Government of Western Australia
Department of Water and Environmental Regulation

Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 10934/1 (APP-002724)
Permit type:	Purpose permit
Applicant name:	Process Minerals International Pty Ltd
Application received:	30 January 2025
Application area:	8.6 hectares of native vegetation
Purpose of clearing:	Construction of an intersection
Method of clearing:	Mechanical
Property:	Lot 556 on Deposited Plan 77006 and Lot 188 on Deposited Plan 219305,
Location (LGA area/s):	Shire of East Pilbara
Localities (suburb/s):	Newman

1.2. Description of clearing activities

The vegetation proposed to be cleared is contained within a single contiguous area (see Figure 1, Section 1.5) to construct an intersection on Great Northern Highway to facilitate entry to the Lamb Creek Mine Project.

1.3. Decision on application

Decision:	Granted
Decision date:	22 October 2025
Decision area:	8.6 hectares of native vegetation, as depicted in Section 1.5, below.

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (DWER) advertised the application for 21 days and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix B), relevant datasets (see Appendix E.1), the findings of flora, vegetation and fauna survey's, the clearing principles set out in Schedule 5 of the EP Act (see Appendix C), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3). The Delegated Officer also took into consideration the purpose of the clearing is for the construction of an intersection at the entry of Lamb Creek Iron Ore Project, to facilitate safe entry and exit of light vehicles and larger trucks.

The assessment identified that the proposed clearing will 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 fauna that may use the area at the time of clearing,

- potential impacts to non-perennial watercourses

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined the proposed clearing can be minimised and managed to unlikely lead to an unacceptable risk to environmental values. The applicant has suitably demonstrated avoidance and minimisation measures, and conditions have been implemented on the permit to further minimise the impacts.

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,
- fauna spotter to be present during the clearing, and
- to maintain existing surface flow and install sediment and erosion control measures.

1.5. Site map

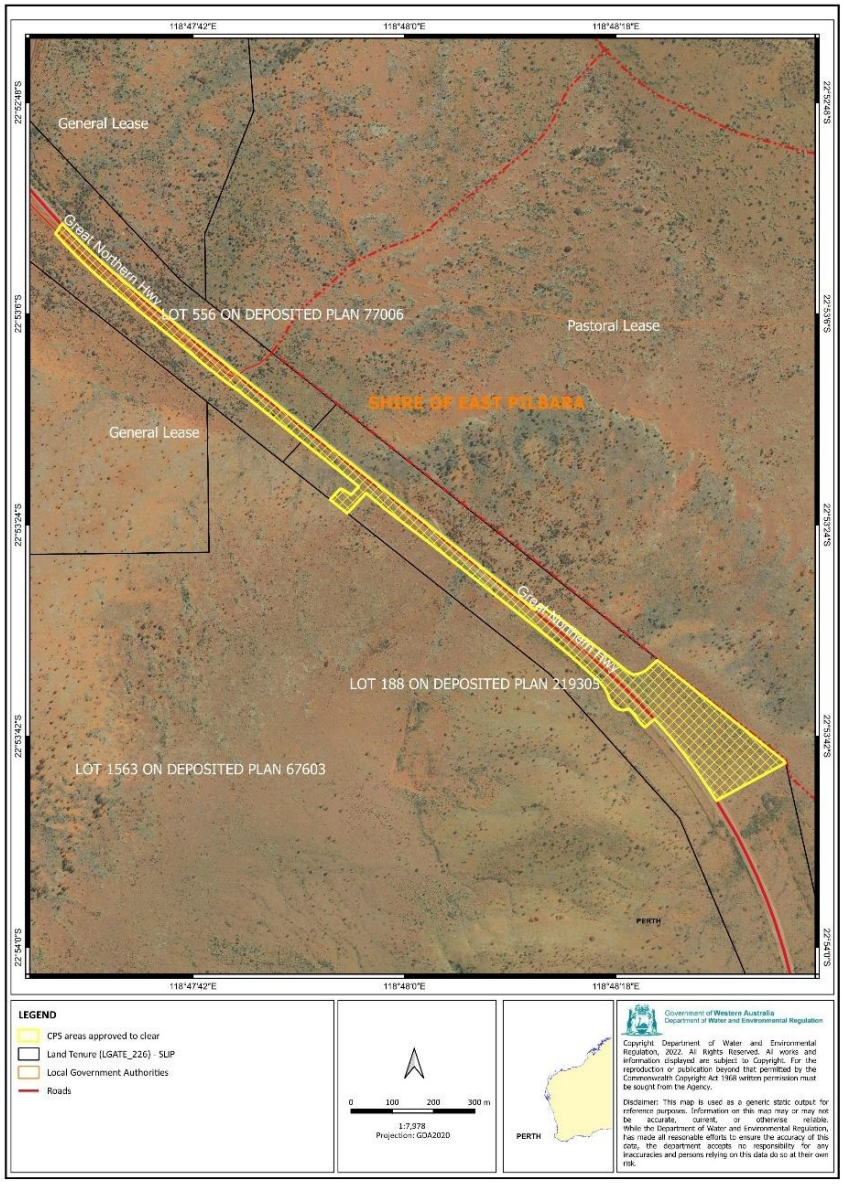


Figure 1 Map of the application area

The area crosshatched yellow indicates the area authorised to be cleared under the granted clearing permit.

2 Legislative context

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

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

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

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)

The key guidance documents which inform this assessment are:

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

Evidence was submitted by the applicant, demonstrating the following avoidance and mitigation measures:

- project design has been considered to avoid as much priority flora as practicable,
- environmental and heritage requirements included in the site induction and pre-starts;
- demarcate clearing boundaries prior to clearing;
- clearing activities managed to ensure machinery stays within the approved clearing area;
- pre-starts to detail the approved clearing areas and what environmental values they contain;
- infrastructure used to maintain surface drainage patterns, if required (e.g. culverts, diversion);
- construction during rainfall avoided where practicable;
- hygiene inspections conducted for all vehicles and machinery, prior to entry and exit to site;
- a hygiene inspection checklist will be used to record the results of hygiene inspections;
- inspections will be conducted to assess compliance with the Construction Environmental Management Plan (CEMP) during operations;
- a practical completion inspection will be conducted to assess compliance completion of clearing;
- results of CEMP inspections will be recorded using an inspection checklist;
- prior to clearing, Priority Flora in the immediate surrounds of the Development Envelope to be retained shall be flagged with a 5 m exclusion zone, where practicable;
- topsoil to be retained for rehabilitation in nearby stockpiles, where practicable;
- follow the flora and vegetation management plan,
- proposed clearing has been minimised as far as practicable to reduce the extent of disturbance required;
- use of spotters and/or restricting clearing to the daylight hours will be undertaken
- off-road driving shall be prohibited unless authorised
- avoid hot work in fire sensitive areas and during fire risk days
- intersection of the haul road with GNH and an additional 100 m past the intersection, will be sealed to reduce the generation of dust.
- road train iron ore loads will be covered
- ground clearing (including topsoil stripping) shall not be undertaken during periods of high wind (unless soil moisture levels are also elevated enough to inhibit dust formation).
- prepare and implement a Weed Management Plan

The applicant also provided four supporting documents which outline avoidance and mitigation in more detail including:

- Clearing Assessment Report (Main Roads WA, 2025a)
- Environmental Impact Assessment (Main Roads WA, 2025b),
- Flora and Vegetation Management Plan (Mineral Resources, 2024), and
- Minor Works Construction Environmental Management Plan (Main Roads, 2025c)

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 B) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values.

The assessment against the clearing principles (see Appendix C) identified that the impacts of the proposed clearing present a risk to biological values (fauna) and water resources. The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

3.2.1. Biological values (Fauna) - Clearing Principles (a)

Assessment

A detailed vertebrate fauna survey (Rapallo, 2022) was undertaken, which included a portion of the application area and the larger Lamb Creek Project Area. During the fauna survey 0.75 hectares of the application area was surveyed. The survey was conducted between 16 to 2 April 2020, with a supplementary habitat assessment and bat recording occurring during the wet season between 17 and 25 February 2021. Within the application area the fauna assessment involved systematic trapping, bird surveys, acoustic surveys and opportunistic observations. The fauna survey concluded the habitat of the 0.75 hectares of the application area is tussock grassland plains (Rapallo, 2022). Whilst the remainder of the application area was not surveyed during the fauna survey, this portion of the application area was described in the flora and vegetation survey (Rapallo, 2021). The vegetation survey identified the application area is made up of the following habitat types:

- Cleared/disturbed;
- Low mulga woodland over stoney plains
- Low Eucalyptus woodland over Triodia grasslands on stoney plains
- Low open woodlands over tussock grasslands on clay-loam plains; and,
- Triodia grasslands on gentle sloping stony plains.
-

The fauna survey effort recorded 128 species of vertebrae fauna to occur within the survey area of which five species of conservation significance were recorded in the wider survey (Rapallo, 2022)

Within the local area, available databases identified 3,472 mapped records of conservation significant fauna species occurs within the local area (50-kilometre radius of the application area). Of these species and noting the finding of the fauna survey and the flora and vegetation survey it was identified one species of conservation significance; the western pebble mound mouse (*Pseudomys chapmani*), is likely to occur. Whilst other conservation significant fauna have been identified within proximity to the application area, noting the roadside location and the habitat present, it is unlikely the application area provides critical habitat for other species. These other species may traverse the application area on occasions or forage within the area, however critical habitat roosting, denning and burrowing habitat is not present within the application area.

The western pebble-mound mouse is typically associated with spinifex grasslands on stony soils where it builds and resides in mounds. According to available databases there are 698 records of the western pebble-mound mouse in the local area, the nearest being 1.47 km from the application area. Noting the application area comprises of Triodia grasslands with stony plains and is intersected by multiple non-perennial drainage lines, it is likely for the western pebble-mound mouse to occur within the application area. Whilst the western pebble mound mouse is likely to occur within the application area noting the large home range of this species, it is unlikely the application area consists of critical habitat for the species and in the context of the wider area more appropriate habitat exists outside the application area.

Conclusion
Based on the above assessment, the proposed clearing will likely impact the western pebble-mound mouse noting appropriate habitat occurs within the application area.

For the reasons set out above, it is considered that the impacts of the proposed clearing on the western pebble-mound mouse can be managed through fauna management conditions as described below.

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

- Fauna spotter to be present during the clearing to ensure any fauna present at the time of the clearing will move to adjacent vegetation prior to clearing.

3.2.2. Biological values (Flora) - Clearing Principles (a)

Assessment

Three flora and vegetation surveys were commissioned over the application area which included both detailed and targeted surveys. The surveys were conducted in April 2020, May 2021, March, April, June and July 2022 (*Rapallo 2021, Rapallo 2022a & Unwelt 2022)*.

The Delegated Officer considered the consistency of the surveys with the EPA Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (EPA, 2016). It was determined the survey was appropriate to identify the presence of conservation listed flora within the survey area; which are known to occur within the local area.

The Umwelt (2022) survey concluded the vegetation within the application area varies from completely degraded to excellent condition (Trudgen,1991). Six vegetation types were described to occur within the application area (Rapallo 2021, Rapallo 2022a & Unwelt 2022) including;

- low open *Eucalyptus* woodland over grass on a stony plain,
- Acacia low open woodland over open tussock grassland on gently sloping drainage plain with rock cover,
- Acacia low open woodland over open spinifex and tussock grassland on flat plain,
- Acacia, *Hakea* and *Eucalyptus* low open woodland over tussock grassland on gently sloping clay-loam plain,
- low Acacia woodland over sparse understorey on stony plain,
- grassland with emergent shrubs and low trees on gently sloping stony plain.

The surveys identified 19 native flora species occurred within the application area, of which two species were identified as priority species (Rapallo 2021, Rapallo 2022a & Unwelt 2022).

DWER's assessment undertook a likelihood of occurrence analysis which identified 65 conservation listed flora species that occur within the local 50-kilometre radius of the application area. Of these the DWER's assessment identified two species are likely to occur within the application area. This is based on known records within the local area and habitat suitability within the survey area.

- *Aristida jerichoensis var. subspinulifera* (P3)
- *Aristida lazaridis* (P3)

Aristida jerichoensis var. subspinulifera

Within the local area 43 records of *Aristida jerichoensis var. subspinulifera* which have been recorded within available datasets. The nearest mapped record is located 851 metres from the application area.

This species is known to occur on plains or flat, clay/loam, often in mulga woodlands or acacia shrubland over spinifex and/or tussock grasslands (Rapallo, 2022). This habitat type is known to occur within the application area, therefore DWER's likelihood analysis determined this species is likely to occur within the application area.

The flora and vegetation surveys identified one individual which occurs within the application area and an additional 96 individuals are located approximately 370 metres north east of the application area (Unwelt, 2022). Noting the occurrence of *Aristida jerichoensis var. subspinulifera* within the application area is a single individual and given the

proximity to a larger population and the known occurrences within the local area, the removal of a single individual is unlikely to significantly impact the population and conservation status of this species.

Aristida lazaridis

Within the local area available datasets indicate there are 33 records of *Aristida lazaridis,* with the nearest record located approximately 1.45 kilometres from the application area. This species is known to occur in clay/loam soils on drainage lines and slopes. Habitat often comprises of mulga low open woodland with or without eucalyptus, over a variety of shrubs and herbs, often over tussock grassland and sometimes Triodia hummock grasslands (Rapallo, 2022). This habitat type is known to occur within the application area, therefore DWER's likelihood analysis determined this species is likely to occur within the application area. This species is a perennial tussock grass which occurs over a range of 130 kilometres within Western Australia. The Rapallo (2021a), survey identified approximately 12,773 plants from 6,757 point locations, over the 2020 and 2021 survey periods combined. Of the records identified within the surveys, there are no records within the application area; the nearest record is situated approximately 6 metres from the application area.

Whilst suitable habitat exists within the application area, noting the survey did not identify individuals within the application area, the species is unlikely to be impacted by the clearing. The surveys have also indicated a large population outside the application area which occurs more than 100 metres from the clearing. The applicant has also provided a Flora and vegetation management plan to further mitigate impacts to conservation flora (Mineral Resources, 2024).

Potentially undescribed flora

It is also to be noted during the Rapallo Targeted Survey (2022), a potentially undescribed flora species; *Euphorbia aff. Ferdinandi,* was identified during the survey. This species was identified from four locations near Great Northern Highway, with a total of 53 plants identified. The nearest identified record was located approximately 3 metres from the application area. Noting no individuals were identified within the application area, it is unlikely the clearing would impact this species and its conservation status if described as a new species of conservation significance.

Conclusion
Based on the above assessment, the proposed clearing is unlikely to significantly impact conservation significant flora. Whilst one individual of *Aristida jerichoensis var. subspinulifera* was identified within the application area, noting the abundance of this species outside the application area, the proposed clearing is unlikely to significantly impact this species. The applicant has also provided a Flora and Vegetation Management plan to further mitigate impacts to nearby flora.

Conditions
No flora management conditions are required, however to further address impacts to nearby populations of conservation significant flora, avoid, minimise and reduce impacts and extent of clearing and weed management is required as conditions on the clearing permit.

3.2.3. Land and water resources (Watercourses) - Clearing Principles (f)

Assessment

As the application area intersects or occurs within 50 metres of several non-perennial waterways, a portion of the application area may be considered to be growing in, or in association with a watercourse. Noting the location of the application area is situated within the Pilbara region, these non-perennial watercourses will only flow after heavy rainfall during the wet season. The applicant intends to upgrade the existing surface water drainage features and intends to install culverts to maintain water flow.

Given the water ways are non-perennial and flow only after heavy rainfall typically during the wet season it is not likely that the removal of native vegetation within these waterways will significantly impact the watercourses or the flow of surface water.

Conclusion
Based on the above assessment, the proposed clearing is unlikely to impact watercourses or the flow of surface water. It is considered that the impacts of the proposed clearing on watercourses can be managed via permit conditions to ensure surface water flows are maintained in the area.

Conditions

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

- Where watercourse is to be impacted by clearing the permit holder must: maintain surface water flow and install sediment and erosion control measures.

3.3. Relevant planning instruments and other matters

The Shire of East Pilbara were contacted to provide comment on the proposed clearing however no comments were received.

The applicant provided evidence that a bed and banks was applied for however, noting there will be no temporary diversion of any waterways during the construction of cross drainage infrastructure and noting this construction will occur in dry conditions a bed and banks permit is not required (Mineral Resources, 2025). (DWER has further considered impacts to the non-perennial waterways; see section 3.2.3).

The application area situated on Great Northern Highway relates to the larger mining approval for the Lamb Creek Iron Ore Project. On 15 April 2025 the applicant advised the Environmental Protection Authority determined to not assess the Lamb Creek Project under Part IV of the EP Act. Subsequently the proposed project was submitted to the Department of Mines, Petroleum and Exploration (DMPE) for assessment on 11 April 2025.

Until the Lamb Creek Project has been approved by DMPE, it would be environmentally harmful to grant a clearing permit without the associated approvals. On 23 September 2025, DMPE informed DWER the Lamb Creek Iron Ore Project will be granted in due course, and there were no concerns for DWER to proceed with a final decision of CPS 10934/1.

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

End

Appendix A. Additional information provided by applicant

Summary of comments	Consideration of comment
The applicant provided a Flora and Vegetation management plan to be implemented for all activities associated with the Lamb Creek project and Great Northern Highway intersection.	DWER's assessment considered this as an additional avoidance and mitigation measure (see section 3.1) and relevant for section 3.2.2
The applicant will implement a 5 metre buffer around priority flora and the potential undescribed flora where practicable.	DWER's assessment considered this as an additional avoidance and mitigation measure (see section 3.1)
The project design has been adjusted to avoid priority flora through moving the location of the stockpile and laydown area to the most southern portion of the application area, where no conservation significant flora were identified during the surveys.	DWER's assessment considered this as an additional avoidance and mitigation measure (see section 3.1)
Evidence provided advising the Lamb Creek Mine Project was determined to not be assessed under Part IV of the EP Act	DWER's assessment considered this as a planning and other matter (see section 3.3)
Bed and banks permit is not required as the installation of culverts will occur in dry conditions only and there will be no temporary diversion of any waterway during the construction of the cross drainage infrastructure.	DWER's assessment considered this as additional information relating to relevant planning and other matters (see section 3.3)

Appendix B. Site characteristics

Characteristic	Details
Local context	The application area is a 13.2-hectare footprint adjacent to the Great Northern Highway, approximately 100 kilometres North-west of Newman Townsite. The application area is situated within the extensive land use zone of Western Australia. It is situated within the mountainous Hamersley region consisting of road side vegetation. Spatial data indicates the local area (50-kilometre radius from the centre of the application area) retains approximately 99 per cent of the original native vegetation cover.
Ecological linkage	The application area is not mapped within any formal ecological linkages.
Conservation areas	The nearest conservation area is Karijini National Park located approximately 16 kilometres west of the application area.
Vegetation description	The vegetation survey's (Rapallo 2021, Rapallo 2022a & Unwelt 2022) indicates the vegetation within the application area consists of six different vegetation types: • Low open *Eucalyptus* woodland over grass on a stony plain, • Acacia low open woodland over open tussock grassland on gently sloping drainage plain with rock cover. • Acacia low open woodland over open spinifex and tussock grassland on flat plain. • Acacia, *Hakea* and *Eucalyptus* low open woodland over tussock grassland on gently sloping clay-loam plain. • Low Acacia woodland over sparse understorey on stony plain. • grassland with emergent shrubs and low trees on gently sloping stony plain. This is consistent with the mapped vegetation type(s): • Hamersley 82, which is described as hummock grasslands, shrub steppe; kanji over soft spinifex (Shepherd et al, 2001)

Characteristic	Details
	• Hamersley 18 which is described as low woodland; mulga (*Acacia aneura*) (Shepherd et al, 2001) The mapped vegetation types retain approximately 99 per cent of the original extent (Government of Western Australia, 2019).
Vegetation condition	The vegetation survey's (Rapallo 2021, Rapallo 2022a & Unwelt 2022) indicates the vegetation within application area is in completely degraded to excellent condition Trudgen, 1991 – refer to Appendix D for the full condition rating description.
Climate and landform	The application area is situated within the Pilbara regions which consists of a hot desert climate. The nearest weather station is situated at Newman townsite. Temperatures range from an average maximum of 39 °C in January and a minimum of 8.1°C in July. Annual average rainfall is 310.2 mm with higher falls occurring between January to March. The application area is situated on relatively flat terrain surrounded by hills.
Soil description	The soil is mapped as the Wannamunna System (285Wn) and Boolgeeda System (285Bg) which is described as; • 285Wn – Hardpan plains and internal drainage tracts supporting mulga shrublands and woodlands and occasionally eucalypt woodlands. • 285Bg - Stony lower slopes and plains below hill systems supporting hard and soft spinifex grasslands or mulga shrublands.
Land degradation risk	There are no mapped land degradation risks for the soil types of the application area, and the soils are not prone to degradation or susceptible to erosion (DPIRD, 2019)
Waterbodies	The desktop assessment and aerial imagery indicated that five non-perennial water courses intersect the application area, and no mapped wetland systems intersect the application area.
Hydrogeography	The application area is mapped within the Pilbara Surface Water area and Pilbara Groundwater area. The groundwater salinity is mapped as 500-1,000 TDS mg/L.
Flora	There are records of 65 conservation significant flora within the local area (50-kilometre radius). Of these records there are two threatened flora species, three priority 1, 10 priority 2, 44 priority 3 and six priority 4. The nearest mapped record is located approximately 850 meters from the application area.
Ecological communities	Within the local area there are six priority ecological communities. Coolibah- Lignum Flates is located the closest to the application area at 8.65 kilometres to the south.
Fauna	The local area (50-kilometre radius) consists of 3,472 mapped records of conservation significant fauna. These records consist of 25 different species consisting of one conservation dependent species, one critically endangered, one endangered species, five migratory bird species, one other specially protected, five vulnerable, four priority 1, two priority 2 and five priority 4. Two species are recorded within 1.5 kilometres of the application area.

Appendix C. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): *"Native vegetation should not be cleared if it comprises a high level of biodiversity."* Assessment: The application area contains locally and regionally significant flora, fauna and habitats.	May be at variance	Yes *Refer to Section 3.2.2, above.*
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."* Assessment: The application area contains suitable habitat for conservation significant fauna.	May be at variance	Yes *Refer to Section 3.2.1, above.*
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: *Seringia exastia* was found in the area during the 2021 survey and was listed as threatened under the BC Act at the time of survey, to date the species has been delisted. The application area is unlikely to contain flora species listed under the BC Act.	Not likely to be at variance	No .
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."* Assessment: The area proposed to be cleared does not contain species that can indicate a threatened ecological community.	Not at variance	No
Environmental value: significant remnant vegetation and conservation areas		
Principle (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."* Assessment: The extent of the mapped vegetation type and native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia. The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area.	Not likely to be at variance	No
Principle (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."* Assessment: 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 at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: land and water resources		
Principle (f): *"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."* Assessment: The application area intersects 5 non-perennial watercourses. Noting these watercourses are perennial the proposed clearing is unlikely to impact on- or off-site hydrology and water quality if existing surface flows are maintained.	At variance	Yes *Refer to Section 3.2.3, above.*
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The mapped soils are not susceptible to any land degradation risks. Noting the extent and location of the application area, the proposed clearing is not likely to have an appreciable impact on land degradation.	Not likely to be at variance	No
Principle (i): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."* Assessment: Noting there are no permanent water courses or wetlands and noting the application area is not mapped within a Public Drinking Water Sources Area, the proposed clearing is unlikely to impact surface or ground water quality.	Not likely to be at variance	No
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."* Assessment: The mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding. There is also no mapped flood risk over the application area	Not likely to be at variance	No

Appendix D. 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.

Condition	Description
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 E. Sources of information

E.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems

- Wheatbelt Wetlands Stage 1 (DBCA-021)

Restricted GIS Databases used:

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

E.2. References

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