



Clearing Permit Decision Report

1. Application details and outcomes

1.1. Permit application details

Permit number:	5879/3
Permit type:	Purpose Permit
Applicant name:	Atlas Iron Pty Ltd
Application received:	15 June 2023
Application area:	115 hectares
Purpose of clearing:	Purpose as shown on Permit.
Method of clearing:	Mechanical Removal
Tenure:	Mining Lease 45/1197-I Mining Lease 45/1209-I
Location (LGA area/s):	Shire of East Pilbara
Colloquial name:	Mt Webber DSO Project – Dalton Pit

1.2. Description of clearing activities

Atlas Iron Pty Ltd proposes to clear up to 115 hectares of native vegetation within a boundary of approximately 133.56 hectares, for the purpose of mineral production and associated activities. The project is located approximately 150 kilometres southeast of Port Hedland, within the Shire of East Pilbara (GIS Database).

Clearing permit CPS 5879/1 was granted by the Department of Mines and Petroleum (now the Department of Mines, Industry Regulation and Safety) on 30 January 2014 and was valid from 22 February 2014 to 22 February 2019. The permit authorised the clearing of up to 115 hectares of native vegetation within a boundary of approximately 133 hectares, for the purpose of mineral production and associated activities.

CPS 5879/2 was granted on 17 January 2019, amending the permit to extend the permit duration to 22 February 2024. The area of clearing authorised and the permit boundaries remained unchanged.

On 15 June 2023, the Permit Holder applied to amend CPS 5879/3 to extend the permit duration to 22 February 2029. The amount of clearing authorised and the clearing permit boundary and the activities remains the same.

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	16 November 2023
Decision area:	115 hectares of native vegetation

1.4. Reasons for decision

This clearing permit application was made in accordance with section 51KA(1) of the *Environmental Protection Act 1986* (EP Act) and was received by the Department of Mines, Industry Regulation and Safety (DMIRS) on 15 June 2023. DMIRS advertised the application for a public comment for a period of seven days, and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (Appendix A), relevant datasets (Appendix D), supporting information provided by the applicant, including the flora and fauna impact assessments (Outback, 2013a; Woodman, 2013), the clearing principles set out in Schedule 5 of the EP Act (Appendix C), 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 has not changed significantly since the assessment for CPS 5879/2. The Delegated Officer determined that the proposed extension of duration is not likely to lead to an unacceptable risk to environmental values.

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 is unlikely to have long-term adverse impacts on environmental values. The applicant has suitably demonstrated avoidance and minimisation measures,

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;
- vegetation management condition; and
- fauna spotter to transverse the project area ahead of clearing and to undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity.

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 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)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Mining Act 1978* (WA)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2014)
- *Procedure: Native vegetation clearing permits* (DWER, October 2021)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2016)

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

The proponent has indicated implementation of following avoidance and mitigation measures.

- implementation of significant species management plan to mitigate impacts to conservation significant fauna species (Atlas, 2013);
- ensuring all ground disturbance or changes in land use are undertaken in accordance with Ground Disturbance Permit Procedure (Atlas, 2023b);
- implementation of clearing and grubbing procedure to minimise the impacts to the environment and ensure compliance with regulatory requirements (Atlas, 2023a); and
- implementation of weed hygiene procedure, weed control equipment use procedure, vehicle wash pad design guideline to prevent introduction of new weeds and minimising the spread of any existing weeds within the site (Atlas, 2023b).

Additionally, the significant species management plan (Atlas, 2013) developed by the proponent indicates:

- maintaining an inventory of species of conservation significance that have the potential to be affected by the Project;
- avoid or minimise impacts to conservation significant species and habitats;
- monitor for potential impacts to conservation significant species; and
- detail the reporting requirements relating to conservation significant species.

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

In assessing the application, the Delegated Officer has had regard for the site characteristics (see appendix A) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, land, and water resource values. A review of current environmental information reveals that the assessment against the clearing principles has not changed significantly from the previous versions of this decision report.

The applicant has reported that total of 79.71 hectares of native vegetation has been cleared as of 30 June 2023 under the clearing permit CPS 5879/2 (Atlas, 2023b).

No new biological information has been provided in support of the application. However, the applicant has previously provided multiple flora, fauna, soil, and landform impact assessments (Outback, 2013a; 2013b; Woodman, 2013) transecting the application area as supporting information for the clearing permit 5879/1, along with the targeted fauna survey for the Pilbara olive python (Knuckey, 2017) as a requirement for the condition 8 of the clearing permit CPS 5879/2 were utilised in this assessment.

The amendment application has been assessed against the clearing principles, planning instrument and other matters in accordance with s.51O of the *Environmental Protection Act 1986*, and the proposed clearing is at variance to Principles (f); may be at variance to Principle (b); and not likely to be at variance to Principles (a), (c), (d), (e), (g), (h), (i), and (j).

3.3. Relevant planning instruments and other matters

The amendment application was advertised on 25 July 2023 by the Department of Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

There are no native title claims over the area under application (DPLH, 2023). However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e.: the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Cultural Heritage sites within the application area (DPLH, 2023). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Cultural Heritage sites are damaged through the clearing process.

Other relevant authorisations required for the proposed land use include:

- A Mining Proposal / Mine Closure Plan approved under the *Mining Act 1978*.

It is the proponent's responsibility to liaise with the Department of Water and Environmental Regulation and the Department of Biodiversity, Conservation and Attractions, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

End

Appendix A. Site characteristics

A.1. Site characteristics

Characteristic	Details
Local context	<p>The area proposed to be cleared is a 115 hectare of native vegetation in the extensive land use zone of Western Australia (GIS Database). The project is located approximately 150 kilometres southeast of Port Hedland and 50 km east of the Great Northern Highway, within the Shire of East Pilbara (Woodman, 2013).</p> <p>Spatial data indicates the local area (50 kilometre radius from the centre of the area proposed to be cleared) retains approximately 99 per cent of the original native vegetation cover (GIS Database).</p>
Ecological linkage	No ecological linkages have been identified in the application area (Woodman, 2013).
Conservation areas	The application area is not located within any conservation area (GIS Database). The nearest conservation area is Mungaroon Range Nature Reserve, located approximately 80 kilometres west of the application area (GIS Database).
Vegetation description	<p>The vegetation of the application area is broadly mapped as the following Beard vegetation association:</p> <ul style="list-style-type: none"> 82: Hummock grasslands, low tree steppe; snappy gum over <i>Triodia wiseana</i>. (GIS Database). <p>A flora and vegetation survey was conducted over the application area by Woodman on 2012, has recorded following vegetation associations within the application area (Woodman, 2012):</p> <p>VT6 - Mid woodland of <i>Eucalyptus camaldulensis</i> subsp. <i>obtusa</i> and/or, <i>E. victrix</i> and <i>Melaleuca argentea</i> over tall shrubland of mixed species including, <i>A. trachycarpa</i>, <i>A. pyrifolia</i> var. <i>pyrifolia</i>, <i>Melaleuca glomerata</i> and <i>M. linophylla</i> over low open hummock grassland to isolated clumps of hummock grasses of mixed <i>Triodia</i> species including <i>Triodia epactia</i> and/or <i>T. longiceps</i> over low open sedgeland of mixed <i>Cyperus</i> species including <i>Cyperus ixiocarpus</i> on red, red-brown and orange sand, silty sand and silty clay loam in major drainage lines;</p> <p>VT8 - Low isolated trees of <i>Corymbia hamersleyana</i> over tall sparse shrubland dominated by <i>Acacia inaequilatera</i> over low sparse shrubland of mixed species including <i>Goodenia stobbsiana</i> over low hummock grassland to closed hummock grassland dominated by <i>Triodia wiseana</i> on red, brown, red-brown and orange clay loam, sandy loam and silty loam over ironstone, granite or calcrete on hill crests, slopes and undulating plains;</p> <p>VT9 - Tall open to sparse shrubland of mixed <i>Acacia</i> species dominated by <i>Acacia inaequilatera</i> over low shrubland to sparse shrubland of mixed species including <i>Indigofera monophylla</i> and <i>S. glutinosa</i> subsp. <i>glutinosa</i> over low hummock grassland to closed hummock grassland dominated by <i>Triodia wiseana</i> and/or <i>Triodia brizoides</i> on red, brown, red-brown and orange clay loam, sandy loam, silty loam and loam over ironstone and granite on hill crests, hill slopes and undulating plains;</p> <p>VT10 - Low isolated trees of <i>Corymbia hamersleyana</i> and/or <i>Eucalyptus leucophloia</i> subsp. <i>leucophloia</i> over tall sparse shrubland of mixed species dominated by <i>Acacia inaequilatera</i> over low sparse shrubland of mixed species including <i>Indigofera monophylla</i> and <i>S. glutinosa</i> subsp. <i>glutinosa</i> over low hummock grassland to closed hummock grassland dominated by <i>Triodia epactia</i> and/or <i>Triodia wiseana</i> over low isolated clumps of tussock grasses including <i>Cymbopogon ambiguus</i> on red, brown, red-brown and orange sand, sandy loam, silty loam and clay loam over predominantly granite and sometimes ironstone on hill slopes, crests, undulating plains and drainage lines;</p> <p>VT11 - Low open woodland to isolated trees of <i>Corymbia hamersleyana</i> and/or <i>Eucalyptus leucophloia</i> subsp. <i>leucophloia</i> over tall sparse shrubland of mixed species including <i>Acacia inaequilatera</i> and <i>Grevillea wickhamii</i> over low sparse shrubland of mixed species including <i>Goodenia stobbsiana</i> over low hummock grassland to closed hummock grassland of mixed <i>Triodia</i> species usually dominated by <i>Triodia brizoides</i> and/or <i>Triodia epactia</i> over low isolated clumps of tussock grasses including <i>Eriachne mucronata</i> on red, brown, red-brown and orange sandy loam, clay loam, silty loam and loam over granite and ironstone on hill slopes, crests and drainage lines; and</p> <p>VT12 - Tall open shrubland of mixed species including <i>Grevillea wickhamii</i> subsp. <i>hispidula</i> over low hummock grassland of mixed <i>Triodia</i> species usually dominated by <i>T. epactia</i> over low sparse tussock grassland to isolated clumps of tussock grasses including <i>Eriachne mucronata</i></p>

Characteristic	Details
	on red, red-brown and orange sand, sandy loam and clay loam over granite and ironstone lower slopes.
Vegetation condition	<p>The aerial imagery indicates the vegetation within the proposed clearing area is in excellent to completely degraded (Trudgen, 1991) condition, where the degraded condition applies to the majority of the application area already impacted by the ongoing Mt. Webber- Dalton Pit mining operations (GIS Database).</p> <p>The full Trudgen (1991) condition rating scale is provided in Appendix C.</p>
Climate and landform	<p>The climate of the Pilbara is semi- arid to arid where severe droughts and major floods can occur at close intervals with annual rain fall of 385 millilitres (BoM, 2023).</p> <p>The landforms of the project area are identified as steep sided ridges and hills, associated with outcrops of greenstone, chert, sandstone and dolomite. The Mount York and Strelley Gorge is located northwest and east to the application area respectively (Woodman, 2013).</p>
Land system and Soil description	<p>The application area is broadly mapped as Talga land system (DPIRD, 2023). The Talga land system is characterised as hills and ridges of greenstone and chert and stony plains supporting hard and soft spinifex grasslands with Archaean basic volcanics, ultramafic rocks and other metamorphics, basalt, andesite, shale, slate, chert and Quaternary colluvium (Van Vreeswyk et al, 2004).</p> <p>Soils in the application area is identified as Rocky skeletal soil, mostly single grained, Angular and sub-angular coarse fragments. Approximately five per cent leaf litter cover on soil surface and no surface crusting or cryptograms (Outback, 2013b).</p>
Land degradation risk	Talga land system is not susceptible to the erosion (Van Vreeswyk et al, 2004). Additionally, the application area has low to very low acidification risk (DPIRD, 2023).
Waterbodies	<p>Permenant pools; Cooglegong Pool of the Cooglegong Creek and the Olympic Pool of the Paddy Market Creek, runs approximately 11.9 kilometres and 17.5 kilometres from the application area respectively (Woodman, 2013). Multiple ephemeral watercourses transects the application area (GIS Database).</p> <p>One vegetation unit (VT6) occurring in the application area is identified as ground water dependent ecosystem and Vegetation units 'VT10' and 'VT11' also include riparian vegetation and are considered to be associated with drainage lines (Woodman, 2012).</p>
Hydrogeography	Mable Bar Water Reserve drinking water source protection area (CAWS act) is located 54 kilometres northeast of the application area (GIS Database). Application area is located within Shaw River catchment area of the De Grey River Basin (Woodman, 2013) in Pilbara surface and ground water area proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (GIS Database). Marginal salinity (TDS 500-1000 mg/L) was recorded in the groundwater (GIS Database) with unconfined combined fractured rock aquifer (GIS Database).
Flora	No Threatened flora have been recorded within the application area (GIS Database). One Priority flora taxa: <i>Ptilotus mollis</i> Benl (P4) has been identified in the application area totalling 640 individuals (Woodman, 2013).
Ecological communities	No known Threatened Ecological Communities (TEC) or Priority Ecological Communities (PEC) located within the 50 kilometres of application area (GIS Database).
Fauna	<p>The habitats within the application area is mapped as (Outback, 2013a);</p> <ul style="list-style-type: none"> - Rocky foothills, - Rocky Ridges and Gorges, - Drainage line; and - Stony rise. <p>Outback Ecology Services described (Outback, 2013a), rocky ridges and gorges and drainage line habitat types as significant habitats as it provides roosting and foraging habitats for conservation significant fauna (i.e., northern quoll, ghost bat, Pilbara leaf-nosed bats, and Pilbara olive python). Additionally, the cliff lines and caves were also identified as significant habitat features (Outback, 2013a). However, the recent fauna remapping by Knuckey (201& has indicated that no faunal habitats within the application area were considered significant due to lack of microhabitat features.</p> <p>Six conservation significant fauna species identified as to occur in the application area (Outback, 2013a):</p>

Characteristic	Details
	<ul style="list-style-type: none"> • <i>Dasyurus hallucatus</i> (Northern quoll) – EN • <i>Macroderma gigas</i> (ghost bat) – VU • <i>Macrotis lagotis</i> (Bilby) – VU • <i>Pseudomys chapmani</i> (western pebble-mound mouse) – P4 • <i>Rhinonictis aurantia</i> (Pilbara) (Pilbara leaf-nosed bat) – VU • <i>Liasis olivaceus barroni</i> (Pilbara olive python) – VU

Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<p>Principle (a): “Native vegetation should not be cleared if it comprises a high level of biodiversity.”</p> <p>Assessment: There are no Threatened flora, Threatened Ecological Community (TEC) or Priority Ecological Community (PEC) identified in the application area (GIS Database). One Priority flora taxa: <i>Ptilotus mollis</i> Benl (P4) has been identified in the application area. The proposed clearing is expected to impact 640 individuals of this species (Woodman, 2012). However, this species has been recorded in 43 locations in the state across Ashburton, East Pilbara and Port Hedland regions (Western Australian Herbarium, 1998-). Therefore, proposed clearing is not likely to result in complete loss of this taxon from the local area (Woodman, 2013).</p> <p>The surveys (Outback, 2013a) have identified presence of conservation significant fauna species within the application area (Appendix A). Targeted fauna survey for Pilbara olive python did not identify any evidence, and concluded that the application area is unlikely to be particular importance for this species (Knuckey, 2017). The proponent has indicated the implementation of avoidance and management measure to minimise the impacts to the conservation significant fauna species and habitats used by those species (Atlas, 2013).</p> <p>However, fauna management condition in the form of fauna spotter and directional clearing will be implemented on this permit to minimise the potential risk of injury or mortality to the fauna by clearing activities.</p>	<p>May be at variance</p> <p>(As per CPS 5879/3)</p>	No
<p>Principle (b): “Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna.”</p> <p>Assessment:</p> <p>The fauna assessment (Outback, 2013a) has identified two suitable habitat features, including cliffs faces and caves which are preferred by the conservation significant species (i.e: northern quoll, Pilbara leaf-nosed bats, ghost bats, and Pilbara olive python). Further, the recent targeted fauna survey has remapped the fauna habitat types in the application area and indicated none are significant due to lack of micro habitat features (Knuckey, 2017).</p> <p>Therefore, the proposed clearing is likely to impact the significant habitat for fauna.</p>	<p>May be at variance</p> <p>(changed from CPS 5879/3)</p>	No
<p>Principle (c): “Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</p> <p>Assessment:</p> <p>No Threatened flora has been identified within the application area (Woodman, 2013). Therefore, the proposed clearing is not likely to be at variance to this principle.</p>	<p>Not likely to be at variance</p> <p>(As per CPS 5879/3)</p>	No
<p>Principle (d): “Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community.”</p> <p>Assessment:</p> <p>No Threatened Ecological Community (TEC) or Priority Ecological Community (PEC) have been identified within the application area (Woodman, 2013). The nearest TEC (Brockman Iron cracking clay communities of the Hamersley Range) is approximately 160 kilometres south west of the application area (GIS Database). The proposed clearing is unlikely to impact the environmental values of this TEC. Therefore, this clearing is not likely to be at variance of this principle.</p>	<p>Not likely to be at variance</p> <p>(As per CPS 5879/3)</p>	No

Assessment against the clearing principles	Variance level	Is further consideration required?
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 native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia with more than 90 percent of beard vegetation remaining in the state and bioregion (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 (Woodman, 2013).</p>	<p>Not likely to be at variance</p> <p>(As per CPS 5879/3)</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, the proposed clearing is not likely to have an impact on the environmental values of Mungaroona Range Nature Reserve conservation areas (GIS Database).</p>	<p>Not likely to be at variance</p> <p>(As per CPS 5879/3)</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>There are no permanent watercourses or wetlands within the application area (GIS Database). However, several ephemeral watercourses have been identified (GIS Database). One vegetation unit is a ground water dependent ecosystem (GWD) and two vegetation units contain riparian vegetation (Appendix A).</p> <p>Clearing of vegetation can impact the surface water flow and the ground water dependent ecosystems including riparian vegetation (Woodman, 2013). However, the area of vegetation units impacted by the proposed clearing would be less than 3% of the mapped area (Woodman, 2013). The proposed clearing is not likely to result significant impacts to these vegetation units.</p> <p>However, potential impacts will be managed by implementation of vegetation management condition on the permit in the form of minimising the impacts to the riparian vegetation. Therefore, this principle is at variance.</p>	<p>At variance</p> <p>(As per CPS 5879/3)</p>	<p>No</p>
<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>According to the site characteristics outlined above, the application area has low risk of land degradation by erosion, acidification or salinisation (GIS Database).</p> <p>However, clearing of native vegetation possess the risk of land degradation by invasion and spread of weed species (Woodman, 2013). This will be managed by the implementation of weed management condition.</p>	<p>Not likely to be at variance</p> <p>(As per CPS 5879/3)</p>	<p>No</p>
<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>After significant rainfall events. The incised drainage paths of ridges and hilly areas would create a high flow in hard rocky surfaces where erosion and sediment transportation may occur due to high velocity. However, effects will dissipate as flows move downstream and merge with flows entering the Shaw River system from the larger catchment area (MWH, 2013).</p> <p>If clearing of riparian vegetation is required there may be some localised short-term sedimentation during the clearing process. Potential impacts to riparian vegetation will be minimised through the implementation of a vegetation management condition. Therefore, the proposed clearing is unlikely to result in any further deterioration in</p>	<p>Not likely to be at variance</p> <p>(As per CPS 5879/3)</p>	<p>No</p>

Assessment against the clearing principles	Variance level	Is further consideration required?
surface or groundwater quality in the local area.		
<p><u>Principle (i):</u> "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><u>Assessment:</u></p> <p>The clearing of vegetation will not increase the incidence or intensity of flooding given that surface-water run off within the application area is dominated by deeply incised hard-rock drainage paths and expansive low-gradient floodplains (MWH, 2013). Clearing 115 hectares of vegetation, dominated by a shrub grassland association for the project is unlikely to substantially change the local flooding regime (MWH, 2013). Further, vegetation clearing is highly unlikely to result in soil waterlogging or cause the water table to rise (MWH, 2013).</p>	Not likely to be at variance (As per CPS 5879/3)	No

Appendix C. Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation's ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Trudgen, M.E. (1991) *Vegetation condition scale* in National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA), Wildflower Society of WA (Inc.), and the Tree Society (Inc.), Perth.

Measuring vegetation condition for the Eremaean and Northern Botanical Provinces (Trudgen, 1991)

Condition	Description
Excellent	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
Very good	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.
Good	More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds.
Poor	Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.
Very poor	Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually with a number of weed species present including very aggressive species.
Completely degraded	Areas that are completely or almost completely without native species in the structure of their vegetation, i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs.

Appendix D. Sources of information

D.1. GIS databases

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

- Aboriginal Heritage Places (DPLH-001)
- Aboriginal Heritage Places (DPLH-001)
- Clearing Regulations – Schedule One Areas (DWER-057)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Environmentally Sensitive Areas (DWER-046)
- 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)
- Pre-European Vegetation Statistics

- Remnant Vegetation, All Areas
- 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 Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna

D.2. References

- Atlas Iron Pty Ltd (Atlas) (2013) Significant Species Management Plan, Mt Webber DSO Project, May 20123.
- Atlas Iron Pty Ltd (Atlas) (2021a) Clearing and Grubbing Procedure, All Sites, Atlas Iron Pty Ltd, received on 28 June 2023
- Atlas Iron Pty Ltd (Atlas) (2021b) Weed Control Equipment Use Procedure, Environment, Atlas Iron Pty Ltd, received on 28 June, 2023
- Atlas Iron Pty Ltd (Atlas) (2021c) Vehicle washpad Design Guideline, Environment, Atlas Iron Pty Ltd, received on 28 June 2023
- Atlas Iron Pty Ltd (Atlas) (2023a) Clearing Permit Amendment Application form, CPS 5879/3, received 28 June 2023.
- Atlas Iron Pty Ltd (Atlas) (2023b) Mt Webber DSO Project: NVCP Annual Report 2022 -2023 version 2, CPS 5879/2. Received 24 July 2023.
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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
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia
DMP	Department of Mines and Petroleum, Western Australia (now DMIRS)
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 (2019) Conservation Codes for Western Australian Flora and Fauna. Department of Biodiversity, Conservation and Attractions, Western Australia):-

T Threatened species:

Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as threatened species under section 26(2) of the *Biodiversity Conservation Act 2016* (BC Act).

Threatened fauna is that subset of 'Specially Protected Fauna' listed under schedules 1 to 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for Threatened Fauna.

Threatened flora is that subset of 'Rare Flora' listed under schedules 1 to 3 of the *Wildlife Conservation (Rare Flora) Notice 2018* for Threatened Flora.

The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

CR **Critically endangered species**

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

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines. Published under schedule 1 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for critically endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for critically endangered flora.

EN **Endangered species**

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

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines. Published under schedule 2 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for endangered flora.

VU **Vulnerable species**

Threatened species considered to be "*facing a high risk of extinction in the wild in the medium-term*".

future, as determined in accordance with criteria set out in the ministerial guidelines”.

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines. Published under schedule 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for vulnerable fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for vulnerable flora.

Extinct Species:

EX Extinct species

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

Published as presumed extinct under schedule 4 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for extinct fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for extinct flora.

EW Extinct in the wild species

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

Currently there are no threatened fauna or threatened flora species listed as extinct in the wild. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.

Specially protected species:

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

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

MI Migratory species

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

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

Published as migratory birds protected under an international agreement under schedule 5 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

CD Species of special conservation interest (conservation dependent fauna)

Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).

Published as conservation dependent fauna under schedule 6 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

OS Other specially protected species

Fauna otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).

Published as other specially protected fauna under schedule 7 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

P Priority species:

Possibly threatened species that do not meet survey criteria, or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of priority for survey and evaluation of conservation status so that consideration

can be given to their declaration as threatened fauna or flora.

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

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

P1 Priority One - Poorly-known species

Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.

P2 Priority Two - Poorly-known species

Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.

P3 Priority Three - Poorly-known species

Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.

P4 Priority Four - Rare, Near Threatened and other species in need of monitoring

(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands.

(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as Conservation Dependent.

(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

Principles for clearing native vegetation:

- (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.
- (b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna.
- (c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.
- (d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.
- (e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.
- (f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.
- (g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.
- (h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.
- (i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.
- (j) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.