



Clearing Permit Decision Report

1. Application details and outcomes

1.1. Permit application details

Permit number:	9199/2
Permit type:	Purpose permit
Applicant name:	Norwest Sand & Gravel Pty Ltd
Application received:	24 February 2026
Application area:	50 hectares
Purpose of clearing:	Sand mining
Method of clearing:	Mechanical removal
Tenure:	Mining Lease 45/1195
Location (LGA area):	Town of Port Hedland
Colloquial name:	Turner River Sand Project

1.2. Description of clearing activities

Norwest Sand & Gravel Pty Ltd proposes to clear up to 50 hectares of native vegetation within a boundary of approximately 123.16 hectares, for the purpose of sand mining. The project is located approximately 14 kilometres southwest of Port Hedland, within the Town of Port Hedland.

Clearing permit CPS 9199/1 was granted by the Department of Mines, Industry Regulation and Safety (now Department of Mines, Petroleum and Exploration) on 21 May 2021, and was valid from 15 June 2021 to 14 June 2026. The permit authorised the clearing of up to 50 hectares of native vegetation within a boundary of approximately 123.159 hectares, for the purpose of sand mining.

On 24 February 2026, the permit holder applied to amend CPS 9199/1 to extend the duration of the permit, for an additional 5 years (Norwest Gravel & Sand Pty Ltd, 2026).

Based on the most recent annual clearing report (reporting period 1 July 2024 to 30 June 2030, received 24 July 2025), a total of 2.4 hectares of native vegetation have been cleared under CPS 9199/1.

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	11 June 2026
Decision area:	50 hectares of native vegetation

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed, and determined in accordance with sections 51KA(1) and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Mines, Petroleum and Exploration (DMPE) 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 E), biological survey information, 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;
- the loss of native vegetation that is suitable habitat for conservation significant fauna;
- potential impacts to groundwater dependent vegetation and ecosystems;

- potential land degradation in the form of erosion.

After consideration of the available information, 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;
- no clearing of trees with a diameter, at 1.5 metres above the ground, of 500 millimetres or greater, and dripline vegetation of identified trees;
- no clearing of vegetation within the area shaded red on Figure 1 of Schedule 1 on the permit document (red and salmon areas within Figure 1 of this document);
- commence construction no later than three months after undertaking clearing to reduce the risk of erosion;
- vegetation management to avoid riparian vegetation and maintain existing water flow; and
- restrict clearing activities to daytime hours.

The assessment has not changed since the assessment for CPS 9199/1, except in the case of principles (a), and (b), however additional information has been incorporated into the assessment of principle (f). The Delegated Officer determined that the proposed extension of duration is not likely to lead to an unacceptable risk to environmental values. However, in future amendments of this permit new flora and fauna surveys will be required to adequately assess the impact of clearing on environmental values.

1.5. Site map

A site map of proposed clearing is provided in Figure 1 below.



Figure 1. Map of the application area. The yellow area indicates the area within which conditional authorised clearing can occur under the granted clearing permit. The red area indicates the area under CPS 9199/1 subject to the restricted CPS 9199/2

clearing condition, which will be retained on CPS 9199/2. This area is referred to as the small, vegetated island. The salmon area indicates the area being added to the restricted clearing condition under CPS 9199/2, this area is referred to as Moorambine Pool.

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 (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)

Relevant agreements (treaties) considered during the assessment include:

- Japan-Australia Migratory Bird Agreement
- China-Australia Migratory Bird Agreement
- Republic of Korea-Australia Migratory Bird Agreement

The key guidance documents which inform this assessment are:

- A guide to the assessment of applications to clear native vegetation (DER, 2014)
- Procedure: Native vegetation clearing permits (DWER, 2021)
- Guidance for the Assessment of Environmental Factors – Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia (EPA, 2004a)
- Guidance for the Assessment of Environmental Factors – Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia (EPA, 2004b)
- Technical guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (EPA, 2004)
- Technical guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (EPA, 2016)

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

No evidence of avoidance or mitigation measures was provided to support the application. Impacts to environmental values can continued to be managed under permit conditions.

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 9199/1, except for principles (a) and (b). Further information has been considered for principle (f) however its variance has not changed. It should be noted if the applicant wishes to amend this permit in future new flora and fauna surveys will be required to adequately assess the impact of clearing on environmental values.

3.2.1. *Biological values (flora, vegetation, and groundwater dependent vegetation) - Clearing principles (a) and (f)*

Assessment

Flora and Vegetation

West Ecology conducted a flora and vegetation survey over the application area in 2011 (West Ecology, 2011). Biologic Environmental Survey Pty Ltd (Biologic) conducted a flora and vegetation survey over part of the application area in 2024 (Figure 2; DWER, 2025; Biologic, 2024b). Aerial imagery, vegetation mapping, and biological survey information indicates the vegetation types within Table 1 are likely representative of one another.

Table 1. Comparison of vegetation types between Western Ecology (2011) vegetation survey and Biologic (2024) vegetation survey.

West Ecology, 2011		Biologic, 2024

Vegetation type	Vegetation type Description		Vegetation type	Vegetation type Description
25	Low open woodland of <i>Melaleuca argentea</i> in riverbeds of the Turner River	is similar to	DL Ma MgMI Cc CvCi Eb GIPr	<i>Melaleuca argentea</i> low open woodland over <i>Melaleuca glomerata</i> , <i>Melaleuca linophylla</i> tall sparse shrubland over <i>Crotalaria cunninghamii</i> mid isolated shrubs over <i>Cyperus vaginatus</i> , <i>Cyperus ixiocarpus</i> mid sparse sedgeland over <i>Eriachne benthamii</i> isolated clumps of tussock grasses over <i>Goodenia lamprosperma</i> , <i>Pluchea rubelliflora</i> low sparse herbland
22	Scattered low trees of <i>Eucalyptus camaldulensis</i> subsp. <i>obtus</i> over high open shrubland of <i>Acacia</i> species and open hummock grassland in riverbanks of the Turner River	is similar to	DL EcMa AtAcAtp Te CcCs	<i>Eucalyptus camaldulensis</i> , <i>Melaleuca argentea</i> mid open woodland over <i>Acacia trachycarpa</i> , <i>Acacia colei</i> , <i>Acacia tumida</i> var. <i>pilbarensis</i> tall sparse shrubland over <i>Triodia epactia</i> mid sparse tussock grassland with <i>*Cenchrus ciliaris</i> , <i>*Cenchrus setiger</i> low open tussock grassland

Given the above, it can be assumed that vegetation in the areas of CPS 9199/2 that were not surveyed by Biologic (2024b) are indicative of vegetation type DL Ma MgMI Cc CvCi Eb GIPr and bare river channel (Figure 2,3).

Priority flora

Abutilon sp. Pritzelianum (S. van Leeuwen 5095) (P3) is a greyish green shrub to two metres high, known from various habitats within the Carnarvon, Murchison, Pilbara bioregions (Biologic, 2024b; WA Herbarium, 1998-). In the Biologic (2024b) flora survey this species was recorded adjacent to the application area, no individuals were recorded within the application area however DL EcMa AtAcAtp Te CcCs, SD AtAtpPI TcCiCc Te Eo Ahh, and SD AtAtpPI TcCiCc Te Eo Ahh vegetation types provide suitable habitat for this species. Within the broader Biologic (2024b) flora survey (approximately 9,161 hectares), over 1,200 individuals were recorded from 321 locations both within and adjacent to survey sites. Impacts to this species are likely to be low if present given this species distribution, abundance in the local surrounds and variability of habitat.

Rothia indica subsp. *australis* (P3) is a prostrate herb known from woodlands, shrublands and mixed grasslands with sandy soils in Dampierland, Great Sandy Desert, Pilbara, Victoria Bonaparte bioregions, the species is also occasionally recorded on the edges of creek lines (Biologic, 2024b; WA Herbarium, 1998-). *Rothia indica* subsp. *australis* was recorded in the Biologic (2024b) flora survey, approximately 20 kilometres southwest of the application area within the SP Cz AiHII As Be TsTe vegetation type, which is present within the application area.

Euploca mutica (P3) is a low perennial shrub which inhabits flats, plains and sandplains, often recorded within *Corymbia* spp. and *Acacia* spp. low open woodlands over *Triodia* hummock grasslands (Biologic, 2024b; WA Herbarium, 1998-). The application area likely provides suitable habitat for this species within SP Cz AiHII As Be TsTe vegetation type; however, this area is less than 0.05 hectares and is partially cleared (Biologic, 2024b; GIS Database). Given the application area provides limited suitable habitat for this species, it is unlikely a significant population would present within the application area, therefore potential impacts of the proposed clearing would be low.

Gomphrena leptophylla (P3) is an annual herb with white flowers (flowering March to September) which inhabits Open flats, sandy creek beds, edges salt pans and marshes, stony hillsides (WA Herbarium, 1998-). Aerial imagery indicates this species is recorded adjacent or near watercourses and tributaries, rather than within (GIS Database). Given this the application area is unlikely to provide suitable habitat for this species, adjacent CPS 9283/1 is more likely to provide suitable habitat for this species.

Gymnanthera cunninghamii (P3) is an erect shrub known from sandy soils within major drainage lines or floodplains (WA Herbarium, 1998-). Often associated with Eucalypt woodlands (*Eucalyptus camaldulensis* and *Eucalyptus victrix*) with *Melaleuca*s or *Acacia*s shrubland over *Triodia* or *Cenchrus* grasslands (WA Herbarium, 1998-). This species is known from Carnarvon, Gascoyne, Great Sandy Desert, and Pilbara bioregions, and has records in conservation estate within all excluding the Gascoyne bioregion (WA Herbarium, 1998-; GIS Database). This species is known from the Turner River however, given its distribution and presence in conservation estate the impacts to this species if its present are likely to be low. Additionally, majority of *Eucalyptus camaldulensis* vegetation is conditioned under the restricted clearing condition.

Riparian and groundwater dependent vegetation

The application area is situated on the Turner River which is a major ephemeral watercourse. The proposed clearing will likely impact on vegetation growing within the watercourse. Vegetation within the application area is indicative of riparian and groundwater dependent vegetation (GDV) (Biologic, 2024b; West Ecology, 2011).

The application area is mapped as high potential terrestrial and aquatic groundwater dependent ecosystems (GDEs) (BoM, 2017; GIS Database). GDEs rely on groundwater to meet all or some of their water requirements on a permanent or intermittent basis to maintain ecosystem processes, services and associated communities (BoM, 2017). Terrestrial GDEs rely on the presence of subsurface groundwater, whereas aquatic GDEs rely on surface expression of groundwater (BoM, 2017).

Vegetation types 'DL Ma MgMI Cc CvCi Eb GIPr / 25' and 'DL EcMa AtAcAtp Te CcCs / 22' are considered to represent groundwater dependent communities (Biologic, 2024b). Vegetation types 'SP Cz AiHII As Be TsTe' and 'SD AtAtpPI TcCiCc Te Eo Ahh' recorded by Biologic (2024b) are not considered to be representative of riparian or GDV (Biologic, 2024b). Other

vegetation types recorded within Mining Lease 45/1195 are described as vegetation of riverbanks and natural levees (West Ecology, 2011), if present within the application area, these vegetation types would likely be considered riparian vegetation.

Vegetation types 'DL Ma MgMI Cc CvCi Eb GIPr' and 'DL EcMa AtAcAtp Te CcCs' are considered to be GDEs as they contain indicator species *Eucalyptus camaldulensis* subsp. *obtus*, and *Melaleuca argentea* (Biologic, 2024b; DPI, 2016). *Eucalyptus camaldulensis* subsp. *obtus*, and *Melaleuca argentea* are known phreatophytes, meaning they are groundwater dependent species (Biologic, 2024b; DPI, 2016). *Melaleuca argentea* is considered to be an obligate phreatophyte, requiring persistent groundwater access for survival (Biologic, 2024b).

Clearing of GDEs can alter water regimes and cause degradation of existing biological communities (DER, 2014). Degradation could result in local extinction of vegetation species, loss of diversity of fauna or loss of habitat diversity (DER, 2014). Conditions as described below will be retained on the permit to reduce impacts to riparian and groundwater dependent vegetation and ecosystems.

Pools within the Turner River

The application area is intersected by a semi-permanent pool, Moorambine Pool, which is present 83% of years (DoW, 2016). The presence of near-permanent pools indicates there may be areas of lower permeability (e.g. hardpan or clay layers) within the riverbed or areas of slower infiltration (DoW, 2016). Permanent pools of the lower Turner River are considered to provide refuges for aquatic and terrestrial flora and fauna and are considered sub-regionally significant (DoW, 2016). Vegetation associated with Moorambine pool is dominated by *Melaleuca camaldulensis* and *Melaleuca argentea* and is likely groundwater dependent (DoW, 2016). Given the significance of this pool and its associated vegetation, a 50 metre buffer has been placed around the general area, based upon aerial imagery, within this area no clearing is to occur (Figure 1).

Introduced species

The 2011 flora and vegetation survey conducted by West Ecology recorded seven introduced species within Mining Lease M45/1195, including *Aerva javanica*, *Cenchrus ciliaris*, *Citrullus lanatus*, *Eragrostis minor*, *Passiflora foetida* var *hispida*, *Physalis angulata* and *Portulaca oleracea* (DPIRD, 2026b; West Ecology, 2011). Biologic (2024b) recorded 12 introduced species, six of these occurred within or directly adjacent to the application area; *Aerva javanica*, *Cenchrus ciliaris*, *Cenchrus setiger*, *Echinochloa colona*, *Indigofera oblongifolia*, *Malvastrum americanum*. None of these species are considered declared pests of weeds of national significance (DPIRD, 2026b; Centre for Invasive Species Solution, n.d.)

Conclusion

The application area contains potentially suitable habitat for five priority flora species, however impacts are unlikely to be significant given the above. One priority flora species, *Abutilon* sp. Pritzelianum (S. van Leeuwen 5095), was recently recorded adjacent to the application area, however, impacts to this species if present are unlikely to be significant if present. Despite the likely low impact to these species, appropriate avoidance, minimisation and mitigation measures will still be implemented.

The application area contains species representative of groundwater dependent vegetation and ecosystems; the clearing of these species can alter water regimes and degrade existing biological communities. To minimise impacts to these species and their associated communities the conditions below will be implemented on the permit.

The application area does not contain any declared pests or weeds of national significance, however, the proposed clearing may contribute to the spread of invasive weed species within the application area and negatively impact biodiversity within and adjacent to the application area.

Conditions

To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- avoid, minimise to reduce the impacts and extent of clearing;
- take hygiene steps to minimise the risk of the introduction and spread of weeds;
- watercourse management to avoid riparian vegetation and maintain existing surface flow;
- no clearing of trees with a diameter, at 1.5 metres above the ground, of 500 millimetres or greater, and dripline of identified trees; and
- no clearing of native vegetation within areas shaded red and salmon in Figure 1.

3.2.2. Biological values (fauna) - Clearing principles (a) and (b)

Fauna

No fauna surveys or habitat assessments have been conducted for CPS 9199/2. A habitat assessment has been conducted over part of the application area by Biologic (2024a), the application area has been mapped as major drainage habitat (Biologic, 2024a).

Brush-tailed mulgara

The brush-tailed mulgara (*Dasyercus blythi*, P4) inhabits mature hummock (spinifex) grasslands, and vegetation types next to hummock grasslands, paleo-drainage systems or drainage systems within sandplain or sand dune habitats (NESP, 2021a). This species is mostly active at night, and rests in burrows at the base of grass clumps or bushes during the day (NESP, 2021a).

Within the local surrounds (50 kilometres) there are 299 records of the brush-tailed mulgara (GIS Database). Major drainage habitat within the application area, as well as drainage and sandplain habitats adjacent are considered suitable habitat for the

brush-tailed mulgara (Biologic, 2024a). Majority of the vegetation within the application area is riverbed vegetation, described as sparsely vegetated, with isolated shrubs and clumps of tussock grasses (Biologic, 2024b; West Ecology, 2011; GIS Database). Drainage and sandplain vegetation adjacent is more densely vegetated and would likely provide more suitable habitat (GIS Database). The brush-tailed mulgara will likely utilise the application area for dispersal and foraging however given the lack of dense vegetation cover the application area is less likely to be critical habitat. Denser vegetation adjacent within drainage and sandplain habitat is more likely to be critical habitat. The proposed clearing is unlikely to be significant, however, given this species presence within the surrounds, clearing activities should be restricted to daytime hours to limit disturbance to this species.

Fork-tailed swift

The fork-tailed swift (*Apus pacificus*, MI) is a non-breeding migratory species to Australia (Commonwealth of Australia, 2008). This species is an almost exclusively aerial species, however, when on-ground it occupies a wide range of habitats and is largely independent of terrestrial habitats and landforms (Commonwealth of Australia, 2008).

Ghost bat

Ghost bats (*Macroderma gigas*, VU) have a patchy distribution within the Pilbara and Kimberley in Western Australia, within its range this species is known to roost within caves, crevices, deep overhangs and abandoned mines (Menkhorst and Knight, 2011; Northover et al., 2023). Within the Pilbara, this species is known to forage along drainage lines and riparian corridors, alluvial plains, mulga woodlands, tussock grasslands, sparse woodland along ridge lines, and cave entrances (Bat Call WA, 2021a; Northover et al., 2023). The application area lacks suitable roosting habitat for this species, however major drainage habitat may provide suitable foraging habitat for this species. Whilst the application area provides suitable foraging habitat for this species given the distance to records and typical foraging and dispersal distances, this species may be an infrequent visitor. However potential impacts to this species can be reduced by restricting clearing activities to daytime hours and retaining trees taller than 1.5 metres.

Greater bilby

The bilby (*Macrotis lagotis*, VU) inhabits a wide range of substrates and vegetation types across northern Western Australia, including residual (laterite rises), fluvial and sand plain landforms with low shrub cover of *Acacia* spp. with hummock (*Triodia* spp.) and tussock grasses (DBCA, 2017; Northover et al., 2023). Bilby diggings and tracks have been recorded approximately 15 kilometres southwest and approximately 10 kilometres northeast of the application area (Biologic, 2024a). Given contemporary records have been recorded near the application area this species is likely to be present and utilise the application area for foraging and dispersal. Given the application area is within a major ephemeral watercourse it's unlikely this would be used as burrowing habitat. However, as this species is likely present in the surrounds, to limit disturbance, clearing will be restricted to daytime hours.

Grey falcon

The grey falcon (*Falco hypoleucos*, VU) occurs in low densities across arid and semi-arid inland Australia (Threatened Species Scientific Committee, 2020). This species frequents timbered lowland plains, acacia shrublands, tree-lined watercourses, open woodlands, treeless areas and tussock grasslands (Threatened Species Scientific Committee, 2020). Grey falcons nest in the tallest trees along watercourses particularly in River Red Gum (*Eucalyptus camaldulensis*) and Coolibah (*Eucalyptus coolabah*), or in old nests of other large birds (Threatened Species Scientific Committee, 2020).

The application area contains suitable foraging habitat and likely contains suitable nesting habitat for this species. *Eucalyptus camaldulensis* trees within the riverbank and island within the application area may provide suitable nesting habitat for this species.

Migratory shorebirds and seabirds

Migratory shorebirds typically arrive at their staging areas in northern Australia around September and disperse across Australia, returning to staging areas in March to fly north (DCCEEW, 2025). The application area is located approximately 18 kilometres from the coast and provides potentially suitable foraging habitat for migratory shorebirds that utilise near-coastal, estuarine and inland waterways. Habitat suitability within the application area varies between species, however, habitat is not restricted to the application area. Given suitable habitat extends beyond the application area, and there are various other watercourses within the surrounds the proposed clearing is unlikely to significantly impact these species. Additionally, preferred habitat is largely absent for predominantly coastal species.

Northern short-tailed mouse

Northern Short-tailed mouse or Lakeland down mouse (*Leggadina lakedownensis*, P4) is a nocturnal species known to inhabit tussock and hummock grasslands, Acacia shrublands, savanna woodlands and tropical *Eucalyptus* and *Melaleuca* woodlands, on alluvial clay or sandy soils which are moist or seasonally inundated (Biologic, 2024a; Menkhorst and Knight, 2011; Moro & Kutt, 2008). Short-tailed mouse populations can be subject to boom-bust or eruptive population dynamics, particularly following fire and rainfall events when resources are less or more abundant (Biologic, 2024a). The closest record of this species is approximately 18 kilometres north, adjacent to saline coastal flats, within the broader surrounds this species is commonly recorded adjacent to ephemeral waterways (GIS Database).

This species was considered to possibly be a resident by Biologic (2024a); however, no evidence of this species was recorded within the fauna survey. This species is likely present within the local surrounds and will utilise the application area, however populations will likely fluctuate based on rainfall events. Impacts to this species can be minimised by restricting clearing activities to daytime hours and reducing impacts to riparian vegetation through vegetation management conditions.

Northern quoll

Northern quolls (*Dasyurus hallucatus*, EN) inhabit a variety of habitats within their range, including rocky areas, eucalypt forest and woodlands, rainforests, sandy lowlands and beaches, shrubland, grasslands and desert. Within the Pilbara northern quolls show a preference for rocky areas (Commonwealth of Australia, 2008; Northover et al., 2023). Northern quolls are predominately

nocturnal, take refuge and raise young in dens, particularly small caves and crevices in rocky outcrops and mesas (Northover et al., 2023). Major drainage habitat is considered to provide supporting foraging and dispersal habitat for the northern quoll during dispersal events (males in breeding season), however the application area lacks suitable refuge or denning habitat (Biologic, 2024a). The northern quoll is unlikely to be a resident within the application area and may occasionally utilise the application area, to reduce any potential impacts to this species clearing activities should be restricted to daytime hours.

Peregrine falcon

The peregrine falcon (*Falco peregrinus*, OS) is widespread throughout much of Australia. Its preferred habitat is coastal and inland cliffs, or open woodlands near waterbodies and watercourses (Australian Museum, 2019). This species nests in rocky ledges in tall, vertical cliff faces, and tall trees adjacent to drainage lines in tree hollows or in abandoned nests of other large bird species (Australian Museum, 2019). Major drainage line habitat provides suitable foraging habitat for this species and potentially suitable nesting habitat within large trees. Trees greater than 1.5 metres in height and 500 millimetres in diameter will be retained and vegetation on the vegetated island will not be cleared, these mitigation measures will minimise the impact to potential breeding habitat for the peregrine falcon.

Pilbara leaf-nosed bat

Pilbara leaf-nosed bat (PLNB) (*Rhinonicteris aurantia*, VU) roosts within warm, humid caves and underground mines. Suitable roosting habitat is absent from the application area (Bat Call, WA, 2021b). The PLNB forages in a variety of habitats, particularly highly productive *Triodia* hummock grasslands with complex riparian zones where water is permanently available (Northover et al., 2023). The application area likely provides suitable foraging habitat for the PLNB.

PLNB typically forage up to 20 kilometres from diurnal roost sites, however, have occasionally been recorded greater than 30 kilometres away (Bat Call WA, 2021b). The nearest known PLNB roost site is located more than 50 kilometres from the application area (Biologic, 2024b; GIS Database). As this species has not been recorded travelling further than 50 kilometres from known diurnal roost sites, its occurrence within the application area is unlikely. The clearing of suitable foraging habitat is unlikely to significantly impact the availability of PLNB foraging habitat, as the habitat is abundant in the local surrounds.

Pilbara olive python

Pilbara olive python (*Liasis olivaceus barroni*, VU) is typically observed in rocky gorges, gullies, and semi-permanent and permanent waterholes (Commonwealth of Australia, 2008; Northover, et al., 2023). During warmer months this species inhabits riparian areas and rocky habitats during cooler months (Northover et al., 2023). The application area may provide some suitable foraging and dispersal habitat, particularly where providing connectivity to other areas of habitat, however the application area does lack rocky habitat (Biologic, 2024a). To reduce fragmentation of dispersal habitats and degradation of foraging habitats, a vegetation management condition to reduce clearing of riparian vegetation and maintain surface flow will be implemented. Additionally, a 50 metre buffer has been placed around the semi-permanent pool, Moorambine Pool, which may act as suitable foraging habitat for the Pilbara olive python.

Conclusion

Based on the above assessment, the proposed clearing will result in the loss suitable habitat which is suitable for brush-tailed mulgara, grey falcon, migratory shorebirds, northern short-tailed mouse, peregrine falcon, and loss of potentially suitable habitat for the ghost bat, northern quoll, Pilbara leaf-nose bat, and Pilbara olive python.

Vegetation within the application area is generally sparse, excluding denser vegetation areas on the riverbank and a vegetated island within the application area. As the application area is sparsely vegetated and within a riverbed the proposed clearing is likely to have a low impact on fauna habitat, however level of impact between species will vary and will have appropriate mitigation measures applied. Impacts to species that utilise tall trees for foraging or breeding can be reduced by retaining the restricted clearing and clearing authorised conditions on the permit. Impacts to species that utilise riparian vegetation, waterways and pools for foraging, dispersal or breeding can be minimised by retaining vegetation management, clearing authorised and restricted clearing conditions. Additionally, an additional area has been added to the restricted clearing condition to minimise impacts to species likely to utilise semi-permanent pools and associated vegetation. Impacts to nocturnal fauna can be minimised by restricting clearing activities to daytime hours. Conditions to minimise impacts to fauna are listed below.

Conditions

To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- avoid, minimise to reduce the impacts and extent of clearing;
- no clearing of trees with a diameter, at 1.5 metres above the ground, of 500 millimetres or greater, and dripline of identified trees; and
- no clearing of native vegetation within areas shaded red and salmon in Figure 1; and
- restrict clearing activities to daytime hours.

3.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 17 April 2026 by the Department of Mines, Petroleum and Exploration inviting submissions from the public. No submissions were received in relation to this application.

There is one native title claim over the area under application (DPLH, 2026). This claim has been registered with the National Native Title Tribunal (WCD2018/015) on behalf of the claimant group. The mining tenure has been granted in accordance with CPS 9199/2

the future act regime of the *Native Title Act 1993*, and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance within the application area (DPLH, 2026). It should be noted there is one historic Aboriginal Site of Significance within the application area (DPLH, 2026). 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.

It is noted that the proposed clearing may impact on grey falcon, ghost bat (*Macroderma gigas*), greater bilby (*Macrotis lagotis*), grey falcon (*Falco hypoleucos*), northern quoll (*Dasyurus hallucatus*), peregrine falcon (*Falco peregrinus*) Pilbara leaf-nosed bat (*Rhynonictis aurantia*), Pilbara olive python (*Liasis olivaceus barroni*) and which are protected matters under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act). The proponent may be required to refer the project to the (Commonwealth) Department of Climate Change, Energy, the Environment and Water for environmental impact assessment under the EPBC Act. The proponent is advised to contact the Department of Climate Change, Energy, the Environment and Water for further information regarding notification and referral responsibilities under the EPBC Act.

Other relevant authorisations required for the proposed land use include:

- A Programme of Work approved under the *Mining Act 1978*
- A Mining Development and Closure Proposal approved under the *Mining Act 1978*

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

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. It is located within the Turner River adjacent to the Great Northern Highway, approximately 14 kilometres southwest of Port Hedland (GIS Database). Vegetation within the local surrounds (50 kilometres) is largely intact, however disturbance from the Port Hedland townsites, roads, railways, and mining related infrastructure is present (GIS Database). The predominant land use in the region is grazing native pastures, Aboriginal lands and reserves, conservation, mining leases, urban (CALM, 2002).
Ecological linkage	According to available databases, the application area does not contain any known or mapped ecological linkages (GIS Database).
Conservation areas	There are no conservation areas within the local surrounds (50 kilometres) (GIS Database). The nearest conservation area is Mungaroona Range Nature Reserve located approximately 93 kilometres southwest of the application area (GIS Database).
Vegetation description	The vegetation of the application area is broadly mapped as the following Beard vegetation associations: Abydos Plain 589: Mosaic: Short bunch grassland - savanna / grass plain (Pilbara) / Hummock grasslands, grass steppe; soft spinifex; and Abydos Plain 619: Medium woodland; river gum (<i>Eucalyptus camaldulensis</i>) (GIS Database). A flora and vegetation survey was conducted over the application area by West Ecology during May, 2011. The following vegetation associations were recorded within Mining Lease 45/1195 (West Ecology, 2011): • 19: Low shrubland of <i>Triumfetta chaetocarpa</i> and <i>Corchorus ?incanus</i> subsp. <i>incanus</i> over open tussock grasslands on natural levee banks of the Turner River; • 20: Low scattered shrubs of <i>Triumfetta chaetocarpa</i> over open tussock grasslands on plains; • 21: Open shrubland of <i>Acacia colei</i> var <i>colei</i> and <i>Acacia inaequilatera</i> over hummock grassland on plains; • 22: Scattered low trees of <i>Eucalyptus camaldulensis</i> subsp. <i>obtusa</i> over high open shrubland of <i>Acacia</i> species and open hummock grassland in riverbanks of the Turner River; • 23: Woodland of <i>Eucalyptus camaldulensis</i> subsp. <i>obtusa</i> and <i>Melaleuca argentea</i> over open tussock grassland on riverbanks of the Turner River; • 24: Low open woodland of <i>Eucalyptus camaldulensis</i> subsp. <i>obtusa</i> and <i>Melaleuca argentea</i> over high shrubland of <i>Acacia ampliceps</i> in riverbeds of the Turner River; and • 25: Low open woodland of <i>Melaleuca argentea</i> in riverbeds of the Turner River. A flora and vegetation survey was conducted over part of the application area by Biologic during April and May, 2023. The following vegetation associations were recorded within the application area (Biologic, 2024b): • DL Ma MgMI Cc CvCi Eb GIPr: <i>Melaleuca argentea</i> low open woodland over <i>Melaleuca glomerata</i>, <i>Melaleuca linophylla</i> tall sparse shrubland over <i>Crotalaria cunninghamii</i> mid isolated shrubs over <i>Cyperus vaginatus</i>, <i>Cyperus ixiocarpus</i> mid sparse sedgeland over <i>Eriachne benthamii</i> isolated clumps of tussock grasses over <i>Goodenia lamprosperma</i>, <i>Pluchea rubelliflora</i> low sparse herbland; • DL EcMa AtAcAtp Te CcCs: <i>Eucalyptus camaldulensis</i>, <i>Melaleuca argentea</i> mid open woodland over <i>Acacia trachycarpa</i>, <i>Acacia colei</i>, <i>Acacia tumida</i> var. <i>pilbarensis</i> tall sparse shrubland over <i>Triodia epactia</i> mid sparse tussock grassland with <i>*Cenchrus ciliaris</i>, <i>*Cenchrus setiger</i> low open tussock grassland; • SD AtAtpPI TcCiCc Te Eo Ahh: <i>Acacia trachycarpa</i>, <i>Acacia tumida</i> var. <i>pilbarensis</i>, <i>Petalostylis labicheoides</i> tall open woodland over <i>Triumfetta chaetocarpa</i>, <i>Corchorus incanus</i>, <i>Cajanus cinereus</i> mid isolated shrubs over <i>Triodia epactia</i> mid open hummock grassland over <i>Eriachne obtusa</i>, <i>Aristida holathera</i> sparse tussock grassland; • SP Cz AiHII As Be TsTe: <i>Corymbia zygophylla</i> low isolated trees over <i>Acacia inaequilatera</i>, <i>Hakea lorea</i> subsp. <i>lorea</i> tall isolated shrubs over <i>Acacia stellaticeps</i> low mid shrubland over <i>Bonamia erecta</i> low sparse shrubland over <i>Triodia schinzii</i>, <i>Triodia epactia</i> mid open hummock grassland; and • Bare River Channel: Bare river channel, watercourse.
Vegetation condition	Vegetation surveys of the application area found the vegetation to be in Very good, and Poor condition (Trudgen, 1991; West Ecology, 2011). The full Trudgen (1991) condition rating scale is provided in Appendix C.

Climate and landform	The climate of the Roebourne subregion is described as arid (semi-desert) tropical with highly variable rainfall, falling mainly in summer (CALM, 2002). Cyclonic activity is significant, with several systems affecting the coast and hinterland annually (CALM, 2002). The average rainfall is approximately 315.4 millimetres per year, recorded at Port Hedland Airport (BoM, 2026; CALM, 2002). The application area is mapped at elevations of 10-30 metres Australian Height Datum (GIS Database).
Soil description and land degradation risk	The soil is mapped as a part of the following land system (DPIRD, 2026a; Van Vreeswyk et al., 2004; GIS Database): • River system (281Ri): Narrow, seasonally active flood plains and major river channels supporting moderately close, tall shrublands or woodlands of acacias and fringing communities of eucalypts sometimes with tussock grasses or spinifex. This system is highly or very highly susceptible to erosion when vegetation cover is removed
Waterbodies	The desktop assessment and aerial imagery indicated that the application area is located within the Turner River, a major ephemeral watercourse (GIS Database). The nearest Wetland of National Importance is Leslie (Port Hedland) Saltfields System located approximately 33 kilometres northeast of the application area (GIS Database).
Hydrogeography	The nearest Public Drinking Water Source Area is Yule River Water Reserve located approximately 18 kilometres west of the application area (GIS Database). 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 groundwater salinity is mapped as 1,000 to 3,000 milligrams per litre total dissolved solids which is described as brackish (BoM, 2019; GIS Database).
Flora	There are records of 12 priority flora within the local surrounds (50 kilometres), no threatened flora is known to occur within the local surrounds (GIS Database). No priority or threatened flora is known to occur within the application area (West Ecology, 2011; GIS Database).
Ecological communities	There are no Priority Ecological Communities or Threatened Ecological Communities within the application area (GIS Database). Within the local surrounds (50 kilometres) there are multiple records of the Gregory Land System Priority Ecological Community (GIS Database). There are no Threatened Ecological Communities within the local surrounds (50 kilometres) (GIS Database).
Fauna	There are records of 68 fauna of conservation significance that have been recorded within the local surrounds (50 kilometres) (Appendix, A.4; GIS Database).
Fauna habitat	The application area was mapped as major drainage habitat (Biologic, 2024a).

A.2. Vegetation extent

	Pre-European area (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current extent in all DBCA Managed Land (proportion of pre-European extent) (%)
IBRA Bioregion - Pilbara	17,808,657.04	17,731,764.88	99.57	1,801,714.98	10.12
Beard vegetation associations - State					
Veg Assoc 589	807,698.58	802,713.40	99.38	15,304.39	1.89
Veg Assoc 619	119,373.78	118,205.01	99.02	236.34	0.20
Beard vegetation associations - Bioregion					
Veg Assoc 589	728,768.20	724,695.82	99.44	15,304.39	2.10
Veg Assoc 619	118,920.31	118,116.78	99.32	236.08	0.20

Government of Western Australia (2019)

A.3. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (Appendix E.1), and biological survey information, impacts to the following conservation significant flora required further consideration (Biologic, 2024b; WA Herbarium, 1998-).

Species name	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)
Priority 1			
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	N	<15	53
Priority 2			
<i>Gomphrena pusilla</i>	N	<20	15
Priority 3			
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)	Y	<1	52
<i>Euphorbia clementii</i>	N	<40	32
<i>Euploca mutica</i>	Y	<15	77
<i>Gomphrena cucullata</i>	N	<45	14
<i>Gomphrena leptophylla</i>	Y	<15	8
<i>Gymnanthera cunninghamii</i>	Y	<20	45
<i>Rothia indica</i> subsp. <i>australis</i>	Y	<20	23
<i>Triodia chichesterensis</i>	N	<25	43
Priority 4			
<i>Bulbostylis burbridgeae</i>	N	<20	40
<i>Ptilotus mollis</i>	N	<20	48

A.4. Fauna analysis table

The following conservation significant fauna species have been recorded within 50 kilometres of the application area (Commonwealth of Australia, 2008; Johnson, 1959; Menkhorst & Knight, 2011; Menkhorst et al., 2019; NESP, 2021b; Simpson & Day, 2010; Northover et al., 2023; GIS Database).

Species name	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)
Birds			
Asian dowitcher (<i>Limnodromus semipalmatus</i>)	MI	N	<20
Barn swallow (<i>Hirundo rustica</i>)	MI	Y	<15
Bar-tailed godwit (<i>Limosa lapponica</i>)	MI	Y	<5
Bar-tailed godwit (northern Siberian) (<i>Limosa lapponica menzbieri</i>)	CR	Y	<30
Black-tailed godwit (<i>Limosa limosa</i>)	MI	Y	<30
Bridled tern (<i>Onychoprion anaethetus</i>)	MI	N	<25
Broad-billed sandpiper (<i>Calidris falcinellus</i>)	MI	Y	<30
Brown booby (<i>Sula leucogaster</i>)	MI	N	<35
Caspian tern (<i>Hydroprogne caspia</i>)	MI	Y	<5
Common greenshank (<i>Tringa nebularia</i>)	MI	Y	<5
Common sandpiper (<i>Actitis hypoleucos</i>)	MI	Y	<5
Common tern (<i>Sterna hirundo</i>)	MI	Y	<25
Crested tern (<i>Thalasseus bergii</i>)	MI	N	<5
Curlew sandpiper (<i>Calidris ferruginea</i>)	CR	Y	<15
Eastern curlew (<i>Numenius madagascariensis</i>)	CR	Y	<5
Fairy tern (<i>Sternula nereis nereis</i>)	VU	Y	<25
Fork-tailed swift (<i>Apus pacificus</i>)	MI	Y	<35
Glossy ibis (<i>Plegadis falcinellus</i>)	MI	Y	<30
Great knot (<i>Calidris tenuirostris</i>)	CR	Y	<5
Greater sand plover (<i>Charadrius leschenaultii</i>)	VU	Y	<5
Grey falcon (<i>Falco hypoleucos</i>)	VU	Y	<5

Species name	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)
Grey plover (<i>Pluvialis squatarola</i>)	MI	Y	<5
Grey-tailed tattler (<i>Tringa brevipes</i>)	MI, P4	N	<25
Gull-billed tern (<i>Gelochelidon nilotica</i>)	MI	Y	<5
Lesser frigatebird (<i>Fregata ariel</i>)	MI	N	<25
Lesser sand plover (<i>Charadrius mongolus</i>)	EN	Y	<5
Little curlew (<i>Numenius minutus</i>)	MI	Y	<5
Little tern (<i>Sternula albifrons</i>)	MI	Y	<25
Long-toed stint (<i>Calidris subminuta</i>)	MI	Y	<5
Marsh sandpiper (<i>Tringa stagnatilis</i>)	MI	Y	<25
Oriental plover (<i>Charadrius veredus</i>)	MI	Y	<25
Oriental pratincole (<i>Glareola maldivarum</i>)	MI	Y	<5
Osprey (<i>Pandion haliaetus</i>)	MI	Y	<5
Pacific golden plover (<i>Pluvialis fulva</i>)	MI	Y	<15
Pectoral sandpiper (<i>Calidris melanotos</i>)	MI	Y	<25
Peregrine falcon (<i>Falco peregrinus</i>)	OS	Y	<5
Pin-tailed snipe (<i>Gallinago stenura</i>)	MI	Y	<20
Red knot (<i>Calidris canutus</i>)	EN	Y	<5
Red-necked phalarope (<i>Phalaropus lobatus</i>)	MI	Y	<45
Red-necked stint (<i>Calidris ruficollis</i>)	MI	Y	<5
Ruddy turnstone (<i>Arenaria interpres</i>)	MI	N	<5
Ruff (<i>Calidris pugnax</i>)	MI	Y	<5
Sanderling (<i>Calidris alba</i>)	MI	Y	<5
Sharp-tailed sandpiper (<i>Calidris acuminata</i>)	MI	Y	<5
Terek sandpiper (<i>Xenus cinereus</i>)	MI	Y	<5
Whimbrel (<i>Numenius phaeopus</i>)	MI	Y	<5
White-winged black tern (<i>Chlidonias leucopterus</i>)	MI	Y	<15
Wilson's storm-petrel (<i>Oceanites oceanicus</i>)	MI	N	<25
Wood sandpiper (<i>Tringa glareola</i>)	MI	Y	<5
Mammals			
Australian humpback dolphin (<i>Sousa sahalensis</i>)	MI, P4	N	<25
Banded hare-wallaby (<i>Lagostrophus fasciatus fasciatus</i>)*	VU	N	<25
Brush-tailed mulgara (<i>Dasycercus blythi</i>)	P4	Y	<5
Crested-tailed mulgara (<i>Dasycercus cristicauda</i>)	P4	N	<15
Dugong (<i>Dugong dugon</i>)	MI	N	<20
Ghost bat (<i>Macroderma gigas</i>)	VU	Y	<25
Greater bilby (<i>Macrotis lagotis</i>)	VU	Y	<10
Northern coastal free-tailed bat (<i>Ozimops cobourgiensis</i>)	P1	N	<25
Northern quoll (<i>Dasyurus hallucatus</i>)	EN	Y	<15
Northern short-tailed mouse (<i>Leggadina lakedownensis</i>)	P4	Y	<20
Pilbara leaf-nosed bat (<i>Rhinonictis aurantia</i>)	VU	Y	<30
Western pebble-mound mouse (<i>Pseudomys chapmani</i>)	P4	N	<30
Reptiles			
Airlie Island ctenotus (<i>Ctenotus angusticeps</i>)	P3	N	<20
Flatback turtle (<i>Natator depressus</i>)	VU	N	<10
Green turtle (<i>Chelonia mydas</i>)	VU	N	<5
Hawksbill turtle (<i>Eretmochelys imbricata</i>)	VU	N	<45
Loggerhead turtle (<i>Caretta caretta</i>)	EN	N	<45

Species name	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)
Pilbara olive python (<i>Liasis olivaceus barroni</i>)	VU	Y	<25
Fish			
Green sawfish (<i>Pristis zijsron</i>)	VU	N	<30

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, MI: migratory, CD: conservation dependent, OS: other specially protected, P: priority

* denotes species is likely locally extinct

A.5. Ecological community analysis table

Ecological communities recorded within 50 kilometres of the application area (GIS Database).

Community name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Mapped extent of occurrence (hectares)	Are surveys adequate to identify? [Y, N, N/A]
Gregory Land System	P3	N	N	N	41	15,648	Y

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

Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<u>Principle (a):</u> "Native vegetation should not be cleared if it comprises a high level of biodiversity." <u>Assessment:</u> The area proposed to be cleared contains suitable habitat for conservation significant flora and fauna.	May be at variance (changed from CPS 9199/1)	Yes <i>Refer to Section 3.2.1 and 3.2.2, above.</i>
<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." <u>Assessment:</u> The area proposed to be cleared contains potential foraging and breeding habitat for conservation significant fauna.	May be at variance (changed from CPS 9199/1)	Yes <i>Refer to Section 3.2.2, above.</i>
<u>Principle (c):</u> "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora." <u>Assessment:</u> The area proposed to be cleared unlikely to contain flora species listed under the BC Act (GIS Database).	Not likely to be at variance (as per CPS 9199/1)	No
<u>Principle (d):</u> "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." <u>Assessment:</u> The area proposed to be cleared does not contain species that can indicate a threatened ecological community (DBCA, 2025; GIS Database).	Not likely to be at variance (as per CPS 9199/1)	No
Environmental value: significant remnant vegetation and conservation areas		

Assessment against the clearing principles	Variance level	Is further consideration required?
<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> <u>Assessment:</u> The extent of the mapped vegetation type is consistent with the national objectives and targets for biodiversity conservation in Australia (Commonwealth of Australia, 2001; Appendix B.2.). The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area (GIS Database).	Not at variance (as per CPS 9199/1)	No
<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> <u>Assessment:</u> Given the distance to the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.	Not likely to be at variance (as per CPS 9199/1)	No
Environmental value: land and water resources		
<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> <u>Assessment:</u> Given the application is situated the Turner River, a major ephemeral watercourse. The proposed clearing will likely impact on vegetation growing within the watercourse. Vegetation within the application area is indicative of groundwater dependent vegetation and riparian vegetation.	At variance (as per CPS 9199/1)	Yes <i>Refer to Section 3.2.1</i>
<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> <u>Assessment:</u> The application area is mapped within the River land system, with the majority of the application area occurring within the Riverbed phase with no vegetation (DPIRD, 2026a; DPIRD 2026c; Van Vreeswyk et al., 2004). The River land system is highly susceptible to erosion if vegetation cover is removed (Van Vreeswyk et al., 2004). Some riparian vegetation has previously been cleared for access into the sand mining area; however, this area has been maintained within the application area (DMPE, 2025). To minimise impacts of erosion, the vegetation management condition to avoid the clearing of riparian vegetation, will be maintained on CPS 9199/2. Additionally, the clearing not authorised condition prevents the clearing of trees with a diameter, at 1.5 metres above the ground, of 500 millimetres or greater, and associated dripline vegetation from being cleared. This will further reduce instability and erosion within the riverbed. Within the application area there is one vegetation island within the riverbed. Removal of vegetation from the vegetated island within the application area would likely have a significant impact on land degradation, in the form of erosion. Therefore, to minimise impacts of erosion, the restricted clearing condition, avoiding the clearing of this island, will be maintained on CPS 9199/2.	May be at variance (as per CPS 9199/1)	No
<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> <u>Assessment:</u> The application area is located within the Turner River, a major ephemeral waterway which flows during periods of heavy rainfall (GIS Database). Much of the application area is sparsely vegetated or bare riverbed, however, contains patches of denser vegetation and groundwater dependent vegetation (Biologic, 2024b; DPIRD, 2026c; West Ecology, 2011). Clearing of riparian vegetation and groundwater dependent vegetation could potentially cause soil instability, erosion and subsequent deterioration of water quality. The clearing of groundwater dependent vegetation can alter water regimes (DER, 2014). To minimise the potential impacts to water quality, the vegetation management, restricted clearing and clearing not authorised conditions discussed above and in Section 3.2.1 will be implemented on the permit.	Not likely to be at variance (as per CPS 9199/1)	No

Assessment against the clearing principles	Variance level	Is further consideration required?
<u>Principle (j):</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." <u>Assessment:</u> The application area is situated within the Turner River, a major ephemeral waterway which flows during periods of heavy rainfall (GIS Database). It is unlikely the proposed clearing will significantly increase the incidence or intensity of flooding, given the application area naturally floods, and is sparsely vegetated. To minimise impacts to water regimes and potential flooding, vegetation management, restricted clearing and clearing not authorised conditions discussed above will be retained on the permit.	Not likely to be at variance (as per CPS 9199/1)	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. Vegetation mapping

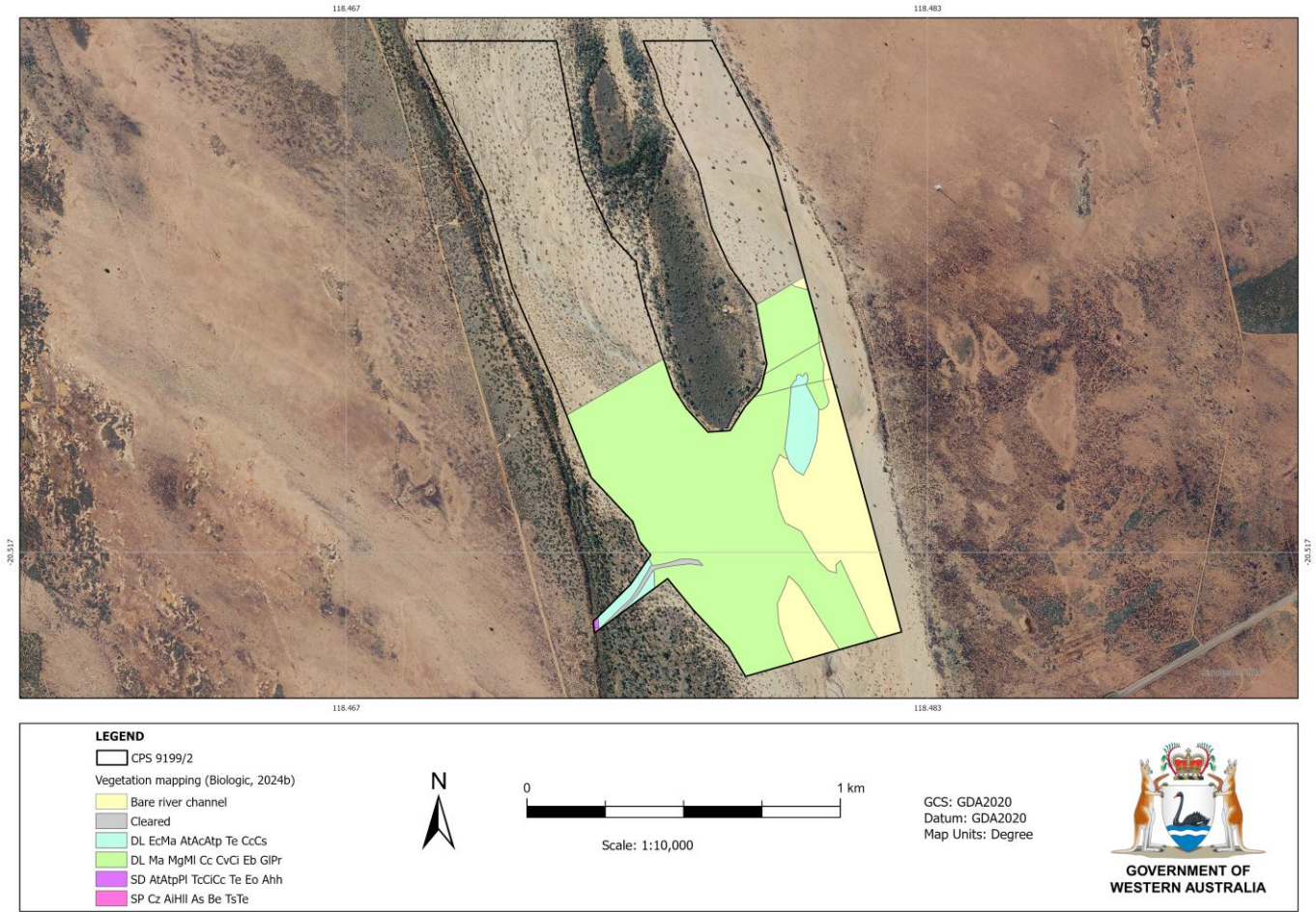


Figure 2. Vegetation mapping conducted by Biologic (2024b) over part of the application area.

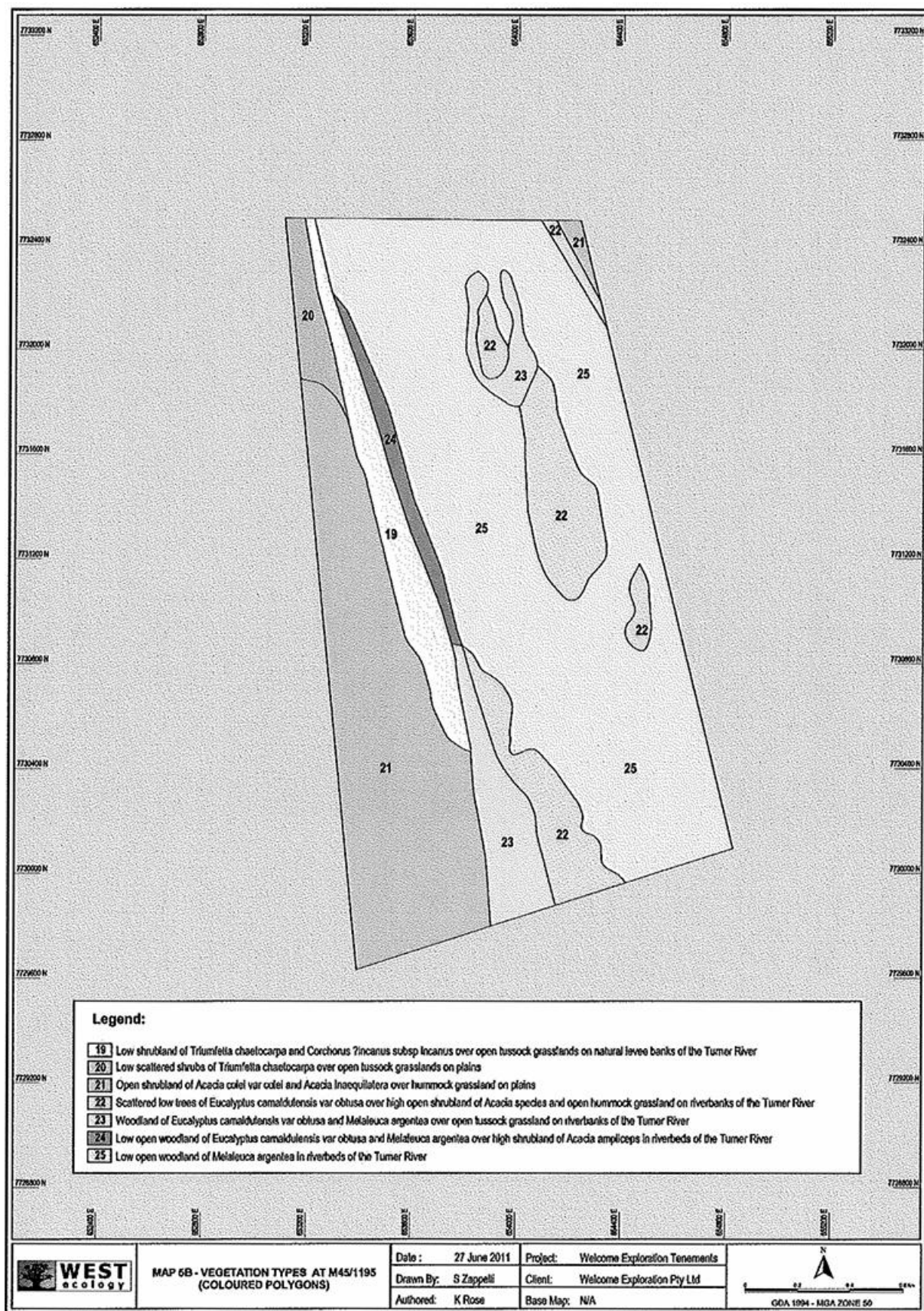


Figure 3. Vegetation mapping of Mining Lease 45/1195 conducted by West Ecology (2011).

Appendix E. Sources of information

E.1. GIS datasets

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

- Bush Forever Areas 2000 (DPLH-019)

- Cadastre (Polygon) (LGATE-217)
- Clearing Instruments Activities (Areas Approved to Clear) (DWER-076)
- Clearing Regulations - Environmentally Sensitive Areas (DWER-046)
- Clearing Regulations - Schedule One Areas (DWER-057)
- Consanguineous Wetlands Suites (DBCA-020)
- 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)
- EPA Redbook Recommended Conservation Reserves 1976-1991 (DBCA-029)
- EPA Referred Schemes Pending (DWER-121)
- EPA Referred Significant Proposals (DWER-120)
- EPA Referred Significant Proposals Pending (DWER-103)
- Geographic Names (GEONOMA) (LGATE-013)
- Groundwater Salinity Statewide (DWER-026)
- IBRA Vegetation Statistics
- IBSA Survey Details (DWER-118)
- Local Government Area (LGA) Boundaries (LGATE-233)
- Localities (LGATE-234)
- Medium Scale Topo Contour (Line) (LGATE-015)
- Mineral Field Boundaries (DMIRS-005)
- Native Title (Determination) (LGATE-066)
- Native Vegetation Extent (DPIRD-005)
- Pre-European Vegetation (DPIRD-006)
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Reserves (LGATE-227)
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Rivers (DWER-036)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping - Best Available (DPIRD-027)
- Soil Landscape Mapping - Systems (DPIRD-064)
- Surface Water Management Areas (DWER-041)
- Townsites (LGATE-248)
- WA Now Aerial Imagery
- Water Allocation Plans and Statements (DWER-086)
- Wild Rivers (DWER-087)
- WRIMS - Groundwater Areas (DWER-085)
- WRIMS - Surface Water Areas (DWER-082)

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)

E.2. References

Australian Museum (2019) Peregrine Falcon. Australian Museum, New South Wales. Available from:

<https://australian.museum/learn/animals/birds/peregrine-falcon/>

Bat Call WA (2021a) A review of ghost bat ecology, threats and survey requirements. Report prepared for the Department of Agriculture, Water and the Environment, Canberra. Available from:

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Glossary

Acronyms:

BC Act	<i>Biodiversity Conservation Act 2016</i> , Western Australia
BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia (now DPLH)
DAFWA	Department of Agriculture and Food, Western Australia (now DPIRD)
DCCEEW	Department of Climate Change, Energy, the Environment and Water, Australian Government
DBCA	Department of Biodiversity, Conservation and Attractions, Western Australia
DEMIRS	Department of Energy, Mines, Industry Regulation and Safety (now DMPE)
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia (now DMPE)
DMP	Department of Mines and Petroleum, Western Australia (now DMPE)
DMPE	Department of Mines, Petroleum and Exploration
DoEE	Department of the Environment and Energy (now DCCEEW)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora (now known as Threatened Flora)
DWER	Department of Water and Environmental Regulation, Western Australia

EP Act	<i>Environmental Protection Act 1986</i> , Western Australia
EPA	Environmental Protection Authority, Western Australia
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
PEC	Priority Ecological Community, Western Australia
RIWI Act	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
TEC	Threatened Ecological Community

Definitions:

DBCA (2023) Conservation Codes for Western Australian Flora and Fauna. Department of Biodiversity, Conservation and Attractions, Western Australia:

Threatened species

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

Threatened fauna is the species of fauna that are listed as critically endangered, endangered or vulnerable threatened species.

Threatened flora is the species of flora that are listed as critically endangered, endangered or vulnerable threatened species.

The assessment of the conservation status of threatened species is in accordance with the BC Act listing criteria and the requirements of [Ministerial Guideline Number 1](#) and [Ministerial Guideline Number 2](#) that adopts the use of the International Union for Conservation of Nature (IUCN) [Red List of Threatened Species Categories and Criteria](#), and is based on the national distribution of the species.

CR Critically endangered species

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

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines.

EN Endangered species

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

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines.

VU Vulnerable species

Threatened species considered to be “*facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines.

Extinct species

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

EX Extinct species

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

EW Extinct in the wild species

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

Currently there are no threatened fauna or threatened flora species listed as extinct in the wild.

Specially protected species**SP Specially protected species**

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

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

MI Migratory species

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

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

CD Species of special conservation interest (conservation dependent fauna)

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

Currently only fauna are listed as species of special conservation interest.

OS Other specially protected species

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

Currently only fauna are listed as species otherwise in need of special protection.

Priority species**P Priority species**

Priority is not a listing category under the BC Act. The Priority Flora and Fauna lists are maintained by the department and are published on the department's website.

All fauna and flora are protected in WA following the provisions in Part 10 of the BC Act. The protection applies even when a species is not listed as threatened or specially protected, and regardless of land tenure (State managed land (Crown land), private land, or Commonwealth land).

Species that may possibly be threatened species that do not meet the criteria for listing under the BC Act because of insufficient survey or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of prioritisation for survey and evaluation of conservation status so that consideration can be given to potential listing as threatened.

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

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

P1 Priority One - Poorly-known species – known from few locations, none on conservation lands

Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, for example, agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation.

Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements for threatened listing and appear to be under immediate threat from known threatening processes. These species are in urgent need of further survey.

P2 Priority Two - Poorly-known species – known from few locations, some on conservation lands

Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, for example, national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation.

Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements for threatened listing and appear to be under threat from known threatening processes. These species are in urgent need of further survey.

P3 Priority Three - Poorly-known species – known from several locations

Species that are known from several locations and the species does not appear to be under imminent threat or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat.

Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. These species need further survey.

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

- (a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands.
- (b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as a conservation dependent specially protected species.
- (c) Species that have been removed from the list of threatened species or lists of conservation dependent or other specially protected species, during the past five years for reasons other than taxonomy.
- (d) Other species in need of monitoring.

Principles for clearing native vegetation:

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