



Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 4442/8
Permit type:	Purpose permit
Applicant name:	Pilbara Iron Company (services) Pty Ltd
Application received:	26 June 2025
Application area:	2,500 hectares of native vegetation (500 hectares per calendar year)
Purpose of clearing:	Railway construction or maintenance
Method of clearing:	Mechanical
Property:	<p>Clearing authorised under this Permit is to be undertaken within land tenure or rights administered under the <i>Mining Act 1904 (WA)</i>, <i>Mining Act 1978 (WA)</i>, <i>Land Act 1933 (WA)</i>, <i>Land Administration Act 1997 (WA)</i>, <i>Property Law Act 1969 (WA)</i>, <i>Transfer of Land Act 1893 (WA)</i>, <i>Strata Titles Act 1985 (WA)</i>, the <i>Rights in Water and Irrigation Act 1914 (WA)</i> or the following State Agreement Acts –</p> <ul style="list-style-type: none"> • <i>Iron Ore (Hamersley Range) Agreement Act 1963</i> • <i>Iron Ore (Robe River) Agreement Act 1964</i> • <i>Iron Ore (Hamersley Range) Agreement Act 1968(Paraburdoo)</i> • <i>Iron Ore (Mount Bruce) Agreement Act 1972</i> • <i>Iron Ore (Channar Joint Venture) Agreement Act 1987</i> • <i>Iron Ore (Hope Downs) Agreement Act 1992</i> • <i>Iron Ore (Yandicoogina) Agreement Act 1996</i>
Location (LGA area/s):	<p>City of Karratha</p> <p>Shire of Ashburton</p> <p>Shire of East Pilbara</p>
Localities (suburb/s):	<p>Antonymyre, Burrup, Chichester, Cooya Pooya, Dampier, Fortescue, Gap Ridge, Innawanga, Juna Downs, Karijini, Maitland, Millstream, Mount Anketell, Mount Sheila, Newman, Pannawonica, Paraburdoo, Point Samson, Rocklea, Roebourne, Tom Price, Wickham</p>

1.2. Description of clearing activities

This amendment is to CPS 4442/7, to increase the duration of the permit for an additional 5 years. The extent and location of the clearing remains unchanged (see Figure 1, Section 1.5). CPS 4442/7 allowed for the clearing of 2,500 hectares (capped at 500 hectares per calendar year) of multiple land parcels of the Pilbara region. The permit is to facilitate the construction and maintenance of an extensive railway network and associated infrastructure. The entire clearing permit footprint sought under CPS 4442/8 is 15,051 hectares, which remains unchanged from CPS 4442/7. Records provided by the applicant indicates a total of 241.89 hectares of clearing has been undertaken under CPS 4442/7, since the commencement of the permit in 2012.

1.3. Decision on application

Decision:	Granted
Decision date:	5 January 2026
Decision area:	2,500 hectares (500 hectares per calendar year) of native vegetation, as depicted in Section 1.5, below.

1.4. Reasons for decision

This clearing permit amendment application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (DWER) advertised the application for 21 days and one submission was received. Consideration of matters raised in the public submission is summarised in Appendix B.

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix C), relevant datasets (see Appendix F.1), the clearing principles set out in Schedule 5 of the EP Act (see Appendix D), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3). The Delegated Officer also took into consideration the permit is for continued maintenance of a railway network and associated infrastructure for ongoing improvements and to maintain the safety, integrity and efficiency of the network. The applicant also clarified that while only less than 250 hectares of clearing had occurred under the permit to date, the extent of the clearing (2,500 hectare approval), is necessary for the strategic flexibility to accommodate the progressive, geographically dispersed, and often unpredictable nature of maintenance and improvement activities required across the extensive rail network.

The assessment has not changed since the assessment for CPS 4442/7, except in the case of principle (b) and principle (d). In relation to principle (b) an additional fauna management condition for the management of the greater bilby (*Macrotis lagotis*) has been included as a condition of the permit. Relating to principle (d), the Coolibah – Lignum Flats: sub type 1 was added as a priority ecological community which intersects the application area. The Delegated Officer determined that the proposed extension in the duration of the permit by five years is not likely to lead to an unacceptable risk to environmental values.

The Delegated Officer determined to grant a revised clearing permit giving effect to the following:

- extends the permit duration by five years to 31 December 2035 and the time within which clearing can occur by five years to 31 December 2030;
- add an additional fauna management condition for the management of the greater bilby (*Macrotis lagotis*); and
- add the Coolibah – Lignum Flats: sub type 1 as a priority ecological community which intersects the application area to Appendix A of the permit, within which the permit holder is not authorised to clear.

1.5. Site map

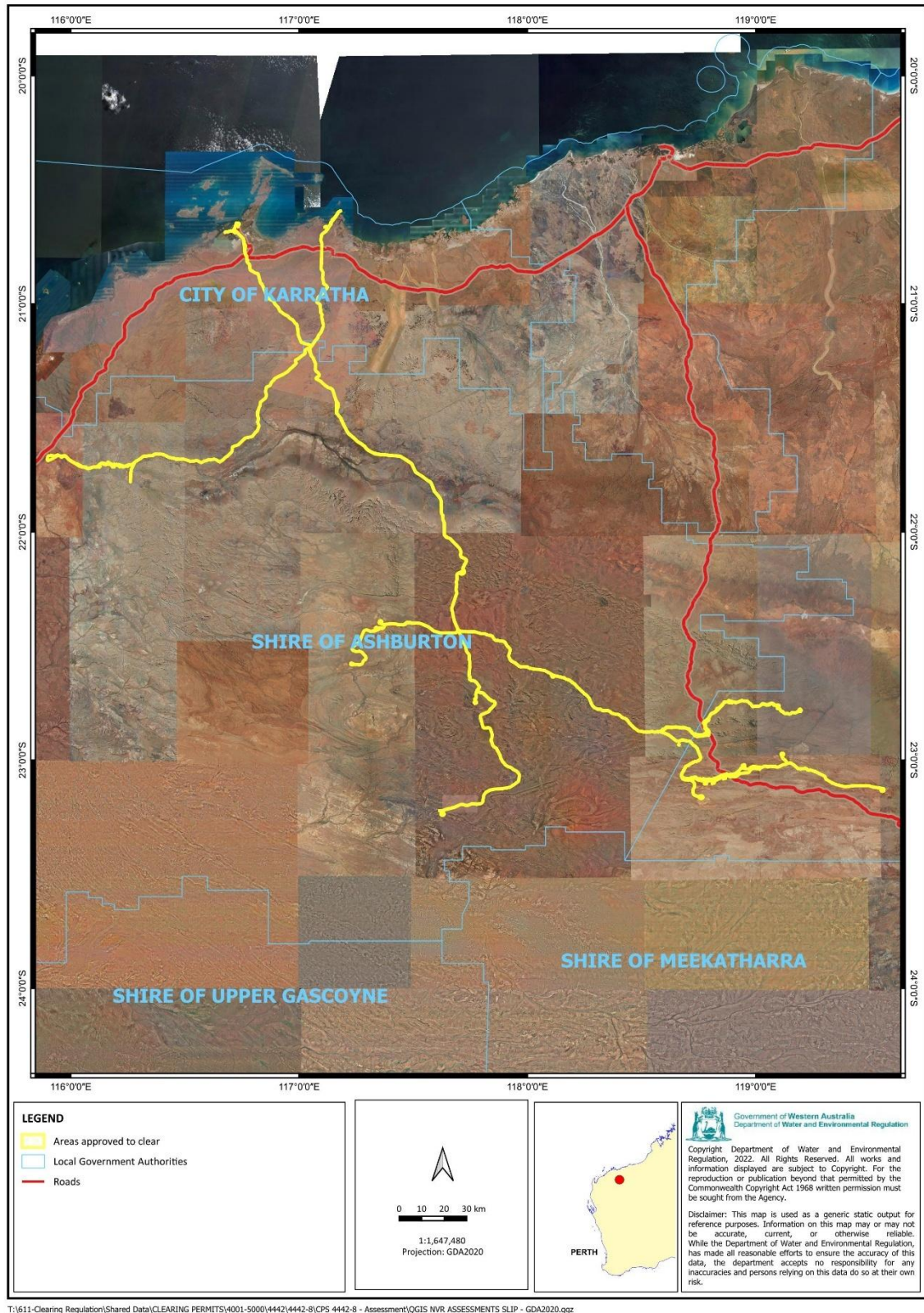


Figure 1 Map of the application area

The areas crosshatched yellow indicate the areas authorised to be cleared under the granted clearing permit.

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)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Country Areas Water Supply Act 1947* (WA) (CAWS Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

During the assessment evidence was submitted by the applicant, demonstrating the following avoidance and mitigation measures:

- utilise the mitigation hierarchy prior to clearing, including using existing cleared space
- consider adaptive design to reduce the project footprint
- demarcate work boundaries to avoid clearing outside of approved areas
- collaborate with environmental specialists to assess the project area of overlaps with sensitive or protected environmental values (including national parks, threatened and priority ecological communities, threatened and priority flora.
- ensure permit conditions are followed
- utilise an inhouse Approval Request Co-ordination System to ensure all required biological and heritage surveys are completed prior to ground disturbance
- utilise subject matter expert advice.
- once all approvals and subject matter expert reviews are complete, an in house Approvals Request (AR) permit is issued, including specific conditions to manage environmental risks prior to, during, and after clearing.

To further mitigate the impacts of the clearing revegetation and rehabilitation remains a condition of the clearing permit (refer to Condition 14 of CPS 4442/8). This condition requires the permit holder to revegetate and rehabilitate areas which are no longer required for the purpose of which they were cleared under the permit. Over the duration of the permit, 241.89 hectares has been cleared, of which 43.41 hectares has been rehabilitated or are in the process of rehabilitation.

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values.

3.2. Assessment of impacts on environmental values

A review of current environmental information (Appendix C) reveals that the assessment against the clearing principles has not changed significantly from the Clearing Permit Decision Report CPS 4442/7.

To further address impacts to the greater bilby (*Macrotis lagotis*), a bilby specific fauna management condition has been implemented as a condition on the permit.

It is also to be noted since the previous assessment of this clearing permit, an additional ecological communities have been identified within the application area. This priority ecological community have been added to Appendix A of the permit (list of threatened and priority ecological communities within the local area).

3.3. Relevant planning instruments and other matters

The City of Karratha advised DWER that they have no comments or objections to the application (City of Karratha, 2025). The Shire of Ashburton and the Shire of East Pilbara were contacted to provide comment on the proposal, however no comments were received to date.

During the assessment advice from the Water Source Protection Planning branch was sought, noting the application area intersects multiple Public Drinking Water Source Areas within the Pilbara Region. This advice identified the proposed clearing is compatible with the PDWSA and is subject to a number of conditions. It is recommended the applicant follows conditions of best practice of the water quality protection note 25 (DWER, 2021) including:

- Pesticides should be applied in accordance with best management practices (i.e. in accordance with label directions).
- There should be no refuelling, repair or maintenance of motor vehicles, nor any on-site use or storage of chemicals, unless special circumstances apply.
- Hydrocarbons, chemicals and other toxic or hazardous substances should be stored so there is no discernible risk of contamination of groundwater or surface water. This should include effective secondary barriers to contain the system, such as double-walled tanks and bunding. Restrictions apply for storage tanks as explained in Water Quality Protection Note (WQPN) 56:

It is also recommend that the railway is consistent with the following best practice guidelines:

- WQPN 28: *Mechanical servicing and workshops*
- WQPN 29: *Mobile mechanical servicing and cleaning*
- WQPN 44: *Infrastructure - Road, transportation and utility corridors*
- WQPN 84: *Rehabilitation of disturbed land in PDWSAs.*

Several Aboriginal sites of significance have been mapped within the application area. It is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972* (WA) and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

End

Appendix A. Additional information provided by applicant

Summary of comments	Consideration of comment
<p>Avoidance and mitigation:</p> <ul style="list-style-type: none"> • prior to any clearing under the permit the applicant utilises the mitigation hierarchy • Utilise existing cleared space prior to undertaking additional clearing • Utilise adaptive design and reduce the projects footprint • Demarcate work boundaries to avoid clearing outside of approved areas • Collaborate with environmental specialise to assess the project area of overlaps with sensitive or protected environmental values (including national parks, threatened and priority ecological communities, threatened and priority flora. • Follow permit conditions • Utilise onsite mitigation measures • Utilise Approval Request Co-ordination System to ensure all required regulatory approvals biological and heritage surveys are completed prior to ground disturbance • Utilise subject matter expert advice. This advice informs mitigation requirements, identifies design opportunities that reduce vegetation disturbance, and ensures conditions are in place to reduce impacts. • Once all approvals and subject matter expert reviews are complete, an Approvals Request (AR) permit is issued, typically including specific conditions to manage environmental risks prior to, during, and after clearing. 	<p>Refer to Avoidance and Mitigation Measures Section 3.1</p>
<p>Justification of necessity of the clearing extent</p> <ul style="list-style-type: none"> • The Rio Tinto Iron Ore Integrated Rail Network including all associated infrastructure within the operational corridor, is a critical component of the company's operations. • Been in operation since 1960's and the large scale networks lifespan exceeds 50 years. • Over such an extended operational timeframe, ongoing maintenance and improvement works are essential to maintain the integrity, safety, and efficiency of the system. • Activities are required due to: <ul style="list-style-type: none"> ○ high utilisation of the network as a heavy-haul system, with continual wear and tear on infrastructure. ○ The age of existing assets, with some components dating back to the original construction period in the 1960s. ○ The need to incorporate technological advancements and updated safety standards in line with industry best practice and evolving regulatory requirements. • These factors collectively necessitate periodic upgrades, replacements and improvement works along the length of the corridor to ensure that operational standards are maintained throughout the IRN's lifecycle. • The current permit provides a streamlined and consistent approval mechanism that applies to a large portion of the network. • Provides a consistent, streamlined framework and consistent environmental protection standards for managing significant environmental values occurring in proximity to the rail network, ensuring that maintenance and improvement activities across the network are undertaken in a manner that avoids or minimises environmental impact while maintaining regulatory compliance. • Eliminates the administrative and environmental duplication that would otherwise occur through multiple smaller Native Vegetation Clearing 	<p>Refer to Reason for Decision Section 1.4</p>

Summary of comments	Consideration of comment
<p>Permits, each of which would otherwise impose repetitive environmental protections and conditions without delivering additional environmental benefit.</p> <ul style="list-style-type: none"> • This permit enables essential maintenance and improvement activities in a manner that is both operationally efficient and environmentally responsible, supporting the company's commitment to sustainable land management and regulatory compliance. • Given the lifespan of the network is decades the applicant requests the extent of the clearing approved on the permit of 2,500ha remains unchanged. • The allocation provides the necessary strategic flexibility to accommodate the progressive, geographically dispersed, and often unpredictable nature of maintenance and improvement activities required across the extensive rail network. • Retaining the approved extent of clearing also ensures consistency in environmental standards, enhances transparency in compliance reporting, and enables efficient use of both regulatory and company resources, while continuing to uphold protections for significant environmental values along the network. • The 2023 Annual Report, 241.89 hectares of the approved 2,500 hectares has been utilised since the permit's commencement in 2012, this demonstrates a measured and responsible application of the clearing allocation consistent with the mitigation hierarchy principles of avoidance, minimisation, and mitigation. 	

Appendix B. Details of public submissions

Summary of comments	Consideration of comment
Application form was not correctly filled	Any missing or incorrect information was requested by the applicant during the validation of the amendment application to ensure the application was 'valid' in accordance with 51KA(1) of the EP Act.
Necessity of clearing a large area	The application is for the amendment of a historic permit originally granted in 2012. Whilst the permit is for 2,500 ha over the life of the permit no more than 500 ha can be cleared each year. During the assessment further explanation regarding the necessity of the extent of the clearing was requested (refer to Appendix A for details). This necessity was also considered in Section 1.4.
Application should be assessed by EPA	Noting the original permit was assessed under Part V of the EP Act, during the original assessment, it was considering that all impacts of the clearing can be managed under Part V of the EP Act. It is also noted that the clearing permit is for the purpose of railway construction or maintenance and not for Iron Ore operations, which are approved under Ministerial Statements issued by the EPA under Part IV of the EP Act (refer condition 7 of the permit).
Insufficient supporting information provided	The application is an amendment to an existing permit. Noting the application area expands a very large footprint, as a condition of the permit, pre-clearance surveys are required with appropriate management conditions to manage any environmental impacts

Summary of comments	Consideration of comment
	identified during the pre-clearance surveys. DWER considers it unnecessary to have upfront surveys for such a large footprint prior to approval, and that the permit conditions appropriately mitigates and significant impacts of the proposed clearing. The permit is also subject to annual reporting requirements which have been provided to the department. Additional information was also sought during the assessment, refer to Appendix A.
No avoidance and mitigation measures provided in the application	During the assessment additional avoidance and mitigation measures were requested. Refer to section 3.1 and Appendix A above.
No offset proposal has been provided	The permit is subject to conditions of revegetation and rehabilitation. This was considered in Section 3.1. Noting the extent of the clearing undertaken to date, the annual limit imposed on the permit, conditions on the permit to avoid impacts to significant environmental values, DWER considers offsets are unnecessary as no significant residual impacts are likely to occur once necessary management actions are undertaken (refer conditions 10-14 of the permit).
The applicant did not conduct a pre-scoping meeting	Noting the application is an amendment application, a pre-scoping meeting to extend the duration of the permit was not considered necessary. During validation of the application, the delegated officer would determine if a pre-scoping meeting is necessary and requested one from the applicant.

Appendix C. Site characteristics

C.1. Site characteristics

Characteristic	Details				
Local context	<p>The application area occurs within the Pilbara bioregion across multiple areas within the Shire of Ashburton, the Shire of East Pilbara and the City of Karratha.</p> <p>Spatial data indicates the local area (50-kilometre radius from the centre of the application area) retains over 90 per cent of the original native vegetation cover.</p>				
Ecological linkage	There are no mapped ecological linkages within the application area.				
Conservation areas	<p>The application area intersects two conservation areas:</p> <ul style="list-style-type: none"> • Millestream Chinchester National Park • Karijini National Park 				
Vegetation description	<p>The application area is situated within the Pilbara IBRA region.</p> <p>Spatial data indicates the vegetation within the application area consists of the following vegetation types:</p> <table> <tr> <td>Vegetation association 18</td><td>Low woodland; mulga (<i>Acacia aneura</i>)</td></tr> <tr> <td>Vegetation association 29</td><td>Sparse low woodland; mulga, discontinuous in scattered groups</td></tr> </table>	Vegetation association 18	Low woodland; mulga (<i>Acacia aneura</i>)	Vegetation association 29	Sparse low woodland; mulga, discontinuous in scattered groups
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Vegetation association 29	Sparse low woodland; mulga, discontinuous in scattered groups				

Characteristic	Details
	<p>Vegetation association 82 Hummock grasslands, low tree steppe; snappy gum over <i>Triodia wiseana</i></p> <p>Vegetation association 93: Hummock grassland with scattered shrubs or mallee <i>Triodia</i> sp. <i>Acacia</i> sp., <i>Grevillea</i> spp. <i>Eucalyptus</i> sp</p> <p>Vegetation association 117 Hummock grasslands, grass steppe; soft spinifex</p> <p>Vegetation association 127 Bare areas; mud flats</p> <p>Vegetation association 152: Hummock grasslands, grass steppe; soft & hard spinifex soft spinifex</p> <p>Vegetation association 157: Hummock grasslands, grass steppe; hard spinifex, <i>Triodia wiseana</i></p> <p>Vegetation association 162: Shrublands; snakewood scrub</p> <p>Vegetation association 173: Hummock grasslands, shrub steppe; kanji over soft spinifex & <i>Triodia wiseana</i> on basalt</p> <p>Vegetation association 175: Short bunch grassland - savanna/grass plain (Pilbara)</p> <p>Vegetation association 181: Shrublands; mulga & snakewood scrub</p> <p>Vegetation association 565: Hummock grasslands, low tree steppe; bloodwood over soft spinifex</p> <p>Vegetation association 567: Hummock grasslands, shrub steppe; mulga & kanji over soft spinifex & <i>Triodia basedowii</i></p> <p>Vegetation association 583: Hummock grasslands, sparse shrub steppe; kanji & <i>Acacia bivenosa</i> over hard spinifex <i>Triodia basedowii</i> & <i>Triodia. wiseana</i></p> <p>Vegetation association 587: Mosaic: Hummock grasslands, open low tree-steppe; snappy gum over <i>Triodia wiseana</i> / Hummock grasslands, shrub-steppe; kanji over <i>Triodia pungens</i></p> <p>Vegetation association 589: Mosaic: short bunch grassland – savanna / grass plain (Pilbara) / Hummock grasslands, grass steppe; soft spinifex</p> <p>Vegetation association 603: Hummock grasslands, sparse shrub steppe; <i>Acacia bivenosa</i> over hard spinifex</p> <p>Vegetation association 605: Hummock grasslands, shrub steppe; <i>Acacia pachycarpa</i> & waterwood over soft spinifex</p> <p>Vegetation association 607: Hummock grasslands, low tree steppe; snappy gum & bloodwood over soft spinifex & <i>Triodia wiseana</i></p> <p>Vegetation association 609: Mosaic: Hummock grasslands, open low tree steppe; bloodwood with sparse kanji shrubs over soft spinifex / Hummock grasslands, open low tree steppe; snappy gum over <i>Triodia wiseana</i> on a lateritic crust</p> <p>Vegetation association 644 Hummock grasslands, open low tree steppe; mulga & snakewood over soft spinifex & <i>Triodia basedowii</i></p> <p>Vegetation association 645: Hummock grasslands, shrub steppe; kanji & snakewood over soft spinifex & <i>Triodia wiseana</i></p> <p>Vegetation association 646: Hummock grassland with scattered shrubs or mallee <i>Triodia</i> sp. <i>Acacia</i> sp., <i>Grevillea</i> spp. <i>Eucalyptus</i> sp</p> <p><i>The mapped vegetation types retain greater than 90 per cent of the original extent (Government of Western Australia, 2019).</i></p>
Vegetation condition	<p>The vegetation within the application area is in completely degraded to excellent condition (Trudgen, 1991) condition.</p> <p>The full Trudgen (1991) condition rating scale is provided in Appendix E.</p>

Characteristic	Details																																						
Climate and landform	<p>The climate of the Pilbara region varies from tropical to semi-desert conditions. This region is characterised by very hot, humid summers and mild dry winters. Wet season extends from November to April and the region is often subject to cyclones during this time (DPIRD, 2016). The wet season is characterised by very hot temperatures often reaching over 45 degrees Celsius and heavy short downpours of rain. The dry season consists of daytime temperatures between 20 to 30 degrees Celsius, however nights will often drop below freezing; particularly in inland locations (DPIRD, 2016).</p> <p>Noting the extent of the application area, landforms of the Pilbara region vary from coastal to inland regions. Coastal landforms include coastal plains, dune systems and tidal flats. Inland landforms include plateaus, gorges, ranges, mesas, granite domes, greenstone belts, hills ridges, dunes, valleys and plains (DBCA, 2005)</p>																																						
Soil description	<p>Available databases indicate the application area consists of 34 difference soil systems including:</p> <table> <tr> <th>System Name</th><th>Description</th></tr> <tr> <td>Boolgeeda System (282Bg, 284Bg, 285Bg, 289Bg, 296Bg)</td><td>Stony lower slopes & plains; hard & soft spinifex grasslands or mulga shrublands</td></tr> <tr> <td>Brockman System (285Br)</td><td>Gilgai alluvial plains; tussock grasslands & low woodlands</td></tr> <tr> <td>Calcrete System (285Ca, 289Ca)</td><td>Low calcrete platforms & plains; shrubby hard spinifex grasslands</td></tr> <tr> <td>Cane System (202Cn)</td><td>Alluvial & flood plains; snakewood shrublands, spinifex (soft & hard), tussock grasslands</td></tr> <tr> <td>Capricorn System (282Cp, 289Cp, 296Cp)</td><td>Rugged sandstone hills & ridges; low acacia shrublands or hard spinifex grasslands</td></tr> <tr> <td>Cheerawarra System (286Ch)</td><td>Sandy coastal & saline clay plains; soft & hard spinifex, minor tussock grasslands</td></tr> <tr> <td>Egerton System (285Eg)</td><td>Highly dissected plains & slopes; sparse mulga shrublands or shrubby hard spinifex</td></tr> <tr> <td>Elimunna System (285Ei)</td><td>Stony basalt plains; sparse acacia & cassia shrublands, patchy tussock grasslands</td></tr> <tr> <td>Granitic System (286Gr)</td><td>Rugged granitic hills; shrubby hard & soft spinifex grasslands</td></tr> <tr> <td>Hooley System (284Hy, 285Hy)</td><td>Alluvial clay plains; mosaic of snakewood shrublands & tussock grasslands</td></tr> <tr> <td>Horseflat System (281Hf, 289Hf)</td><td>Gilgaied clay plains; Roebourne Plains grass grasslands, minor grassy snakewood shrublands</td></tr> <tr> <td>Jurrawarrina System (284Ju, 285Ju)</td><td>Hardpan plains & alluvial tracts; mulga shrublands with tussock & spinifex grasses</td></tr> <tr> <td>Littoral System (286Li)</td><td>Coastal mudflats, samphire flats, dunes; samphire shrublands, sparse acacia, mangroves</td></tr> <tr> <td>Marandoo System (285Md)</td><td>Basalt hills & stony plains; grassy mulga shrublands</td></tr> <tr> <td>McKay System (282Mk, 285Mk)</td><td>Hills, ridges, breakaways; hard spinifex grasslands with acacias & occasional eucalypts</td></tr> <tr> <td>Newman System (282Ne, 285Ne)</td><td>Rugged jaspilite plateaux & ridges; hard spinifex grasslands</td></tr> <tr> <td>Nooingnin System (285No)</td><td>Hardpan plains with groves & sandy banks; mulga shrublands & wanderrie grasses</td></tr> <tr> <td>Oakover System (285Ok)</td><td>Calcrete breakaways & mesas; hard spinifex shrubby grasslands</td></tr> </table>	System Name	Description	Boolgeeda System (282Bg, 284Bg, 285Bg, 289Bg, 296Bg)	Stony lower slopes & plains; hard & soft spinifex grasslands or mulga shrublands	Brockman System (285Br)	Gilgai alluvial plains; tussock grasslands & low woodlands	Calcrete System (285Ca, 289Ca)	Low calcrete platforms & plains; shrubby hard spinifex grasslands	Cane System (202Cn)	Alluvial & flood plains; snakewood shrublands, spinifex (soft & hard), tussock grasslands	Capricorn System (282Cp, 289Cp, 296Cp)	Rugged sandstone hills & ridges; low acacia shrublands or hard spinifex grasslands	Cheerawarra System (286Ch)	Sandy coastal & saline clay plains; soft & hard spinifex, minor tussock grasslands	Egerton System (285Eg)	Highly dissected plains & slopes; sparse mulga shrublands or shrubby hard spinifex	Elimunna System (285Ei)	Stony basalt plains; sparse acacia & cassia shrublands, patchy tussock grasslands	Granitic System (286Gr)	Rugged granitic hills; shrubby hard & soft spinifex grasslands	Hooley System (284Hy, 285Hy)	Alluvial clay plains; mosaic of snakewood shrublands & tussock grasslands	Horseflat System (281Hf, 289Hf)	Gilgaied clay plains; Roebourne Plains grass grasslands, minor grassy snakewood shrublands	Jurrawarrina System (284Ju, 285Ju)	Hardpan plains & alluvial tracts; mulga shrublands with tussock & spinifex grasses	Littoral System (286Li)	Coastal mudflats, samphire flats, dunes; samphire shrublands, sparse acacia, mangroves	Marandoo System (285Md)	Basalt hills & stony plains; grassy mulga shrublands	McKay System (282Mk, 285Mk)	Hills, ridges, breakaways; hard spinifex grasslands with acacias & occasional eucalypts	Newman System (282Ne, 285Ne)	Rugged jaspilite plateaux & ridges; hard spinifex grasslands	Nooingnin System (285No)	Hardpan plains with groves & sandy banks; mulga shrublands & wanderrie grasses	Oakover System (285Ok)	Calcrete breakaways & mesas; hard spinifex shrubby grasslands
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Characteristic	Details
	Paraburdoo System (282Pa, 285Pa, 289Pa)
	Basalt-derived stony gilgai plains; snakewood & mulga shrublands with spinifex, chenopods
	Pindering System (285Pd)
	Gravelly hardpan plains; groved mulga shrublands with hard & soft spinifex
	Platform System (285PI)
	Dissected slopes & raised plains; shrubby hard spinifex grasslands
	Pyramid System (289Py)
	Stony gilgai plains; hard spinifex grasslands, minor tussock grasslands
	River System (281Ri, 282Ri, 284Ri, 285Ri, 289Ri, 296Ri)
	Seasonal flood plains & river channels; tall acacia shrublands, eucalypt fringes
	Robe System (282Ro, 285Ro, 296Ro)
	Limonite plateaux & mesas; soft spinifex, occasionally hard spinifex grasslands
	Rocklea System (282Rk, 285Rk, 286Rk, 289Rk)
	Basalt hills & plateaux; hard spinifex, occasionally soft spinifex with scattered shrubs
	Ruth System (281Rt, 286Rt, 289Rt)
	Volcanic hills & ridges; shrubby hard spinifex, occasionally soft spinifex grasslands
Land degradation risk	Sherlock System (285Sk, 296Sk)
	Stony alluvial plains; snakewood shrublands with patchy tussock grasses & spinifex
	Spearhole System (285Sp)
	Undulating gravelly hardpan plains; groved mulga shrublands & hard spinifex
	Stuart System (296St)
	Undulating stony plains; hard & soft spinifex grasslands, snakewood shrublands
	Table System (285Ta)
	Low calcrete plateaux & plains; mulga & cassia shrublands, minor spinifex grasslands
	Uaroo System (289Ua)
	Broad sandy & pebbly plains; hard & soft spinifex hummock grasslands, scattered acacias
	Urandy System (284Ur, 285Uy, 296Uy)
	Stony & alluvial plains; shrubby soft spinifex grasslands
	Wannamunna System (285Wn)
	Hardpan plains & drainage tracts; mulga shrublands & woodlands, occasional eucalypts
	Wona System (282Wo, 285Wo)
	Basalt upland gilgai plains; Roebourne Plains grass, Mitchell grass tussock grasslands
Waterbodies	There are no mapped land degradation risks, however the application area does consist of sandy soils which may be subject to wind erosion and water erosion in areas where creek systems occur.
	The desktop assessment and aerial imagery indicates that the application area intersects six major river systems and 22 minor river systems including; Robe River, Jimmawurrada Creek, Fortescue River, Portland River, Western Creek, Harding River, Weelumurra Creek, Barnett Creek, Wackilina Creek, Duck Creek, Three Creek and Marillana Creek.
	The closest wetland of national significance is Mt Bruce Coolibah-lignum flats located approximately 3.5 kilometres from the application area.
Hydrogeography	The application area is mapped within the Pilbara Surface Water Area and the Pilbara groundwater area. The application area also intersects the following public drinking water areas: <ul style="list-style-type: none"> Harding Dam Catchment Area (Priority 1) Paraburdoo Water Reserve (Priority 1 & Priority 3) Millstream Water Reserve (Priority 1 & Priority 2); and, Pannawonica Water Reserve (Not assigned) Majority of the application area consists of ground water salinity of 500-1,000 TDS mg/L. the application area which is situated nearby the coast, consists of groundwater salinity of 1,000-3,000 TDS mg/L

Characteristic	Details
Flora	Available datasets indicate there are 2,657 records of conservation significant flora within the local area, consisting of 139 different species. Of these records 12 species have been recorded to intersect the application area.
Ecological communities	Within the local area there are 28 mapped ecological communities of which 14 intersect the application area.
Fauna	Available datasets indicate there are 31,358 records of conservation significant fauna within the local area, consisting of 117 different species. Of these records 13 species have been recorded to intersect the application area.

Appendix D. 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> <i>"Native vegetation should not be cleared if it comprises a high level of biodiversity."</i></p> <p><u>Assessment:</u></p> <p>As per CPS 4442/7 the application area contains locally or regionally significant flora, fauna, habitats, assemblages of plants.</p>	At variance (as per CPS 4442/7)	No
<p><u>Principle (b):</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 significant habitat for fauna."</i></p> <p><u>Assessment:</u></p> <p>As per CPS 4442/7 the application area may contain significant habitat for conservation significant fauna</p>	May be at variance (as per CPS 4442/7)	No
<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>As per CPS 4442/7 the application area may contain habitat suitable for flora species listed under the BC Act.</p>	May be at variance as per CPS 4442/7	No
<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>As per CPS 4442/7 the application area intersects the Themeda Grasslands on cracking clays (Hamersley Station, Pilbara) TEC.</p>	At variance as per CPS 4442/7	No
Environmental value: significant remnant vegetation and conservation areas		

Assessment against the clearing principles	Variance level	Is further consideration required?
<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>As per CPS 4442/7 the extent of the mapped vegetation type and native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia. The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area.</p>	<p>Not likely to be at variance</p> <p>as per CPS 4442/7</p>	No
<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>As per CPS 4442/7 the application area intersects Karijini National Park and Millstream Chichester National Park.</p>	<p>At variance</p> <p>as per CPS 4442/7</p>	No
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>As per CPS 4442/7 the application area intersects multiple minor watercourses, major tributaries and significant streams including but not limited to; Fortescue River, Harding River, Jimmawurrada Creek, Portland River, Robe River, Wackilina Creek, Weelumurra Creek, Western Creek.</p>	<p>May be at variance</p> <p>as per CPS 4442/7</p>	No
<p><u>Principle (g):</u> <i>"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."</i></p> <p><u>Assessment:</u></p> <p>As per CPS 4442/7 the mapped soils range from rocky hills and bare outcrops to deep cracking clays, shallow siliceous sands, areas of iron ore formations, granite, shallow and stony earth loams. The mapped soils are not susceptible to land degradation risks.</p>	<p>Not likely to be at variance</p> <p>as per CPS 4442/7</p>	No
<p><u>Principle (i):</u> <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."</i></p> <p><u>Assessment:</u></p> <p>Whilst the application area intersects multiple Pilbara region PDWSA the proposed clearing is considered to be compatible with the PDWSA's.</p>	<p>Not likely to be at variance</p> <p>as per CPS 4442/7</p>	No
<p><u>Principle (j):</u> <i>"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."</i></p> <p><u>Assessment:</u></p> <p>As per CPS 4442/7, local flooding occurs seasonally in the Pilbara region as a result of cyclonic activity and sporadic thunderstorm activity. The proposed clearing is not expected to contribute to increased incidence or intensity of flooding.</p>	<p>Not likely to be at variance</p> <p>as per CPS 4442/7</p>	No

Appendix E. 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 F. Sources of information

F.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Offsets Register – Offsets (DWER-078)

- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems

Restricted GIS Databases used:

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

F.2. References

City of Karratha (2025) *Advice for clearing permit application CPS 4442/8*, received 15 August 2025 (DWER Ref DWERDT1179312)

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Department of Environment Regulation (DER) (2013). *A guide to the assessment of applications to clear native vegetation*. Perth. Available from: https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf.

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Pilbara Iron Company (Services) Pty Ltd (2025) *Clearing permit application CPS 4442/8*, received 26 June 2025 (DWER Ref: DWERDT1151140).

Pilbara Iron Company (Services) Pty Ltd. (2025) *Supporting information for clearing permit application CPS 4442/8: Response to request for information*, received 24 October 2025 (DWER Ref: DWERDT1218185).

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