

Clearing Permit Decision Report

1. Application details and outcome

1.1. Permit application details

Permit number:	8940/2
Permit type:	Purpose Permit
Applicant name:	BHP Iron Ore Pty Ltd
Application received:	30 May 2025
Application area:	40 hectares
Purpose of clearing:	Geotechnical investigations, fibre optic cables and associated activities
Method of clearing:	Mechanical Removal
Tenure:	<i>Iron Ore (Marillana Creek) Agreement Act 1991</i> , Mining Lease M270SA
Location (LGA area/s):	Shire East Pilbara
Colloquial name:	Ministers North Conveyor

1.2. Description of clearing activities

BHP Iron Ore Pty Ltd proposes to clear up to 40 hectares of native vegetation within a boundary of approximately 2,097 hectares, for the purpose of geotechnical investigations, fibre optic cables and associated activities. The project is located approximately 95 kilometres north-west of Newman within the Shire of East Pilbara.

Clearing permit CPS 8940/1 was granted by the Department of Mines, Industry Regulation and Safety (now the Department of Mines, Petroleum and Exploration) on 1 October 2020 and was valid from 24 October 2020 to 30 November 2030. The permit authorised the clearing of up to 40 hectares of native vegetation within a boundary of approximately 2,097 hectares, for the purpose of geotechnical investigations and associated activities.

On 30 May 2025, the permit holder applied to amend CPS 8940/1 to:

- Amending the purpose of the permit to “clearing for the purposes of geotechnical investigations, fibre optic cables and associated activities.”
- Extend the clearing period to 30 November 2030;
- Extend the permit duration to 30 November 2035;
- Update the Permit Holder to BHP Iron Ore Pty Ltd following the removal of “Billiton” from the company name.

The proposed clearing area of 40 hectares within the boundary of 2,097 hectares remains the same. As per condition 12(a) of permit associated with CPS 8940/1, BHP Iron Ore Pty Ltd have reported a total of 3.56 hectares of clearing as of 30 June 2025.

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	25 November 2025
Decision area:	40 hectares of native vegetation

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed, and determined in accordance with sections 51KA(1) and 51O of the *Environmental Protection Act 1986 (EP Act)*. The application was received by The Department of Mines, Petroleum and Exploration (DMPE) on 30 May 2025. DMPE 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 relevant datasets, supporting information provided by the applicant including the results of a flora and vegetation survey, targeted flora 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 also identified that the proposed clearing may result in:

- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values;
- the loss of native vegetation that is suitable habitat with the potential to affect conservation significant fauna; and
- potential impacts to vegetation growing in association with a watercourse.

After reviewing the available information and the applicant's proposed minimisation and mitigation measures, the Delegated Officer concluded that the proposed clearing is unlikely to pose an unacceptable environmental risk, and the assessment of the proposed clearing against the clearing principles remains consistent with the assessment contained in decision report CPS 8940/1.

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

- avoid, minimise to reduce the impacts and extent of clearing;
- take hygiene steps to minimise the risk of the introduction and spread of weeds;
- conduct a pre-clearance survey to identify priority flora species *Ipomoea racemigera* (P2), *Rostellularia adscendens* var. *latifolia* (P3), and *Sida* sp. Barlee Range (S. van Leeuwen 1642) (P4) to prevent clearing of these priority species; or within 10 metres of these species; and
- avoid clearing watercourses where practicable, and ensure surface flows are maintained or reinstated downstream.

2. Assessment of application

2.1. Avoidance and mitigation measures

The proposed area to be cleared has been designed by the applicant to minimise the clearing of vegetation. Avoidance and mitigation measures that the applicant committed to implement are listed below (BHP, 2025):

- clearing kept to the smallest areas required;
- ground disturbance kept to existing disturbed areas where practicable;
- ten metre buffers surrounding identified priority flora populations;
- where practicable existing cleared tracks will be used to cross areas identified as Major Drainage Line habitat;
- active mounds of the Western Pebble-mound Mouse will be avoided using a 10 m buffer, where practicable; and
- if necessary for new crossings to be installed, clearing will be kept to a minimum and will be constructed flat level to the surface (i.e. a simple clearing with no bunds) to maintain the natural surface flow.

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. Additionally, further management conditions have been placed on the clearing permit to mitigate and minimise potential impacts to environmental values.

2.2. Assessment of impacts on environmental values

A review of current environmental information (Appendix B) reveals that the assessment against the clearing principles has not changed from the clearing permit decision report CPS 8940/1. The amendment application has been assessed against the clearing principles, planning instruments and other matters in accordance with sections 51KA(1) and s.51O of the *Environmental Protection Act 1986*. Environmental information has been reviewed, and the assessment of the proposed clearing against the clearing principles remains consistent with the assessment contained in decision report CPS 8940/1.

2.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 10 October 2025 by the Department of Mines, Petroleum and Exploration inviting submissions from the public. No submissions were received in relation to this application.

There is one native title claim (WC2011/006) over the area under application (DPLH, 2025). This claim has been determined by the Federal Court on behalf of the claimant group. However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are 28 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.

The application area exists within the development envelope of the Marillana Creek (Yandi) Life-of-Mine Proposal which was formally assessed by the EPA. Ministerial Statement 679 was published on 6 July 2005 approving the project, and was subsequently amended with Ministerial Statement 1039, published on 4 October 2016. The proposed clearing is in accordance with the requirements of the Ministerial Statements (EPA, 2005; 2016).

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 / Mining Development and Closure Proposal 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.

Appendix A. References and databases

A.1. GIS datasets

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

- Aboriginal Heritage Places (DPLH-001)

- 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)
- EPA Referred Significant Proposals (DWER-120)
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Rivers (DWER-036)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- 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)

Appendix B. Site characteristics

B.1. Site characteristics

Characteristic	Details												
Local context	The area proposed to be cleared is located within the Hamersley subregion of the Interim Biogeographic Region for Australia (IBRA) Pilbara Bioregion (GIS Database) and approximately more than 99% of its vegetation association remains intact.												
Ecological linkage	According to aerial imagery the application area does not form part of any formal or informal ecological linkages (GIS Database).												
Conservation areas	The application area does not form part of any known or mapped conservation areas. The closest DBCA-managed land is the Marillana Pastoral Lease, situated approximately 18 kilometres north of the application area (GIS Database).												
Vegetation description	<p>The vegetation of the application area is broadly mapped as the following Beard vegetation associations:</p> <p>18 Low woodland; mulga (<i>Acacia aneura</i>)</p> <p>82 Hummock grasslands, low tree steppe; snappy gum over <i>Triodia wiseana</i></p> <p>In 2014, Onshore Environmental consolidated previous vegetation mapping projects. Within the application area, seven vegetation associations were identified:</p> <table> <tr> <th>Vegetation Association</th><th>Description</th></tr> <tr> <td>MA AtpAypAse Ecr ThmbTtCyp</td><td>High Shrubland of <i>Acacia tumida</i> var. <i>pilbarensis</i>, <i>Acacia pyrifolia</i> var. <i>pyrifolia</i> and <i>Acacia sericophylla</i> with Scattered Trees of <i>Eucalyptus camaldulensis</i> subsp. <i>refulgens</i> over Open Tussock Grassland of <i>Themeda</i> sp. Mt Barricade (M.E. Trudgen 2471), <i>Themeda triandra</i> and <i>Cymbopogon procerus</i> on brown loam and gravels on major drainage channels.</td></tr> <tr> <td>SA Aa TpTwTb CcChf</td><td>Low Open Forest of <i>Acacia aptaneura</i> over Open Hummock Grassland of <i>Triodia pungens</i>, <i>Triodia wiseana</i> and <i>Triodia basedowii</i> over Open Tussock Grassland of <i>Cenchrus ciliaris</i> and <i>Chrysopogon fallax</i> on red brown sandy loam on sandy plains and undulating low hills.</td></tr> <tr> <td>MI AtpPIAm TpTs ChEII</td><td>Open Scrub of <i>Acacia tumida</i> var. <i>pilbarensis</i>, <i>Petalostylis labicheoides</i> and <i>Acacia monticola</i> over Open Hummock Grassland of <i>Triodia pungens</i> and <i>Triodia</i> sp. Shovelanna Hill (S.van Leeuwen 3835) with Low Open Woodland of <i>Corymbia hamersleyana</i> and <i>Eucalyptus leucophloia</i> subsp. <i>Leucophloia</i> on red brown sandy loam on minor drainage lines.</td></tr> <tr> <td>MI AbAdAma Tp TtPamuEua</td><td>Shrubland of <i>Acacia bivenosa</i>, <i>Acacia dictyophleba</i> and <i>Acacia maitlandii</i> over Open Hummock Grassland of <i>Triodia pungens</i> over Open Tussock Grassland of <i>Themeda triandra</i>, <i>Paraneurachne muelleri</i> and <i>Eulalia aurea</i> on brown sandy loam on minor drainage lines.</td></tr> <tr> <td>MA MaEcrEv MgAcpAtr Cyv</td><td>High Open Forest of <i>Melaleuca argentea</i>, <i>Eucalyptus camaldulensis</i> var. <i>refulgens</i> and <i>Eucalyptus victrix</i> over High Open Shrubland of <i>Melaleuca glomerata</i>, <i>Acacia coriacea</i> subsp. <i>pendens</i> and <i>Acacia trachycarpa</i> over Very Open Sedges of <i>Cyperus vaginatus</i> on alluvial gravelly soils on major drainage channels with seasonal pools.</td></tr> </table>	Vegetation Association	Description	MA AtpAypAse Ecr ThmbTtCyp	High Shrubland of <i>Acacia tumida</i> var. <i>pilbarensis</i> , <i>Acacia pyrifolia</i> var. <i>pyrifolia</i> and <i>Acacia sericophylla</i> with Scattered Trees of <i>Eucalyptus camaldulensis</i> subsp. <i>refulgens</i> over Open Tussock Grassland of <i>Themeda</i> sp. Mt Barricade (M.E. Trudgen 2471), <i>Themeda triandra</i> and <i>Cymbopogon procerus</i> on brown loam and gravels on major drainage channels.	SA Aa TpTwTb CcChf	Low Open Forest of <i>Acacia aptaneura</i> over Open Hummock Grassland of <i>Triodia pungens</i> , <i>Triodia wiseana</i> and <i>Triodia basedowii</i> over Open Tussock Grassland of <i>Cenchrus ciliaris</i> and <i>Chrysopogon fallax</i> on red brown sandy loam on sandy plains and undulating low hills.	MI AtpPIAm TpTs ChEII	Open Scrub of <i>Acacia tumida</i> var. <i>pilbarensis</i> , <i>Petalostylis labicheoides</i> and <i>Acacia monticola</i> over Open Hummock Grassland of <i>Triodia pungens</i> and <i>Triodia</i> sp. Shovelanna Hill (S.van Leeuwen 3835) with Low Open Woodland of <i>Corymbia hamersleyana</i> and <i>Eucalyptus leucophloia</i> subsp. <i>Leucophloia</i> on red brown sandy loam on minor drainage lines.	MI AbAdAma Tp TtPamuEua	Shrubland of <i>Acacia bivenosa</i> , <i>Acacia dictyophleba</i> and <i>Acacia maitlandii</i> over Open Hummock Grassland of <i>Triodia pungens</i> over Open Tussock Grassland of <i>Themeda triandra</i> , <i>Paraneurachne muelleri</i> and <i>Eulalia aurea</i> on brown sandy loam on minor drainage lines.	MA MaEcrEv MgAcpAtr Cyv	High Open Forest of <i>Melaleuca argentea</i> , <i>Eucalyptus camaldulensis</i> var. <i>refulgens</i> and <i>Eucalyptus victrix</i> over High Open Shrubland of <i>Melaleuca glomerata</i> , <i>Acacia coriacea</i> subsp. <i>pendens</i> and <i>Acacia trachycarpa</i> over Very Open Sedges of <i>Cyperus vaginatus</i> on alluvial gravelly soils on major drainage channels with seasonal pools.
Vegetation Association	Description												
MA AtpAypAse Ecr ThmbTtCyp	High Shrubland of <i>Acacia tumida</i> var. <i>pilbarensis</i> , <i>Acacia pyrifolia</i> var. <i>pyrifolia</i> and <i>Acacia sericophylla</i> with Scattered Trees of <i>Eucalyptus camaldulensis</i> subsp. <i>refulgens</i> over Open Tussock Grassland of <i>Themeda</i> sp. Mt Barricade (M.E. Trudgen 2471), <i>Themeda triandra</i> and <i>Cymbopogon procerus</i> on brown loam and gravels on major drainage channels.												
SA Aa TpTwTb CcChf	Low Open Forest of <i>Acacia aptaneura</i> over Open Hummock Grassland of <i>Triodia pungens</i> , <i>Triodia wiseana</i> and <i>Triodia basedowii</i> over Open Tussock Grassland of <i>Cenchrus ciliaris</i> and <i>Chrysopogon fallax</i> on red brown sandy loam on sandy plains and undulating low hills.												
MI AtpPIAm TpTs ChEII	Open Scrub of <i>Acacia tumida</i> var. <i>pilbarensis</i> , <i>Petalostylis labicheoides</i> and <i>Acacia monticola</i> over Open Hummock Grassland of <i>Triodia pungens</i> and <i>Triodia</i> sp. Shovelanna Hill (S.van Leeuwen 3835) with Low Open Woodland of <i>Corymbia hamersleyana</i> and <i>Eucalyptus leucophloia</i> subsp. <i>Leucophloia</i> on red brown sandy loam on minor drainage lines.												
MI AbAdAma Tp TtPamuEua	Shrubland of <i>Acacia bivenosa</i> , <i>Acacia dictyophleba</i> and <i>Acacia maitlandii</i> over Open Hummock Grassland of <i>Triodia pungens</i> over Open Tussock Grassland of <i>Themeda triandra</i> , <i>Paraneurachne muelleri</i> and <i>Eulalia aurea</i> on brown sandy loam on minor drainage lines.												
MA MaEcrEv MgAcpAtr Cyv	High Open Forest of <i>Melaleuca argentea</i> , <i>Eucalyptus camaldulensis</i> var. <i>refulgens</i> and <i>Eucalyptus victrix</i> over High Open Shrubland of <i>Melaleuca glomerata</i> , <i>Acacia coriacea</i> subsp. <i>pendens</i> and <i>Acacia trachycarpa</i> over Very Open Sedges of <i>Cyperus vaginatus</i> on alluvial gravelly soils on major drainage channels with seasonal pools.												

Characteristic	Details									
	GG TtErmuThmb EIChCf AtpGoroPI	Tussock Grassland of <i>Themeda triandra</i> , <i>Eriachne mucronata</i> and <i>Themeda</i> sp. Mt Barricade with Low Open Woodland of <i>Eucalyptus leucophloia</i> subsp. <i>leucophloia</i> , <i>Corymbia hamersleyana</i> and <i>Corymbia ferritcola</i> over High Shrubland of <i>Acacia tumida</i> var. <i>pilbarensis</i> , <i>Gossypium robinsonii</i> and <i>Petalostylis labicheoides</i> on red brown sandy loam in narrowly incised rocky drainage lines.								
	FS TsTpTw EI AbApaAanc	Hummock Grassland of <i>Triodia</i> sp. Shovelanna Hill (S. van Leeuwen 3835), <i>Triodia pungens</i> and <i>Triodia wiseana</i> with Low Open Woodland of <i>Eucalyptus leucophloia</i> subsp. <i>leucophloia</i> and Open Shrubland of <i>Acacia bivenosa</i> , <i>Acacia pachyacra</i> and <i>Acacia ancistrocarpa</i> on red brown loam on footslopes and low undulating hills								
	HC Tw AiAb InrSeao	Hummock Grassland of <i>Triodia wiseana</i> with High Open Shrubland of <i>Acacia inaequilatera</i> and <i>Acacia bivenosa</i> over Low Open Shrubland of <i>Indigofera rugosa</i> and <i>Senna artemisioides</i> subsp. <i>oligophylla</i> on red silty loam on dolerite hill crests.								
	HC TwTbrTp EICh AmaGrwhAb	Hummock Grassland of <i>Triodia wiseana</i> , <i>Triodia brizoides</i> and <i>Triodia pungens</i> with Low Open Woodland of <i>Eucalyptus leucophloia</i> subsp. <i>leucophloia</i> and <i>Corymbia hamersleyana</i> over High Open Shrubland of <i>Acacia maitlandii</i> , <i>Grevillea wickhamii</i> subsp. <i>hispidula</i> and <i>Acacia bivenosa</i> on red brown sandy loam on hill crests and upper hill slopes.								
	HS TeTw Ch AiAan	Hummock Grassland of <i>Triodia epactia</i> and <i>Triodia wiseana</i> with Low Open Woodland of <i>Corymbia hamersleyana</i> over High Open Shrubland of <i>Acacia inaequilatera</i> and <i>Acacia ancistrocarpa</i> on red brown sandy loam on granite and quartz hill slopes and footslopes.								
	HS TsTwTp EICh AhiAaa	Hummock Grassland of <i>Triodia</i> sp. Shovelanna Hill (S. van Leeuwen 3835), <i>Triodia wiseana</i> and <i>Triodia pungens</i> with Low Open Woodland of <i>Eucalyptus leucophloia</i> subsp. <i>Leucophloia</i> and <i>Corymbia hamersleyana</i> over Low Open Shrubland of <i>Acacia hilliana</i> and <i>Acacia adoxa</i> var. <i>adoxo</i> on red brown sandy loam on hill slopes								
	HS TwTbr Ai Inr	Hummock Grassland of <i>Triodia wiseana</i> and <i>Triodia brizoides</i> with High Open Shrubland of <i>Acacia inaequilatera</i> and Low Open Shrubland of <i>Indigofera rugosa</i> on brown sandy loam on dolerite hillslopes.								
	ME TpTlo ExAciCh PIApypGoro	Hummock Grassland of <i>Triodia pungens</i> and <i>Triodia longiceps</i> with Low Woodland of <i>Eucalyptus xerothermica</i> , <i>Acacia citrinoviridis</i> and <i>Corymbia hamersleyana</i> over High Shrubland of <i>Petalostylis labicheoides</i> , <i>Acacia pyrifolia</i> var. <i>pyrifolia</i> and <i>Gossypium robinsonii</i> on red brown clay loam on medium drainage lines and surrounding floodplains								
	SP TbTp HIAancAi Ch	Hummock Grassland of <i>Triodia basedowii</i> and <i>Triodia pungens</i> with High Open Shrubland of <i>Hakea lorea</i> subsp. <i>lorea</i> , <i>Acacia ancistrocarpa</i> and <i>Acacia inaequilatera</i> and Scattered Low Trees of <i>Corymbia hamersleyana</i> on red brown loamy sand on stony plains.								
Vegetation condition	The vegetation survey and aerial imagery indicate most of the vegetation within the application area is rated as ‘Excellent’ to ‘Completely Degraded’ (Onshore Environmental, 2014; GIS Database).									
Climate and landform	The application area is located in an arid to semi-arid zone with an annual average rainfall of 327.5 millimetres recorded at Newman Aero meteorological site (007176). This station is the closest Bureau of Meteorology (BoM) station to the application area.									
Soil description	The soil found in the application area is mapped as (DPIRD, 2025): <table><tr><th>Soil system</th><th>Description</th></tr><tr><td>McKay system</td><td>Hills, ridges, plateaux remnants and breakaways of meta sedimentary and sedimentary rocks supporting hard spinifex grasslands with acacias and occasional eucalypts</td></tr><tr><td>Robe system</td><td>Low plateaux, mesas and buttes of limonite supporting soft spinifex and occasionally hard spinifex grasslands</td></tr><tr><td>Boolgeeda system</td><td>Stony lower slopes and plains below hill systems supporting hard and soft spinifex grasslands or mulga shrublands</td></tr></table>		Soil system	Description	McKay system	Hills, ridges, plateaux remnants and breakaways of meta sedimentary and sedimentary rocks supporting hard spinifex grasslands with acacias and occasional eucalypts	Robe system	Low plateaux, mesas and buttes of limonite supporting soft spinifex and occasionally hard spinifex grasslands	Boolgeeda system	Stony lower slopes and plains below hill systems supporting hard and soft spinifex grasslands or mulga shrublands
Soil system	Description									
McKay system	Hills, ridges, plateaux remnants and breakaways of meta sedimentary and sedimentary rocks supporting hard spinifex grasslands with acacias and occasional eucalypts									
Robe system	Low plateaux, mesas and buttes of limonite supporting soft spinifex and occasionally hard spinifex grasslands									
Boolgeeda system	Stony lower slopes and plains below hill systems supporting hard and soft spinifex grasslands or mulga shrublands									
Land degradation risk	The land and soil systems within the application area are not generally susceptible to erosion (Van Vreeswyk et al., 2004).									

Characteristic	Details												
Waterbodies	There are no permanent watercourses or wetlands within the application area, however one major, non-perennial water course (Marillana Creek) and a number of additional drainage lines dissect the application area (GIS Database).												
Hydrogeography	The application area is not located within any Surface Water Areas (GIS Database). GIS Database records indicate that the application area is located within the Pilbara Groundwater Area. According to BHP (2025), one main aquifer is found within the application area – the Hamersley – Fractured Rock Aquifer. The mapped groundwater salinity is 500 to 1,000 milligrams per litre total dissolved solids which is described as fresh to brackish water (GIS Database).												
Flora	Two Priority flora species were found within the application area. One Priority Two flora species <i>Ipomoea racemigera</i> , and one Priority three flora species, <i>Rostellularia adscendens</i> var. <i>latifolia</i> (BHP, 2025).												
Ecological communities	No Threatened or Priority Ecological communities have been recorded within the application area (GIS Database). The nearest Threatened Ecological Community is Weeli Wolli Spring Community situated nine kilometres in a southeast direction of the application area. The Fortescue Marsh found 26 kilometres in a northeast direction and Coolibah - Lignum Flats, sub type 2 which is situated 30 kilometres in a southwest direction of the application area.												
Fauna	<p>The Western Pebble-mound Mouse, a priority fauna species, has been recorded within the application area (BHP, 2024; Biologic, 2014).</p> <p>Three species of conservation significance fauna species are considered to potentially occur within the application area, specifically associated with the drainage and floodplain habitat type (BHP, 2024).</p> <ul style="list-style-type: none"> Fork-tailed Swift (<i>Apus pacificus</i>) (Migratory) Northern Quoll (<i>Dasyurus hallucatus</i>) (Endangered); and Pilbara Olive Python (<i>Liasis olivaceus barroni</i>) (Vulnerable) <p>Biologic (2014), recorded both the northern quoll and Pilbara olive python adjacent to the application area.</p>												
Fauna habitat	<p>Broad scale terrestrial fauna habitats within the survey area described by BHP (2025) are listed below:</p> <table> <tr> <th>Fauna Habitat</th><th>Description</th></tr> <tr> <td>Drainage Area / Floodplain:</td><td>Characterised by <i>Eucalyptus xerothermica</i> and <i>Corymbia hamersleyana</i> woodland over broad-leafed <i>Acacia</i> shrubland on sandy loam soils sometimes with exposed rocky areas. These can have high vegetation density, complexity and diversity, and because they tend to occur on accretional or depositional areas, often have deeper and richer soils than other fauna habitats. Grasses tend to be dominated by tussock grasses rather than spinifex, or the weed Buffel Grass *<i>Cenchrus ciliaris</i>.</td></tr> <tr> <td>Hillcrest / Hill slope:</td><td>These fauna habitats tend to be more open and structurally simple due to their recent depositional history than other fauna habitats, and are dominated by varying species of spinifex. A common feature of these habitats is a rocky substrate, often with exposed bedrock, and skeletal red soils. These are usually dominated by <i>Eucalyptus</i> woodlands, <i>Acacia</i> and <i>Grevillea</i> scrublands and <i>Triodia</i> spp. low hummock grasslands.</td></tr> <tr> <td>Minor Drainage Line:</td><td>Located within the minor gullies and depressions, generally through the Crest/Slope habitat. Consists primarily of <i>Acacia</i> low shrubland. The understorey generally lacks density and often consists solely of sparse tussock grassland, often including the weed Buffel Grass *<i>Cenchrus ciliaris</i> where it has been introduced. The substrate can be sandy in places but generally consists of a skeletal loam gravel or stone.</td></tr> <tr> <td>Major Drainage Line:</td><td>Major Drainage Lines comprise mature River Red Gums, Coolibahs and stands of Silver Cadjeput over river pools. Open, sandy or gravelly riverbeds characterise this habitat type. In ungrazed areas, the vegetation adjacent to the main channel or channels is denser, taller and more diverse than adjacent terrain and can include reedbeds around pools.</td></tr> <tr> <td>Mulga Woodland:</td><td>This habitat includes woodlands and other ecosystems in which Mulga (<i>Acacia aneura</i>) is dominant, either as the principal <i>Acacia</i> species or mixed with others. It consists of disintegrating groves on stony soils with spinifex. This habitat type is grouped with other habitat</td></tr> </table>	Fauna Habitat	Description	Drainage Area / Floodplain:	Characterised by <i>Eucalyptus xerothermica</i> and <i>Corymbia hamersleyana</i> woodland over broad-leafed <i>Acacia</i> shrubland on sandy loam soils sometimes with exposed rocky areas. These can have high vegetation density, complexity and diversity, and because they tend to occur on accretional or depositional areas, often have deeper and richer soils than other fauna habitats. Grasses tend to be dominated by tussock grasses rather than spinifex, or the weed Buffel Grass * <i>Cenchrus ciliaris</i> .	Hillcrest / Hill slope:	These fauna habitats tend to be more open and structurally simple due to their recent depositional history than other fauna habitats, and are dominated by varying species of spinifex. A common feature of these habitats is a rocky substrate, often with exposed bedrock, and skeletal red soils. These are usually dominated by <i>Eucalyptus</i> woodlands, <i>Acacia</i> and <i>Grevillea</i> scrublands and <i>Triodia</i> spp. low hummock grasslands.	Minor Drainage Line:	Located within the minor gullies and depressions, generally through the Crest/Slope habitat. Consists primarily of <i>Acacia</i> low shrubland. The understorey generally lacks density and often consists solely of sparse tussock grassland, often including the weed Buffel Grass * <i>Cenchrus ciliaris</i> where it has been introduced. The substrate can be sandy in places but generally consists of a skeletal loam gravel or stone.	Major Drainage Line:	Major Drainage Lines comprise mature River Red Gums, Coolibahs and stands of Silver Cadjeput over river pools. Open, sandy or gravelly riverbeds characterise this habitat type. In ungrazed areas, the vegetation adjacent to the main channel or channels is denser, taller and more diverse than adjacent terrain and can include reedbeds around pools.	Mulga Woodland:	This habitat includes woodlands and other ecosystems in which Mulga (<i>Acacia aneura</i>) is dominant, either as the principal <i>Acacia</i> species or mixed with others. It consists of disintegrating groves on stony soils with spinifex. This habitat type is grouped with other habitat
Fauna Habitat	Description												
Drainage Area / Floodplain:	Characterised by <i>Eucalyptus xerothermica</i> and <i>Corymbia hamersleyana</i> woodland over broad-leafed <i>Acacia</i> shrubland on sandy loam soils sometimes with exposed rocky areas. These can have high vegetation density, complexity and diversity, and because they tend to occur on accretional or depositional areas, often have deeper and richer soils than other fauna habitats. Grasses tend to be dominated by tussock grasses rather than spinifex, or the weed Buffel Grass * <i>Cenchrus ciliaris</i> .												
Hillcrest / Hill slope:	These fauna habitats tend to be more open and structurally simple due to their recent depositional history than other fauna habitats, and are dominated by varying species of spinifex. A common feature of these habitats is a rocky substrate, often with exposed bedrock, and skeletal red soils. These are usually dominated by <i>Eucalyptus</i> woodlands, <i>Acacia</i> and <i>Grevillea</i> scrublands and <i>Triodia</i> spp. low hummock grasslands.												
Minor Drainage Line:	Located within the minor gullies and depressions, generally through the Crest/Slope habitat. Consists primarily of <i>Acacia</i> low shrubland. The understorey generally lacks density and often consists solely of sparse tussock grassland, often including the weed Buffel Grass * <i>Cenchrus ciliaris</i> where it has been introduced. The substrate can be sandy in places but generally consists of a skeletal loam gravel or stone.												
Major Drainage Line:	Major Drainage Lines comprise mature River Red Gums, Coolibahs and stands of Silver Cadjeput over river pools. Open, sandy or gravelly riverbeds characterise this habitat type. In ungrazed areas, the vegetation adjacent to the main channel or channels is denser, taller and more diverse than adjacent terrain and can include reedbeds around pools.												
Mulga Woodland:	This habitat includes woodlands and other ecosystems in which Mulga (<i>Acacia aneura</i>) is dominant, either as the principal <i>Acacia</i> species or mixed with others. It consists of disintegrating groves on stony soils with spinifex. This habitat type is grouped with other habitat												

Characteristic	Details	
		occurring on the plains; however, it is noted that small groves of Mulga occur on ridgelines.
	Sand Plain:	Sand Plain habitat is characterised by relatively deep sandy soils supporting dense spinifex grasslands and sparse shrubs. This habitat transitions into patches of Mulga in places. This habitat often occurs as terraces along Major Drainage Lines.

A.2. References

- Biologic (2014) Consolidation of Regional Fauna Habitat Mapping. BHP Billiton Iron Ore Pilbara Tenure. BHP Billiton Iron Ore, May 2014.
- BHP (2025) Application to amend NVCP CPS 8940/1 Ministers North Conveyor Geotechnical Investigations. Native Vegetation Clearing Permit Amendment, Application Supporting Document, by BHP Iron Ore Pty Ltd, May 2025.
- Bureau of Meteorology (BoM) (2025) Bureau of Meteorology Website – Climate Data Online, Weather Station. Bureau of Meteorology. <https://reg.bom.gov.au/climate/data/> (Accessed 24 November 2025).
- Department of Primary Industries and Regional Development (DPIRD) (2025) NRInfo Digital Mapping. Department of Primary Industries and Regional Development. Government of Western Australia. <https://dpiird.maps.arcgis.com/apps/webappviewer/index.html?id=662e8cbf2def492381fc915aaf3c6a0f> (Accessed 25 November 2025).
- Department of Planning, Lands and Heritage (DPLH) (2025) Aboriginal Cultural Heritage Inquiry System. Department of Planning, Lands and Heritage. <https://espatial.dplh.wa.gov.au/ACHIS/index.html?viewer=ACHIS> (Accessed 28 October 2025).
- EPA (2005) Statement that a proposal may be implemented (pursuant to the provisions of the Environmental Protection Act 1986). Statement No. 679 – Marillana Creek (Yandi) Life-of-Mine Proposal, Mining Leases 270SA 47/292, 90 km North-West of Newman, Shire of East Pilbara. Environmental Protection Authority, 06 July 2005.
- EPA (2016) Statement to change the implementation conditions applying to a proposal (Section 46 of the Environmental Protection Act 1986). Statement No. 1039 – Marillana Creek (Yandi) Life-of-Mine Proposal, Mining Leases 270SA 47/292, 90 km North-West of Newman, Shire of East Pilbara. Environmental Protection Authority, 04 October 2016.
- Onshore Environmental (2014) Consolidation of Regional Vegetation Mapping. BHP Billiton Iron Ore Pilbara Tenure, Prepared for BHP Billiton Iron Ore Pty Ltd, June 2014.
- 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:

BC Act	<i>Biodiversity Conservation Act 2016</i> , 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 (now DMPE)
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia (now DMPE)
DMP	Department of Mines and Petroleum, Western Australia (now DMPE)
DMPE	Department of Mines, Petroleum and Exploration
DoEE	Department of the Environment and Energy (now DCCEEW)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora (now known as Threatened Flora)
DWER	Department of Water and Environmental Regulation, Western Australia
EP Act	<i>Environmental Protection Act 1986</i> , Western Australia
EPA	Environmental Protection Authority, Western Australia
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth 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	<i>Rights in Water and Irrigation Act 1914</i> , 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:

Threatened species

T 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

Listed by order of the Minister as extinct under section 23(1) of the BC Act as extinct or extinct in the wild.

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

SP 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.

Priority species

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.