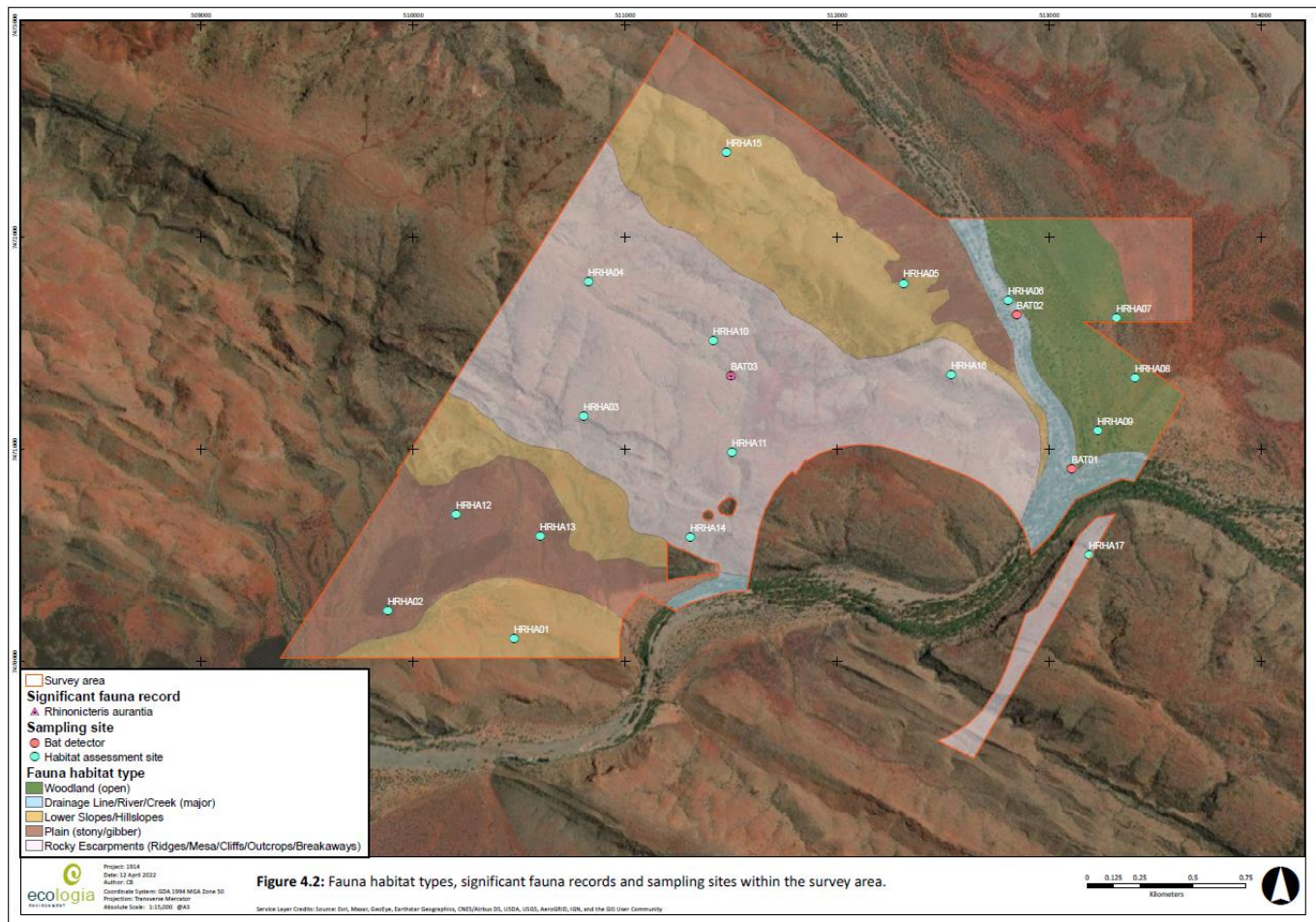


Figure 6. Map of Priority flora in the application area (Ecologia, 2022).



**Figure 7. Map of fauna habitat types and location of Pilbara leaf-nosed bat (Ecologia, 2022).**

## Appendix C - References and databases

### 1. GIS datasets

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

- Aboriginal Heritage Places (DPLH-001)
- Cadastre Address (LGATE-002)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- IBRA Vegetation Statistics
- Regional Parks (DBCA-026)

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) – Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

### 2. References

Bureau of Meteorology (BoM) (2024) Bureau of Meteorology Website – Climate Data Online, Weather Station. Bureau of Meteorology. <http://www.bom.gov.au/climate/data/> (Accessed 12 February 2024).

- Commonwealth of Australia (2016) EPBC Act referral guideline for the endangered northern quoll *Dasyurus hallucatus*. Available from: <https://www.dcceew.gov.au/sites/default/files/documents/referral-guideline-northern-quoll.pdf>
- Department of Planning, Lands and Heritage (DPLH) (2024) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. <https://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS> (Accessed 12 February 2024).
- Department of Primary Industries and Regional Development (DPIRD) (2024) NRInfo Digital Mapping. Department of Primary Industries and Regional Development. Government of Western Australia. URL: <https://dpiird.maps.arcgis.com/apps/webappviewer/index.html?id=662e8cbf2def492381fc915aaf3c6a0f> (Accessed 12 February 2024).
- Ecologia Environment (Ecologia) (2022) Fortescue Metals Group Hardey Ridge Flora and Fauna Assessment. Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68) Atlas of Australian Soils, Sheets 1 to 10, with explanatory data. CSIRO and Melbourne University Press: Melbourne.
- 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.
- Van Vreeswyk, A.M.E., Payne, A.L., Leighton, K.A. and Hennig, P. (2004) An inventory and condition survey of the Pilbara Region, Western Australia. Technical Bulletin No. 92. Department of Agriculture, South Perth, Western Australia.

### 3. Glossary

#### Acronyms:

<b>BC Act</b>	<i>Biodiversity Conservation Act 2016</i> , Western Australia
<b>BoM</b>	Bureau of Meteorology, Australian Government
<b>DAA</b>	Department of Aboriginal Affairs, Western Australia (now DPLH)
<b>DAFWA</b>	Department of Agriculture and Food, Western Australia (now DPIRD)
<b>DAWE</b>	Department of Agriculture, Water and the Environment, Australian Government
<b>DBCA</b>	Department of Biodiversity, Conservation and Attractions, Western Australia
<b>DER</b>	Department of Environment Regulation, Western Australia (now DWER)
<b>DEMIRS</b>	Department of Mines, Industry Regulation and Safety, Western Australia
<b>DMP</b>	Department of Mines and Petroleum, Western Australia (now DEMIRS)
<b>DoEE</b>	Department of the Environment and Energy (now DAWE)
<b>DoW</b>	Department of Water, Western Australia (now DWER)
<b>DPaW</b>	Department of Parks and Wildlife, Western Australia (now DBCA)
<b>DPIRD</b>	Department of Primary Industries and Regional Development, Western Australia
<b>DPLH</b>	Department of Planning, Lands and Heritage, Western Australia
<b>DRF</b>	Declared Rare Flora (now known as Threatened Flora)
<b>DWER</b>	Department of Water and Environmental Regulation, Western Australia
<b>EP Act</b>	<i>Environmental Protection Act 1986</i> , Western Australia
<b>EPA</b>	Environmental Protection Authority, Western Australia
<b>EPBC Act</b>	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Federal Act)
<b>GIS</b>	Geographical Information System
<b>ha</b>	Hectare (10,000 square metres)
<b>IBRA</b>	Interim Biogeographic Regionalisation for Australia
<b>IUCN</b>	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
<b>PEC</b>	Priority Ecological Community, Western Australia
<b>RIWI Act</b>	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
<b>TEC</b>	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.