

1. Application details and outcomes

1.1. Permit application details

Permit number:	8716/2
Permit type:	Purpose Permit
Applicant name:	Fortescue Metals Group Ltd
Application received:	23 August 2024
Application area:	114 hectares
Purpose of clearing:	Power infrastructure and associated activities
Method of clearing:	Mechanical Removal
Tenure:	Miscellaneous Licences 45/456; 45/458; 45/460; 45/462; 45/468; 45/471; 45/472; 45/474; 45/475; 47/848; and 47/859
Location (LGA areas):	Shire of Ashburton; Shire of East Pilbara; and Town of Port Hedland
Colloquial name:	Pilbara Transmission Project – Stage 1

1.2. Description of clearing activities

Fortescue Metals Group Ltd proposes to clear up to 114 hectares of native vegetation within a boundary of approximately 1,674 hectares, for the purpose of power infrastructure and associated activities (FMG, 2024). The project is approximately 375 kilometres in length extending from Fortescue's iron ore mining to port operations in Pilbara, within the Shire of Ashburton, Shire of East Pilbara, and Town of Port Hedland (GIS Database). The total cumulative area of land cleared under this permit to date is approximately 59.84 hectares (Fortescue Ltd, 2024). The remainder of the clearing associated with the Pilbara Transmission Project – stage 1 is located within Miscellaneous Licence 45/456 (Fortescue Ltd, 2025).

This application is to allow for the completion of construction of infrastructure (FMG, 2024). Infrastructure includes 10 by 10 metre pole pad, lay down areas and vehicle access tracks (FMG, 2019). The project utilises previously disturbed areas associated with Fortescue's rail infrastructure corridor with approximately 92 hectares consisting of targeted removal and pruning of tall vegetation over five metres (FMG, 2019).

Clearing permit CPS 8716/1 was granted by the Department of Mines, Industry Regulation and Safety (now the Department of Energy, Mines, Industry Regulation and Safety) on 12 December 2019 and was valid from 4 January 2020 to 31 January 2025. The permit authorised the clearing of up to 114 hectares of native vegetation within a boundary of approximately 1,674 hectares, for the purpose of power infrastructure and associated activities.

On 23 August 2024, the Permit Holder applied to amend CPS 8716/2 to extend the duration of the permit by 5 years.

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	30 January 2025
Decision area:	114 hectares of native vegetation

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed, and determined in accordance with sections 51O and 51KA(1) 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, 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;

- potential impacts to conservation significant flora;
- potential impacts to adjacent priority ecological communities;
- potential impacts to conservation significant fauna and associated habitat; and
- potential land degradation in the form of erosion.

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

The 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;
- undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity; and
- commence construction no later than three months after undertaking clearing to reduce the risk of erosion.

The assessment has not changed since the assessment for CPS 8716/1, except for principle (b) that has accounted for potential local impacts and recent records of conservation significant fauna. The Delegated Officer determined that the proposed extension of duration is not likely to lead to an unacceptable risk to environmental values.

2. Legislative context

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

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

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

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Biosecurity and Agriculture Management Act 2007* (BAM Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Mining Act 1978* (WA)
- *Rights in Water and Irrigation Act 1914* (RIWI Act)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2014)
- *Procedure: Native vegetation clearing permits* (DWER, October 2021)

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

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. The project utilises previously disturbed areas associated with the adjacent rail infrastructure, where possible (FMG, 2019). Internal buffers of 50 metres surrounding conservation significant fauna have been applied by Fortescue Metals Group Ltd and are avoided, where possible (Fortescue Ltd, 2025; FMG, 2019).

3.2. Assessment of impacts on environmental values

A review of current environmental information (Appendix A) reveals that the assessment against the clearing principles has not changed significantly from the Clearing Permit Decision Report CPS 8716/1, except for principle (b) that has accounted for potential local impacts and recent records of conservation significant fauna.

3.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 19 November 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 seven native title claims over the area under application (DPLH, 2025). These claims have been determined by the Federal Court on behalf of the claimant groups (Banjima People, Nyiyaparli People, Palyku People, Palyku Part A, Kariyarra People, Kariyarra – Abydos, Yindjibarndi #1). 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 46 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 Pilbara Transmission Project (CMS17515) was referred to the Environmental Protection Authority (EPA) on 26 November 2018. On 28 February 2019, the EPA decided under Section 39A of the *Environmental Protection Act 1986* not to assess the project.

The Pilbara Transmission Project (2018/8349) was referred to the Commonwealth Department of Environment and Energy (now Department of Climate Change, Energy, Energy, Environment and Water) on 30 November 2018. On 2 April 2019, The Commonwealth Department of Environment and Energy decided under Section 75 of the *Environmental Protection and Biodiversity Conservation Act 1999* the proposed action is not a controlled action.

Other relevant authorisations required for the proposed land use include:

- A Mining 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.

End

Appendix A. Site characteristics

A.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia, adjacent the Fortescue rail line (GIS Database). The predominant land use in the region is Aboriginal lands and Reserves, Unallocated Crown Land, Crown Reserves, grazing of native pastures, conservation and mining activity (CALM, 2002).
Ecological linkage and conservation areas	<p>According to available databases, the application area does not contain any known or mapped ecological linkages (GIS Database).</p> <p>There are no conservation areas within the application area (GIS Database). Three conservation areas occur within 50 kilometres of the application area:</p> <ul style="list-style-type: none"> • Fortescue Marsh Nature Reserve (approximately 6 kilometres), • Karijini National Park (approximately 8 kilometres), and • Mungaroona Range Nature Reserve (approximately 4 kilometres) (GIS Database).
Vegetation description and condition	<p>The application area occurs within the Chichester (PIL01), Fortescue (PIL02) and Roebourne (PIL04) subregions of the Pilbara bioregion (GIS Database). The application area is broadly mapped as eleven Beard Vegetation associations: 11, 29, 82, 93, 173, 175, 562, 589, 619, 626 and 647 (GIS Database). There are 97 vegetation types that have been described within the application area (detailed in Decision Report CPS 8716/1).</p> <p>The vegetation condition was derived from vegetation surveys amalgamated by Ecoscape (2018) and aerial imagery indicating the vegetation within the proposed clearing area is in Excellent to Degraded condition (GIS Database). Approximately 730 hectares within the application area has previously been disturbed associated with rail line and rail access tracks (FMG, 2019). The full Trudgen (1991) condition rating scale is provided in Appendix C.</p>
Climate and landform	<p>Chichester and Fortescue: The climate of the region is semi-desert-tropical Mediterranean, with an annual average rainfall of approximately 461.8 millimetres recorded at Wittenoom (BoM, 2025; CALM, 2002).</p> <p>Roebourne: The climate of the region is arid (semi-desert) tropical with an annual average rainfall of approximately 314.2 millimetres recorded at Port Hedland Airport (BoM, 2025; CALM, 2002).</p> <p>The application area is mapped within elevations ranging between 150-490 metres Australian Height Datum (AHD) with lower elevations (10-20 metres AHD) occurring near Port Hedland (GIS Database).</p>
Soil description and land degradation risk	<p>The soil is mapped within 24 land systems (Van Vreeswyk <i>et al.</i>, 2004; GIS Database):</p> <ul style="list-style-type: none"> • Bonney: low rounded hills and undulating stony plains supporting soft spinifex grasslands. • Boolaloo: granite hills, domes and tor fields and sandy plains with shrubby spinifex grasslands. • Boolgeeda: Stony lower slopes and plains below hill systems supporting hard and soft spinifex grasslands and mulga shrublands. • Brockman: alluvial plains with cracking clay soils supporting tussock grasslands. • Calcrete: low calcrete platforms and plains supporting shrubby hard spinifex grasslands. • Capricorn: hills and ridges of sandstone and dolomite supporting shrubby hard and soft spinifex grasslands. • Coolibah: flood plains with weakly gilgaied clay soils supporting coolibah woodlands with tussock grass understorey. • Granitic: rugged granitic hills supporting shrubby hard and soft spinifex grasslands. • Hooley: alluvial clay plains supporting a mosaic of snakewood shrublands and tussock grasslands. • Jamindle: stony hardpan plains and rises supporting groved mulga shrublands, occasionally with spinifex understorey. • Jurrawarrin: hardpan plains and alluvial tracts supporting mulga shrublands with tussock and spinifex grasses. • Macroy: stony plains and occasional tor fields based on granite supporting hard and soft spinifex grasslands. • Mallina: sandy surfaced alluvial plains supporting soft spinifex (and occasionally hard spinifex) grasslands. • Mckay: hills, ridges, plateaux remnants and breakaways of meta sedimentary and sedimentary rocks supporting hard spinifex grasslands. • Newman: rugged jaspilite plateaux, ridges and mountains supporting hard spinifex grasslands. • Oakover: breakaways, mesas, plateaux and stony plains of calcrete supporting hard spinifex grasslands. • River: active flood plains and major rivers supporting grassy eucalypt woodlands, tussock grasslands and soft spinifex grasslands.

	<ul style="list-style-type: none"> • Robe: low limonite mesas and buttes supporting soft spinifex (and occasionally hard spinifex) grasslands. • Rocklea: basalt hills, plateaux, lower slopes and minor stony plains supporting hard spinifex (and occasionally soft spinifex) grasslands. • Talga: hills and ridges of greenstone and chert and stony plains supporting hard and soft spinifex grasslands. • Uaroo: broad sandy plains supporting shrubby hard and soft spinifex grasslands. • Urandy: stony plains, alluvial plains and drainage lines supporting shrubby soft spinifex grasslands. • White Springs: Stony gilgai plains supporting tussock grasslands and hard spinifex grasslands. • Wona: basalt upland gilgai plains supporting tussock grasslands and minor hard spinifex grasslands. <p>Majority of the land systems are generally not susceptible to erosion, except for the Jamindie, Mallina and River land systems (Van Vreeswyk <i>et al.</i>, 2004).</p>
Waterbodies and hydrogeography	<p>The desktop assessment and aerial imagery indicated that no permanent watercourses occur within the application area, however numerous ephemeral watercourses and creeks transect the area proposed to be cleared (FMG, 2019; GIS Database). Several named water courses and creeks transect the application area:</p> <ul style="list-style-type: none"> • Yule River – major ephemeral, • Yule River – minor ephemeral, • Two Camel Creek – minor ephemeral, • Goman creek – minor ephemeral, • Edgina creek – minor ephemeral, and • Coorong creek – minor ephemeral (GIS Database). <p>The application area is located within the Pilbara Ground Water Area and Pilbara Surface Water Area proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (GIS Database). The nearest Public Drinking Water Source Area is Millstream Water Reserve, located approximately 14 kilometres west of the application area (GIS Database). The nearest nationally important wetland is located approximately 5 kilometres south of the application area (GIS Database). The application area intersects part of the Fortescue Marshes draft proposed Ramsar addition, however, is not currently listed under the Ramsar Convention (GIS Database). The mapped groundwater salinity is 500-3000 milligrams per litre total dissolved solids which is described as marginal to brackish (GIS Database).</p>
Flora	<p>There are no records of Threatened flora within the application area (FMG, 2019; GIS Database). There are records of two Threatened flora species within 50 kilometres of the application area (FMG, 2019; GIS Database). There are records of three priority flora within the application area (FMG, 2019) and 40 within 10 kilometres of the application area (GIS Database).</p>
Ecological communities	<p>There are no records of Threatened Ecological Communities (TEC's) within the application area (FMG, 2019; GIS Database). The nearest TEC is approximately 17 kilometres southwest of the application area (GIS Database). One Priority Ecological Community (PEC) intersects the application area – Wona Land System (Priority 1) and seven occur within 50 kilometres of the application area (Appendix A.4; GIS Database).</p>
Fauna	<p>There are records of 14 conservation significant fauna species within the application area and 40 within 10 kilometres of the application area (GIS Database).</p>
Fauna habitat	<p>Eleven fauna habitats have been recorded within the application area (detailed in Decision Report CPS 8716/1; Spectrum Ecology, 2018).</p>

A.2. Flora analysis table

Attributes of conservation significant flora conservation significant flora identified from previous surveys and database searches (Ecoscape, 2018). Updates to Priority flora conservation status include but are not limited to the following species: *Abutilon* sp. *Pritzelianum* (S. van Leeuwen 5095) (P3), *Eremophila spongiocarpa* (P3), *Euphorbia australis* var. *glabra* (P3), *Eragrostis crateriformis*, *Goodenia nuda* and *Nicotiana heterantha* (no listing). Updates to taxon names include *Euploca mutica* formerly *Heliotropium muticum*, *Dolichocarpa* sp. *Hamersley Station* (A.A. Mitchell PRP 1479), formerly *Oldenlandia* sp. *Hamersley Station* (A.A. Mitchell PRP 1479) (Western Australian Herbarium, 1998-).

Species name	Description	Vegetation	Flowering Period	Habitat incl. soils/landforms
Priority 1				
<i>Abutilon</i> sp. <i>Pritzelianum</i> (S. van Leeuwen 5095)	Erect shrub to 2m, yellow or orange flowers. Potentially a disturbance opportunist	<i>Eucalyptus camaldulensis</i> ; <i>Acacia ancistrocarpa</i> , <i>Acacia inaequilatera</i> , <i>Triodia epactia</i> ; <i>Eragrostis eriopoda</i> grassland; <i>Sida</i> spp. low shrubland; <i>Triodia grassland</i>	Jun-Nov	Alluvium, sand, red clay; creek lines, sandplains, floodplains
<i>Acacia leeuweniana</i>	Shapely, obconic trees with neither branchlets nor phyllodes pendulous; adolescent plants often with a conifer-like appearance. Bark 'Minni Ritchi'. Phyllodes (mature plants) linear, long and narrow, flat, straight, green to dull grey-green or sub-glaucous, not especially rigid; parallel longitudinal nerves very fine and close together; apices pungent or sub-pungent. Spikes light golden.	See habitat	April/May and also late October	Known from only three granite outcrops in the central Pilbara. Skeletal gritty red-grey granitic sandy loam, light orange-brown gravelly sand over granite. In rock fissures in outcrops, among boulders.
<i>Cochlospermum macnamarae</i>	Spreading multi-stemmed shrub	Very open <i>Triodia</i> grassland	In response to rain	Shallow stony soil/Upper slopes of a low hill over granite
<i>Dipteracanthus chichesterensis</i>	Spreading, glabrescent, perennial subshrubs to 30 cm tall	<i>Acacia xiphophylla</i> tall shrublands. <i>Triodia wiseana</i> very open hummock grassland with scattered shrubs to an open shrub layer, often with <i>Senna artemisioides</i> subsp. <i>x sturtii</i> , <i>S. artemisioides</i> subsp. <i>oligophylla</i> , <i>Ptilotus</i> aff. <i>Obovatus</i> and <i>Rhagodia eremaea</i> .	March, and sporadically following significant rainfall events	Three known locations within the Chichester Plateau 175 and the Wona Land System. Red-brown cracking clay soils associated with basalts. Various landforms on the plateau including slopes, tablelands, benches and creek margins.
<i>Eremophila spongiocarpa</i>	Compact, succulent-leaved shrub, to 1 m high	-	May or Sept	Weakly saline alluvial plain on margins of marsh
<i>Samolus</i> sp. Fortescue Marsh (A. Markey & R. Coppen FM 9702)	Tall, flexuose, dichotomously and many-branched stems, producing a characteristically erect, tangled, divaricate form.	See habitat	-	Restricted to both the margins of semi-permanent/permanent freshwater pools and the margins of samphire shrublands where creeks discharge freshwater following periods of high rainfall
<i>Tecticornia globulifera</i>	Low sub-shrub to 0.8m with decussate, laterally-paired inflorescences comprised of distinctly undulate bracts.	Material has been observed in flower from August and fruits begin to mature in November. Associated with other samphire species	Has been observed in flower from August	Widespread across the saline flats of Fortescue Marsh on red-brown clay associated with other species <i>Tecticornia</i> .
<i>Tecticornia</i> sp. Christmas Creek (K.A. Shepherd & T. Colmer et al. KS 1063)	Low sub-shrub with decussate, laterally-paired inflorescences comprised of distinctly undulate bracts.	Associated with other species of <i>Tecticornia</i>	Not recorded	Widespread across the saline flats of Fortescue Marsh on red-brown clay associated with other species of <i>Tecticornia</i> .
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	Erect or sprawling shrub, maroon-red-purple or pink flowers	<i>Acacia coriacea</i> ; <i>Triodia epactia</i> ; <i>Spinifex longifolius</i> ; <i>Acacia stellaticeps</i> ; <i>Cenchrus ciliaris</i>	Mar-Oct	Sand, sandy loam /Coastal dunes, plains
Priority 2				
<i>Adiantum capillus-veneris</i>	Rhizomatous, perennial fern	See habitat	-	Found on calcareous soils derived from calcrete, limestone or dolomite, just above the waterline of shaded banks and cliff faces along small, perennial rivers in low-altitude woodland, where there is a marked dry season. Although usually lithophytic, it has been recorded as being epiphytic on trees which receive the spray from waterfalls.
<i>Dicladathera glabra</i>	Spreading perennial, herb or shrub, to 0.6(-1) m high	Recorded as growing in mixed shrubland with <i>Callitris</i> sp. on coarse sandy loam amongst rocks or iron rich alluvial soils. Also recorded in cobble beds of high-velocity creeks amongst <i>Acacia citrinoviridis</i> with an understorey of <i>Corchorus</i> sp. and <i>Cymbopogon</i> sp.	Apr or Aug to Oct	Alluvium. Along watercourses, near rock pools.
<i>Euphorbia australis</i> var. <i>glabra</i>	Prostrate herb	<i>Eucalyptus camaldulensis</i> , open forest or <i>E. victrix</i> , low forest on sandy to clayey-loam alluvium.	Apr-Sep	Cracking clays/Banks of semi-permanent pools, creeklines or alluvial flats
<i>Gompholobium karjini</i>	Glabrous, non-viscid, erect shrub with compound leaves and yellow pea-like flowers.	Occurs in open <i>Triodia</i> hummock grassland with scattered shrubs and trees	Jan and Aug to Sep	Recorded from skeletal soils on the edges of deep ravines or plateaux on banded ironstone.
<i>Gomphrena pusilla</i>	Slender branching annual, herb, to 0.2 m high	Grows in littoral vegetation	Mar to Apr or Jun	Fine beach sand. Behind fore dune, on limestone.
<i>Paspalidium retiglume</i>	Tufted annual, grass-like or herb	Tropical and subtropical sub-humid woodlands, arid and semi-arid low woodlands, arid tussock grasslands, and arid hummock grasslands.	Apr	Clay/Plains or gently undulating terrain
<i>Teucrium pilbaranum</i>	Upright shrub 0.2m high	Tussock grassland of self	May or Sep	Clay/Crab hole plains in river floodplains, margins of calcrete tables

Priority 3				
<i>Acacia dawsoniana</i>	Spreading shrub, 0.3-1.5(-2) m high. Bark grey but peeling in a more or less Minni Ritchi fashion at base of stems	See habitat	June to Aug	Rocky red skeletal loam in spinifex on lower scree slopes; bajada outwash fans of rocky banded ironstone ranges and ridges (often along diffuse but well incised drainage lines).
<i>Acacia effusa</i>	Low spreading shrubs (0.6 to 3m across), domes or flat-topped, somewhat viscid shrubs to 1.2m tall. Bark Minni Ritchi.	See habitat	May to Aug	Stony red loam with surface strewn of rocks in spinifex on lower scree slopes of low rocky ranges (often along diffuse drainage lines) or on the bajada alluvial plain at the base of large banded ironstone mountains. Often common where it occurs.
<i>Acacia levata</i>	Spreading shrubs, sometimes with a snakewood growth habit. This species is common in the places where it occurs sometimes forming extensive thickets.	Common associates are <i>A. hilliana</i> and <i>A. stellaticeps</i> .	Flowers have been collected in late May and pods with mature seeds from mid-October to early November.	Grows with spinifex in gently undulating, low rocky hills (often associated with seasonally dry watercourses), on shallow sand, sandy loam or clay-loam over granite or quartz.
<i>Aristida jerichoensis</i> var. <i>subspinulifera</i>	Compactly tufted perennial, grass-like or herb, 0.3-0.8 m high	<i>Eucalyptus, mulga</i> (<i>Acacia aneura</i>) and <i>Triodia</i> communities	Summer or in response to rain	Red earths and clays/Hardpan plains
<i>Atriplex flabelliformis</i>	Monoecious, fan-shaped herb, to 0.35 m high	See habitat	-	Clay loam, loam. Swampy or saline soils that are seasonally inundated
<i>Eragrostis crateriformis</i>	Annual, grass-like or herb, 0.17-0.42 m high	See habitat	Jan to end July	Clayey loam or clay/creek banks and depressions
<i>Eremophila magnifica</i> subsp. <i>velutina</i>	Erect aromatic shrub, to 1.3m tall	Common and growing amongst <i>Triodia</i> and <i>Acacia</i> species	June to Sep	Rocky red-brown loams on hill slopes and along ephemeral drainage lines
<i>Eucalyptus rowleyi</i>	Mallee	Often in small pure stands or in open mallee vegetation with other eucalypt species including <i>E. gamophylla</i> - <i>E. odontocarpa intergrades</i> and <i>E. victrix</i> , and usually with a <i>Triodia</i> ground storey.	Nov to June	Occurs on red sandy loams on plains and very minor and broad flood-out plains (similar to the habitat of <i>E. lucasii</i>)
<i>Euphorbia clementii</i>	Erect herb to 0.6 m high	<i>Triodia epactia</i> , <i>Acacia inaequilatera</i> ; <i>Corymbia hamersleyana</i> , <i>Acacia tumida</i> ; <i>Triodia basedowii</i> ; <i>Triodia lanigera</i>	-	Red clay loam, colluvium, granitic/Sandplain, outwash fans, lower slopes
<i>Euphorbia stevenii</i>	Somewhat succulent perennial, herb, 0.1-0.5 m high	-	Probably, sporadically following significant rainfall events	Clay or clay-loam soils.
<i>Glycine falcata</i>	Mat-forming perennial, herb, to 0.2 m high	Typically in grasslands in low-lying area	May or July	Black clayey sand/Along drainage depressions in crabhole plains on river floodplains
<i>Gomphrena leptophylla</i>	Prostrate or erect to spreading annual herb to 0.15 m high, white flowers	<i>Triodia lanigera</i>	Mar to Sep	Sand, sandy clay, loam, granite, quartz, alluvium /Flats, creeks, salt pan edges, marshes, stony hills, floodplains
<i>Goodenia</i> sp. East Pilbara (A.A. Mitchell PRP 727)	Open, erect annual or biennial, herb, to 0.2 m high	Growing in swamp on a major river system in <i>Eucalyptus victrix</i> woodland	September	Red-brown clay soil, calcrete pebbles. Low undulating plain, swampy plains.
<i>Grevillea saxicola</i>	Upright shrub or small tree with grey-black, rough bark	Often found growing in Mulga woodlands	Late spring to early autumn	Orange-brown to red-brown loam soils on the upper scree and crests often associated with banded iron formation outcropping.
<i>Gymnanthera cunninghamii</i>	Erect shrub 1-2 m high, cream-yellow-green flowers	<i>Eucalyptus victrix</i> ; <i>Eucalyptus camaldulensis</i> ; <i>Triodia pungens</i>	Jan-Dec	Sand, alluvium, clayey sand, basalt, ironstone, clay loam, limestone. Creeklines, scree, floodplains
<i>Heliotropium murinum</i>	Short-lived perennial, herb, up to 0.4 m high	<i>Triodia</i> hummock grasslands	May or Sep	Recorded from road verges on red sand plains, gibber plains and near granite
<i>Heliotropium muticum</i>	Short-lived perennial herb to 0.4 m high, white flowers	<i>Corymbia hamersleyana</i> , <i>Acacia inaequilatera</i> , <i>Triodia epactia</i> ; <i>Triodia lanigera</i> ; <i>Triodia pungens</i>	May to Sep	Sand, granitic sand, plains
<i>Indigofera gilesii</i>	Shrub, to 1.5 m high	Open shrub mallee consisting of <i>Eucalyptus gamophylla</i>	May or Aug	Usually high in the landscape on skeletal soils overlaying massive ironstones of the Brockman Iron Formation
<i>Nicotiana heterantha</i>	Decumbent, short-lived annual or perennial, herb, to 0.5 m high, forming low, spreading colonies	Typically associated with <i>Melaleuca</i> species	Mar to Jun or Sep	Black clay. Seasonally wet flats.
<i>Nicotiana umbratica</i>	Erect short-lived annual or perennial herb 0.3-0.7 m high, white flowers	<i>Eucalyptus victrix</i> ; <i>Eucalyptus leucophloia</i> ; Mulga; <i>Acacia arida</i>	Apr-Jul	Skeletal soils, ironstone, granite. Sheltered areas, creek lines, gorges, rocky outcrops, steep slopes, hills
<i>Oldenlandia</i> sp. Hamersley Station (A.A. Mitchell PRP 1479)	Spreading annual, herb, 0.05-0.1m high	-	Mar	Cracking clay, basalt. Gently undulating plain with large surface rocks, flat crab-holed plain.
<i>Olearia mucronata</i>	Densely branched, unpleasantly aromatic shrub, 0.6-1 m high	-	Aug to Dec or Jan	Mesic areas amongst ironstone boulders and along creek lines sometimes local abundant on the margins of dry creek lines
<i>Phyllanthus hebecarpus</i>	Erect rigid, shrub	<i>Terminalia canescens</i> , <i>Acacia tumida</i> , <i>Acacia retivena</i> , <i>Triodia epactia</i>	May-Jul	Only recorded in WA from sand areas between granite domes, occasionally persisting in rock cracks and almost lithophytic
<i>Rostellularia adscendens</i> var. <i>latifolia</i>	Herb or shrub, 0.1-0.3 m high	-	Apr to May	Ironstone soils. Near creeks, rocky hills.

<i>Rothia indica</i> subsp. <i>australis</i>	Prostrate annual, herb, to 0.3 m high, densely covered in spreading hairs.	-	Apr-Aug	Sandy soils/Sand hills and sandy flats
<i>Stylidium weeliwoili</i>	Annual herb to 25 cm high, pink flowers	<i>Eucalyptus victrix</i> , <i>Eucalyptus camaldulensis</i> , Mulga	Aug-Sep	Alluvium, clay, sand, wet soil /Watercourses, plains
<i>Swainsona thompsoniana</i>	A small tufted compound-leaved annual herb. Probably annual or ephemeral	See habitat	Flowering and seeding recorded all year.	Recorded from gibber plains, crabhole plains and gilgai, usually at some elevation and in association with tussock grasses
<i>Tecticornia medusa</i>	Medium to tall samphire. Articles succulent, green or yellowish-green.	Samphire	July and November	Grows in red-brown, gritty clay on a saline alluvial plain some distance from the shoreline. This area is likely to be inundated for longer periods and it is hypothesised that this species is more waterlogging-tolerant than other species found in the area.
<i>Terminalia supranitfolia</i>	Spreading, tangled shrub or tree, 1.5-3 m high	<i>Triodia epactia</i> , <i>Triodia wiseana</i> , <i>Acacia acradenia</i> ; <i>Acacia bivenosa</i> ; <i>Grevillea wickhamii</i> ; <i>Rhagodia eremaea</i>	May or Jul or Dec	Sand. Among basalt rocks.
<i>Themeda</i> sp. Hamersley Station (M.E. Trudgen 11431)	Tussocky perennial, grass-like or herb, 0.9-1.8 m high	<i>Aristida</i> and <i>Astrebla</i> tussock grassland	Aug	Red clay/Clay pans, grass plains
<i>Triodia basitricha</i>	Hummock forming perennial grass, non-resinous or weakly resinous, not obviously stoloniferous; compact, c. 30-40 cm high, 40-60 cm diam;	-	January to March	Collections are all from the slopes or crests of rocky hills
<i>Triodia chichesterensis</i>	Diminutive hummock forming perennial grass, 0.2-0.4 m tall, Leaf sheaths glabrous; orifice woolly to straight-pubescent with hairs 2-3 mm long	-	Florets observed February-April and August.	Occurs in rocky to gravelly substrates of loam or sand, often with quartzite pieces evident on the surface
Priority 4				
<i>Acacia bromilowiana</i>	Tree or shrub, to 12 m high, bark dark grey, fibrous; phyllodes more or less glaucous & slightly pruinose; inflorescence in spikes.	Dominated by very open low eucalypt woodlands (<i>Eucalyptus leucophloia</i> , <i>Corymbia hamersleyana</i>) over spinifex (e.g. <i>Triodia pungens</i> , <i>T. wiseana</i>).	Jul to Aug	Red skeletal stony loam, orange-brown pebbly, gravel loam, laterite, banded ironstone, basalt. Rocky hills, breakaways, scree slopes, gorges, creek beds.
<i>Bulbostylis burbridgeae</i>	Tufted, erect to spreading annual sedge 0.03-0.25m high	<i>Triodia epactia</i>	Mar-Aug	Granitic soils/Granite outcrop, cliff bases
<i>Eremophila magnifica</i> subsp. <i>magnifica</i>	Shrub, 0.5-1.5m high	-	Aug to Sep	Skeletal soils over ironstone. Summits.
<i>Eremophila youngii</i> subsp. <i>lepidota</i>	Dense, spreading shrub, (0.2-) 1-3m high.	Recorded from mulga woodlands or shrub lands, often associated with chenopodiaceous shrubs	Jan or Mar or Jun or Aug to Sep	Stony red sandy loam. Flats plains, floodplains, sometimes semi-saline, clay flats.
<i>Goodenia nuda</i>	Erect to ascending herb, to 0.5m high Fl. yellow	<i>Acacia tumida</i> , <i>Triodia epactia</i>	Apr-Aug	Red-brown clay loam, ironstone/Low lying areas (floodplains, outwash areas) occasionally hills
<i>Ptilotus mollis</i>	Compact perennial shrub to 0.5m high, white/pink flowers	<i>Eucalyptus leucophloia</i> , <i>Corymbia hamersleyana</i> ; <i>Eucalyptus kingsmillii</i> ; <i>Acacia bivenosa</i> , <i>Acacia synchronicia</i> ; <i>Triodia basedowii</i> , <i>Triodia pungens</i>	May-Sep	Ironstone, clay loam/Stony hills, scree, crests
<i>Rhynchosia bungarensis</i>	Compact, prostrate shrub, to 0.5m high	-	Mar to Jun	Pebbly, shingly coarse sand amongst boulders. Banks of flow line in the mouth of a gully in a valley wall.

Additionally, through a search of available databases, several species were identified to occur within 10 kilometres of the application area (Western Australian Herbarium, 1998-; GIS Database).

Species name	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)
Priority 1			
<i>Euploca argyrea</i>	Unknown	<5km	1
<i>Gompholobium</i> sp. Roy Hill (G. Buller ATF08 AQ14)	Unknown	<3km	4
<i>Helichrysum oligochaetum</i>	Y	<8km	14
<i>Josephinia</i> sp. Woodstock (A.A. Mitchell PRP 989)	Y	<2km	7
<i>Triodia veniciae</i>	Y	<4km	26
Priority 3			
<i>Goodenia obscurata</i>	Y	<4km	29
<i>Iotasperma sessilifolium</i>	Y	<7km	18
<i>Solanum</i> sp. Red Hill (S. van Leeuwen <i>et al.</i> PBS 5415)	N	<10km	20
<i>Stackhousia clementii</i>	N	<6km	22

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

A.3. Fauna analysis table

Conservation significant fauna within several species were identified to occur within 10 kilometres of the application area (FMG, 2019; Spectrum Ecology, 2018; GIS Database).

Species name	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)
Mammals			
Banded hare-wallaby (<i>Lagostrophus fasciatus fasciatus</i>)	VU	Y	0
Brush-tailed mulgara (<i>Dasycerus blythi</i>)	P4	Y	0
Crest-tailed mulgara (<i>Dasymercus cristicauda</i>)	P4	Y	<2
Ghost bat (<i>Macroderma gigis</i>)	VU	Y	0
Greater bilby (<i>Macrotis lagotis</i>)	VU	Y	0
Long-tailed dunnart (<i>Antechinomys longicaudatus</i> , formerly <i>Sminthopsis longicaudata</i>)	P4	Y	0
Northern Quoll (<i>Dasyurus hallucatus</i>)	EN	Y	0
Pilbara Leaf-nosed bat (Pilbara form) (<i>Rhinonictis aurantia</i>)	VU	Y	0
Spectacled hare-wallaby (mainland) (<i>Lagorchestes conspicillatus leichardti</i>)	P4	Y	0
Western pebble-mound mouse (<i>Pseudomys chapmani</i>)	P4	Y	0
Reptiles			
Gane's blind snake (Pilbara) (<i>Anilius ganeï</i>)	P1	Y	<5
Lined soil-crevice skink (Dampier) (<i>Notoscincus butleri</i>)	P4	Y	<9
Pilbara barking gecko (<i>Underwoodisaurus seorsus</i>)	P2	N	<1
Pilbara olive python (<i>Liasis olivaceus barroni</i>)	VU	Y	0
Pin-striped finesnout Ctenotus (<i>Ctenotus nigrilineatus</i>)	P1	Y	<7
Birds			
Asian dowitcher (<i>Limnodromus semipalmatus</i>)	MI	N	<2
Broad-billed sandpiper (<i>Calidris falcinellus</i>)	MI	N	<1
Brown booby (<i>Sula leucogaster</i>)	MI	N	0
Caspian tern (<i>Hydroprogne caspia</i>)	MI	N	<1
Common tern (<i>Sterna hirundo</i>)	MI	N	<1
Common greenshank (<i>Tringa nebularia</i>)	MI	Y	0
Common sandpiper (<i>Actitis hypoleucos</i>)	MI	Y	0
Crested tern (<i>Thalasseus bergii</i>)	MI	N	<4
Eastern curlew (<i>Numenius madagascariensis</i>)	CR	N	<2
Fork-tailed swift (<i>Apus pacificus</i>)	MI	Y	<2
Great knot (<i>Calidris tenuirostris</i>)	CR	N	<9
Greater sand plover (<i>Charadrius leschenaultii</i>)	VU	N	<9
Grey falcon (<i>Falco hypoleucos</i>)	VU	Y	0
Grey plover (<i>Pluvialis squatarola</i>)	MI	N	<3
Grey-tailed tattler (<i>Tringa brevipes</i>)	P4	N	<9
Gull-billed tern (<i>Gelochelidon nilotica</i>)	MI	N	<1
Little curlew (<i>Numenius minutus</i>)	MI	N	<1
Marsh sandpiper (<i>Tringa stagnatilis</i>)	MI	N	<1
Night parrot (<i>Pezoporus occidentalis</i>)	CR	N	<8
Oriental plover (<i>Charadrius veredus</i>)	MI	N	<2
Osprey (<i>Pandion haliaetus</i>)	MI	N	<9

Species name	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)
Pacific golden plover (<i>Pluvialis fulva</i>)	MI	N	<7
Peregrine falcon (<i>Falco peregrinus</i>)	OS	Y	<3
Red-necked phalarope (<i>Phalaropus lobatus</i>)	MI	N	<1
Red-necked stint (<i>Calidris ruficollis</i>)	MI	N	<9
Ruddy turnstone (<i>Arenaria interpres</i>)	MI	N	<9
Ruff (<i>Calidris pugnax</i>)	MI	N	<1
Sanderling (<i>Calidris alba</i>)	MI	N	<3
Sandhill grasswren (<i>Amytornis oweni oweni</i> , formerly <i>Amytornis striatus striatus</i>)	P4	Y	<9
Sharp-tailed sandpiper (<i>Calidris acuminata</i>)	MI	N	<2
Terek sandpiper (<i>Xenus cinereus</i>)	MI	N	<1
White-winged black tern (<i>Chlidonias leucopterus</i>)	MI	N	<1
Fish			
Fortescue grunter (<i>Leiopotherapon aheneus</i>)	P4	N	<5

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

A.4. Ecological community analysis table

Conservation significant ecological communities within 50 kilometres of the application area (GIS Database).

Community name	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)
Critically Endangered		
Themeda grasslands (<i>Themeda</i> sp. Hamersley Station (M.E. Trudgen 11431)) on cracking clays (Hamersley Station, Pilbara)	Y	<16km
Priority 1		
Brockman Iron cracking clay communities of the Hamersley Range	N	<11km
Fortescue Marsh (Marsh Land System)	N	<5km
Four plant assemblages of the Wona Land System (previously 'Cracking clays of the Chichester and Mungaroona Range')	Y	0
Freshwater claypans downstream of the Fortescue Marsh - Goodiadarrie Hills on Mulga Downs Station.	N	<13km
Priority 3		
Eighty Mile Land System	N	<36km
Gregory Land System	N	<18km
Kumina Land System	N	<24km
Vegetation of sand dunes of the Hamersley Range/Fortescue Valley	N	<28km

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

Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<p><u>Principle (a):</u> “Native vegetation should not be cleared if it comprises a high level of biodiversity.”</p> <p><u>Assessment:</u></p> <p>A consolidated flora and vegetation assessment report recorded 495 vascular flora taxa from 58 families and 179 genera within the application area and one kilometre buffer of the application area (Ecoscape, 2018).</p> <p>Three priority flora species have been recorded within the application area (FMG, 2019; GIS Database):</p> <ul style="list-style-type: none"> • <i>Abutilon</i> sp. <i>Pritzelianum</i> (S. van Leeuwen 5095) (P3) • <i>Gomphrena leptophylla</i> (P3) • <i>Euploca mutica</i> (formerly <i>Heliotropium muticum</i>) (P3) <p>Internal buffers of 50 metres have been added to conservation significant flora species (FMG, 2019). Powerline construction has been complete for most of the application area, with remaining clearing associated under this permit located within Miscellaneous Licence 45/456 (Fortescue, 2025). There are no records of Threatened or Priority within this portion of the application area (FMG, 2019; GIS Database).</p> <p>One priority flora, <i>Goodenia nuda</i> was identified within the application area and previously listed as Priority 4 (FMG, 2019), however this species no longer meets the requirements for threatened or priority and has been removed from the DBCA Priority List (Western Australian Herbarium, 1998-).</p> <p>One Priority Ecological Community (PEC) intersects the application area – four plant assemblages of the Wona Land System (Priority 1 or Priority 3) all occurring on basalt upland gilgai plains throughout the Chichester Range (DBCA, 2025; GIS Database). Several other PEC’s surround the application area and within the buffer of the Fortescue Marsh (Marsh Land System) PEC (Appendix A.4), however, infrastructure placement avoids vegetation communities of conservation significance and it is unlikely any PEC’s will be significantly impacted by the proposed clearing (FMG, 2019).</p> <p>A total of ten introduced flora species were identified within the application area (FMG, 2019), including rubber bush (<i>Calotropis procera</i>) which is listed as a Declared Pest under Section 22 (2) of the <i>Biosecurity and Agriculture Management Act 2007</i>. None of the species are listed as Weeds of National Significance, however weeds have potential to out-compete native flora and reduce biodiversity of an area. Potential impacts to biodiversity as a result of the proposed clearing can be minimised by the maintaining of a weed management condition.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 8716/2)</p>	<p>No</p>
<p><u>Principle (b):</u> “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.”</p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared contains records of several conservation significant fauna (Appendix A.3) and associated habitat. While suitable habitat occurs within the application area for numerous species, approximately 884 hectares has previously been disturbed or cleared (Fortescue Ltd, 2024; FMG, 2019). Excluding minor creek line and major river habitat, all habitat types are not considered to be restricted and extend beyond the application boundary.</p> <p>Minor creek line and major river habitat types may contain breeding and foraging habitat for a number of bird species and dispersal for mammal and reptile species. Migratory bird species are typically associated with coastal habitats, with five that utilise inland ephemeral wetland habitat types typically after significant rainfall and forage in adjacent open grassland habitats (Spectrum Ecology, 2018). Potential impacts to this vegetation can be minimised by maintaining the vegetation management condition.</p> <p>Twelve conservation significant mammal species and four reptile species are likely to or have the potential to occur within the application area (GIS Database). Given the extent of clearing and project design utilising previously disturbed areas, the proposed clearing is unlikely to significantly impact fauna at a regional scale, however potential</p>	<p>At variance</p> <p>(changed from CPS 8716/2)</p>	<p>No</p>

Assessment against the clearing principles	Variance level	Is further consideration required?
local impacts to terrestrial vertebrate can be minimised with the implementation of a directional clearing condition and a fauna spotter condition.		
<p><u>Principle (c):</u> <i>“Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</i></p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared is unlikely to contain flora species listed under the BC Act. No Threatened flora have been identified within the application area (FMG, 2019; GIS Database). The nearest record of Threatened flora is <i>Quoya zonalis</i> (formerly <i>Pityrodia</i> sp. Marble Bar (T)) located approximately 17 kilometres from the application area (GIS Database). <i>Pityrodia</i> sp. Marble Bar has been renamed since the last assessment, however, remains listed as a Threatened flora taxon under the BC Act and the EPBC Act under the name <i>Quoya zonalis</i> (Commonwealth of Australia, 2008; Western Australian Herbarium, 1998-). <i>Synostemon hamersleyensis</i> has been recorded approximately 35 kilometres from the application area with habitat described as breakaway formations and rock outcrops either side of incised gully systems (Telford and Naaykens, 2015; GIS Database). The application area is unlikely to contain suitable habitat for this species.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 8716/2)</p>	<p>No</p>
<p><u>Principle (d):</u> <i>“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.”</i></p> <p><u>Assessment:</u></p> <p>No Threatened Ecological Communities are known to occur within the application area (Ecoscape, 2018; GIS Database). The nearest TEC <i>Themeda</i> grasslands (<i>Themeda</i> sp. Hamersley Station (M.E. Trudgen 11431)) on cracking clays (Hamersley Station, Pilbara) is located approximately 16 kilometres from the application area (GIS Database). The vegetation associated with the Hamersley Rail has been previously surveyed and is not known to occur within the application area (Ecoscape, 2018).</p>	<p>Not likely to be at variance</p> <p>(as per CPS 8716/2)</p>	<p>No</p>
Environmental value: significant remnant vegetation and conservation areas		
<p><u>Principle (e):</u> <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u></p> <p>The extent of the mapped vegetation type is consistent with the national objectives and targets for biodiversity conservation in Australia (Government of Western Australia, 2019). The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area (GIS Database).</p>	<p>Not at variance</p> <p>(as per CPS 8716/2)</p>	<p>No</p>
<p><u>Principle (h):</u> <i>“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></p> <p><u>Assessment:</u></p> <p>Given the distance to the nearest conservation area (GIS Database), the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 8716/2)</p>	<p>No</p>
Environmental value: land and water resources		
<p><u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u></p> <p>Given several major ephemeral watercourses and minor named creeks intersect the application area, the proposed clearing is likely to impact vegetation associated with watercourses. Five groundwater dependent ecosystems (GDE’s) (1.5 hectares) and seven potential GDE’s (4.3 hectares) have been mapped within the application area and are typically associated with drainage lines (FMG, 2019). Transmission line pylons would not be located within or on the banks of drainage lines due to the high potential for damage during flood events, therefore, any impacts associated with the proposed clearing is likely to be minimal (FMG, 2019). Potential impacts to riparian vegetation and groundwater dependent ecosystems can be minimised by maintaining the watercourse management condition.</p>	<p>At variance</p> <p>(as per CPS 8716/2)</p>	<p>No</p>

Assessment against the clearing principles	Variance level	Is further consideration required?
<p>Principle (g): "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."</p> <p>Assessment:</p> <p>The mapped soils are generally not susceptible to erosion, except for the Jamindie, Mallina and River land systems that have a moderate to high risk of erosion (Van Vreeswyk <i>et al.</i>, 2004; GIS Database). Potential impacts to land degradation can be minimised by maintaining the staged clearing condition.</p>	<p>May be at variance</p> <p>(as per CPS 8716/2)</p>	No
<p>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."</p> <p>Assessment:</p> <p>Given no Public Drinking Water Sources Areas are recorded within the application area (GIS Database), the proposed clearing is unlikely to impact surface or ground water quality.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 8716/2)</p>	No
<p>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."</p> <p>Assessment:</p> <p>There are a number of watercourses that intersect the application area (GIS Database). Seasonal drainage lines are common in the region and temporary localised flooding may occur following heavy rainfall events. Given the extent of clearing, the proposed clearing is unlikely to increase the incidence or intensity of flooding.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 8716/2)</p>	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):

- Aboriginal Heritage Places (DPLH-001)
- 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)
- Esri World Imagery
- Groundwater Salinity Statewide (DWER-026)
- Hydrographic Catchments – Catchments (DWER-028)
- Hydrography – Inland Waters – Waterlines
- Hydrography, Linear (DWER-031)
- IBRA Vegetation Statistics
- Native Title (ILUA) (LGATE-067)
- Native Vegetation Extent (DPIRD-005)
- Pre-European Vegetation (DPIRD-006)
- Ramsar Sites (DBCA-010)
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping – Best Available (DPIRD-027)
- Soil Landscape Mapping – Rangelands (DPIRD-064)
- WA Now Aerial Imagery

Restricted GIS Databases used:

- Threatened 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

- Bureau of Meteorology (BoM) (2025) Bureau of Meteorology Website – Climate Data Online, Port Hedland Airport (4032), Wittenoom (5026 - closed in 2019). Bureau of Meteorology. <https://reg.bom.gov.au/climate/data/> (Accessed 15 January 2025).
- Conservation and Land Management (CALM) (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- Commonwealth of Australia (2008) Species Profile and Threats Database. Department of Climate Change, Energy, the Environment and Water, Australia. <https://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl> (Accessed 15 January 2025).
- Department of Biodiversity, Conservation and Attractions (DBCA) (2025) List of threatened ecological communities (accessed 15 January 2025). Available from: [Threatened ecological communities | Department of Biodiversity, Conservation and Attractions](#)
- Department of Environment Regulation (DER) (2014) *A guide to the assessment of applications to clear native vegetation*. Perth. https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf
- 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 13 January 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 14 January 2025).
- Department of Water and Environmental Regulation (DWER) (2021) Procedure: Native vegetation clearing permits. Joondalup. <https://www.wa.gov.au/system/files/2023-06/procedure-native-vegetation-clearing-permits.pdf>
- Ecoscape (2018) Pilbara Transmission Project Flora and Vegetation Desktop Assessment. Report prepared for Fortescue Metals Group Ltd by Ecoscape, November 2018.
- Fortescue Metals Group Ltd (FMG) (2019) Native Vegetation Clearing Permit Application Supporting Documentation (Pilbara Transmission Project – Stage 1). Unpublished report prepared by Fortescue Metals Group Ltd, October 2019.
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4. 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
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	<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> (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	<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}:

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.