



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 9975/1
Permit Holder:	DevelopmentWA
Duration of Permit:	From 07 March 2023 to 07 March 2028

ADVICE NOTE

The funds referred to in condition 8 of this permit are intended for contributing towards the purchase of 0.82 hectares of native vegetation, representative of native vegetation in an extensively cleared landscape.

The permit holder is authorised to clear *native vegetation* subject to the following conditions of this permit.

PART I – CLEARING AUTHORISED

1. Clearing authorised (purpose)

The permit holder is authorised to clear *native vegetation* for the purpose of inputting a non-standard firebreak.

2. Land on which clearing is to be done

Lot 512 on Deposited Plan 65452 (Reserve 49257), Morawa

3. Clearing authorised

The permit holder must not clear more than 0.07 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

4. Period during which clearing is authorised

The permit holder must not clear any *native vegetation* after 07 March 2028.

PART II – MANAGEMENT CONDITIONS

5. Avoid, minimise, and reduce impacts and extent of clearing

In determining the *native vegetation* authorised to be cleared under this permit, the permit holder must apply the following principles, set out in descending order of preference:

- (a) avoid the clearing of *native vegetation*;
- (b) minimise the amount of *native vegetation* to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

6. Weed management

When undertaking any clearing authorised under this permit, the permit holder must take the following measures to minimise the risk of introduction and spread of *weeds*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no known or *weed*-affected soil, *mulch*, *fill*, or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

7. Directional clearing

The permit holder must conduct clearing activities in a slow, progressive manner towards adjacent *native vegetation* to allow fauna to move into adjacent *native vegetation* ahead of the clearing activity.

8. Offsets – monetary contributions to the Offsets Fund

Prior to undertaking any clearing authorised under this permit, the permit holder must provide documentary evidence to the *CEO* that funding of \$13,940 has been transferred to the Department of Water and Environmental Regulation for the purpose of establishing or maintaining native vegetation as an environmental offset for the clearing activities authorised under this permit.

PART III - RECORD KEEPING AND REPORTING

9. Records that must be kept

The permit holder must maintain records relating to the listed relevant matters in accordance with the specifications detailed in Table 1.

Table 1: Records that must be kept

No.	Relevant matter	Specifications
1.	In relation to the authorised clearing activities generally	<ul style="list-style-type: none"> (a) the species composition, structure, and density of the cleared area; (b) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994/2020 (GDA94/20), expressing the geographical coordinates in Eastings and Northings; (c) the date that the area was cleared; (d) the size of the area cleared (in hectares); (e) actions taken to avoid, minimize ,and

No.	Relevant matter	Specifications
		<p>reduce the impacts and extent of clearing in accordance with condition 5;</p> <p>(f) actions taken to minimise the risk of the introduction and spread of <i>weeds</i> in accordance with condition 6;</p> <p>(g) actions taken in accordance with condition 7; and</p> <p>(h) actions taken in accordance with condition 8.</p>

10. Reporting

The permit holder must provide to the *CEO* the records required under condition 9 of this permit when requested by the *CEO*.

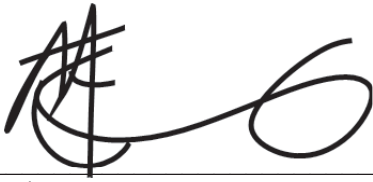
DEFINITIONS

In this permit, the terms in Table have the meanings defined.

Table 2: Definitions

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the <i>Environmental Protection Act 1986</i> .
clearing	has the meaning given under section 3(1) of the EP Act.
condition	a condition to which this clearing permit is subject under section 51H of the EP Act.
fill	means material used to increase the ground level, or to fill a depression.
department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
EP Act	<i>Environmental Protection Act 1986</i> (WA)
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
weeds	<p>means any plant –</p> <p>(a) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i>; or</p> <p>(b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or</p> <p>(c) not indigenous to the area concerned.</p>

END OF CONDITIONS

A handwritten signature in black ink, appearing to read 'M. Gannaway', written over a horizontal line.

Mathew Gannaway
MANAGER
NATIVE VEGETATION REGULATION

*Officer delegated under Section 20
of the Environmental Protection Act 1986*

10 February 2023

Schedule 1

The boundary of the area authorised to be cleared is shown in the map below (Figure 1).



Figure 1: Map of the boundary of the area within which clearing may occur



Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 9975/1
Permit type:	Area permit
Applicant name:	Development WA
Application received:	18 November 2022
Application area:	0.07 hectares of native vegetation
Purpose of clearing:	Fire mitigation
Method of clearing:	Mechanical
Property:	Lot 512 on Deposited Plan 65452 (Reserve 49257)
Location (LGA area/s):	Shire of Morawa
Localities (suburb/s):	Mimegarra

1.2. Description of clearing activities

The vegetation proposed to be cleared is 0.07 hectares of vegetation, adjacent to agricultural and urban areas. The proposed clearing is required for the construction of a non-standard firebreak to assist development on the adjacent block (see Figure 1, Section 1.5).

1.3. Decision on application

Decision:	Granted
Decision date:	10 February 2023
Decision area:	0.07 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 A), relevant datasets (see Appendix F.1), the findings of a flora and vegetation survey, site photos (see Appendix E), the clearing principles set out in Schedule 5 of the EP Act (see Appendix B), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3). The Delegated Officer also took into consideration that the purpose of the clearing was a commitment by Government to establish low cost social housing in the region. In particular, the Delegated Officer has considered the following:

- The application area is located within the Avon Wheatbelt region that retains 18.51 per cent of native vegetation cover, which is below the National Target of 30 per cent. The local area (10 kilometre radius) retains approximately 19.39 per cent native vegetation cover. The proposed clearing will contribute to the cumulative loss of native vegetation in the region and local area that have been extensively cleared.

- The proposed clearing is unlikely to remove significant habitat for fauna.
- The proposed clearing may introduce and spread weeds into adjacent remnant vegetation. The potential impacts can be minimised and mitigated through weed and dieback management measures.
- The soils of the area are prone to wind erosion. Clearing may exacerbate the risk. Considering the limited extent of clearing; it is considered that the proposed clearing is unlikely to lead to appreciable and long-term land degradation.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined the proposed clearing is unlikely to lead to appreciable land degradation or severance of significant ecological linkages. However, the Delegated Officer is of the view that clearing within the extensively cleared landscape is significant, and residual environmental impacts remain. In accordance with the Western Australian Offsets Policy (2011), the proposed clearing must be offset (see Section 4).

The Delegated Officer considered the quantification of the offset required in accordance with the Western Australian Environmental Offset Calculator and Guide (Appendix D). DevelopmentWA have committed to monetary a contribution which will be used for the purchase of 0.82 hectares of native vegetation within the local area that occurs in an area that has been extensively cleared, to be protected in perpetuity and ceded to Department of Biodiversity, Conservation and Attractions (DBCA).

Given the above, the Delegated Officer is satisfied that the environmental impacts associated with this project have been appropriately avoided, minimised and mitigated and the significant residual impacts offset. The Delegated Officer has therefore decided to grant this clearing permit subject to conditions to:

- avoid, minimise to reduce the impacts and extent of clearing
- take hygiene steps to minimise the risk of the introduction and spread of weeds
- undertake slow, progressive one directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity
- offset measures:
 - a monetary contribution which will be used for the purchase of 0.82 hectares of native vegetation within the local area that occurs in an area that has been extensively cleared, to be protected in perpetuity and ceded to DBCA.

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)
- *Planning and Development Act 2005* (WA) (P&D Act)
- *Soil and Land Conservation Act 1945* (WA)

Relevant policies considered during the assessment include:

- *Environmental Offsets Policy* (2011)

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)
- *Environmental Offsets Guidelines* (August 2014)
- Technical guidance – *Flora and Vegetation 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 that the proposed clearing area is only to the extent necessary.

- The clearing is to the minimum extent required to reduce the Bushfire Attack Level (BAL) rating of the building proposed for the adjacent lot. The reduced BAL rating ensures delivery costs remain affordable.
- Two trees on the western edge of the lot will be retained

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.

After consideration of the avoidance and mitigation measures, it was determined that a significant residual impact remained, consisting of 0.07 hectares considered a significant remnant of native vegetation in an extensively cleared landscape. In accordance with the Government of Western Australia's *Environmental Offsets Policy* and *Environmental Offsets Guidelines*, this significant residual impact has been addressed through the conditioning of environmental offset requirements on the permit. The nature and suitability of the offset provided are summarised in Section 4.

3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix A) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values.

The assessment against the clearing principles (see Appendix B) identified that the impacts of the proposed clearing present a risk to biological values (flora and fauna) and significant remnant vegetation in an extensively cleared landscape. 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 (flora and fauna) - Clearing Principles (a) (b) and (c)

Assessment

The vegetation within the application area is comprised of a mixed shrubland, described as *Melaleuca stereophloia* low woodland over *Acacia acuminata* / *A. longiphyllodinea* open shrubland over *Waitzia acuminata* / *Schoenia cassiniana* / *Dianella divaricata* var. *revoluta* herbland (ENV, 2009; DevelopmentWA, 2022b).

Fauna

According to available database, four fauna species of conservation significance occur within the local area (10 kilometres of the application area). Comprising two bird species, one mammal and one reptile. None of these records occur within the application area. In determining the likelihood of conservation significant fauna occurring within the application area, considerations were given to number of records in the local area, preferred habitat types and typical home ranges, proximity of records to the application area, the type and condition of the vegetation within the application area and historical nature of the records. A summary of fauna recorded within the local area is provided in Appendix A.

The likelihood assessment considered that the application area contains potential habitat for two of the four conservation significant fauna species identified within the local area: bilby (*Macrotis lagotis*) and Malleefowl (*Leipoa ocellata*). Given the lack of recent records within the local area these species are considered unlikely to occur within the proposed clearing area.

The application area is located on the edge of the known distribution of the endangered Carnaby's cockatoos, the nearest recorded is 0.95 kilometres from the application area. According to available databases, there are no known black cockatoo roost or breeding sites within the local area, with the closest known breeding site located 17 kilometres south of the application area. Noting this, the extent of vegetation to be cleared and the lack of suitable species for foraging, roosting or nesting habitat for Carnaby's cockatoo, the application area is not considered to contain suitable habitat for this species.

The vulnerable listed western spiny-tailed skink (*Egernia stokesii badia*) was recorded 1.07 kilometres from the application area and databases show 17 records within the local area. This species inhabits open eucalypt woodlands and acacia-dominated shrublands; known to shelter in logs, cavities in the trunks and branches of shrubs, and accumulations of old corrugated iron. Given the habitat requirements for this species and the number of records within the local area, it is considered possible that the application area could be utilised by western spiny-tailed skinks. Given the extent of vegetation proposed to be cleared and the availability of similar vegetation adjacent to the application area, the proposed clearing area is not considered to comprise vegetation necessary for the maintenance of significant habitat for this species. Slow, directional clearing will mitigate against impacts to individuals that may be present at the time of clearing.

The application area is located on the edge of a patch of remnant vegetation, adjacent to roads and areas cleared for housing development. Given this and the extent of vegetation proposed to be cleared, the application area is not considered to provide an ecological linkage function for fauna within the local area.

Flora

According to available databases, 23 conservation significant flora records occur within the local area, including five threatened species and 18 priority listed species. There are records of nine priority flora species within one kilometre of the proposed clearing, all of which are found on the same soil type as the application area.

The likelihood of conservation significant flora occurring within the application area was determined by considering the number of records in the local area, habitat requirements, proximity of records to the application area, the type and condition of the vegetation within the application area and historical nature of the records. A summary of flora recorded within the local area is provided in Appendix A.

The flora and vegetation assessment conducted by ENV Australia in 2009 (ENV, 2009) covered a study area of 38 hectares, extending beyond the application area. No priority or threatened flora were recorded within the survey area. Photographs provided by DevelopmentWA indicated the vegetation within the application area remains consistent with the survey results from ENV Australia (DevelopmentWA, 2022b) (see Appendix E).

Of the conservation significant flora recorded within the local area, four species were considered possible to occur based on their soil and habitat requirements: *Verticordia comosa* (P1), *Hibbertia cockertoniana* (P3), *Darwinia* sp.

Morawa (C.A. Gardner 2662) (P3) and *Verticordia capillaris* (P4). No threatened flora were considered likely to occur. When taking into consideration the results of the previous survey (ENV, 2009) and the photographs of the application area provided (DevelopmentWA, 2022b), it was considered unlikely that the above four priority species occur within the application area.

Given the flora and vegetation survey identified weeds within the application area, the proposed clearing has the potential to cause the introduction and spread of weeds nearby vegetation, which could impact on the quality of the vegetation.

Conclusion

Given the lack of suitable habitat and recent records within the local area, the application area is considered unlikely to contain significant habitat for conservation significant fauna, nor be significant for the continued survival of conservation significant fauna.

Given the previous survey results (ENV, 2009) and the extent of the application area, the proposed clearing is unlikely to contain a high level of biodiversity, conservation significant flora species or communities. In particular the application area is not considered to contain vegetation necessary for the continued existence of, threatened flora. The proposed clearing, however, has the potential to cause the introduction and spread of weeds nearby vegetation, which could impact on the quality of the vegetation.

Conditions

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

- avoidance and minimisation to reduce the impacts and extent of clearing;
- weed and dieback management measures will be required as a condition on the clearing permit to mitigate impacts to adjacent vegetation;
- undertake slow, progressive one directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity.

3.2.2. Significant remnant vegetation - Clearing Principle (e)

Assessment

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750 (i.e. pre-European settlement) (Commonwealth of Australia 2001). This is the threshold level below which species loss appears to accelerate exponentially at an ecosystem level. The application area falls within the 'Avon Wheatbelt' IBRA which is extensively cleared and currently retains approximately 18.51 per cent of the pre-European vegetation (Government of Western Australia, 2019). The local area (10 kilometres from the application area) retains 19.39 per cent of the of the pre-European vegetation extent. Given the above, the local area is considered to fall within an extensively cleared area.

There are two dominant Beard vegetation associations mapped across the local area, the Yarra yarra_142 and Perenjori_551 associations (Figure 2). The application area falls within the mapped Yarra yarra_142 association. The Yarra yarra_142 vegetation association is described as: Wheatbelt; York gum, salmon gum etc. *Eucalyptus loxophleba*, *E. salmonophloia*. The vegetation type identified within the application area (ENV, 2009) is not representative of this vegetation association, however, it is representative of the mapped vegetation association Perenjori_551. The nearest occurrence of this vegetation association is located one kilometre from the application area.

The Perenjori_551 association is described as: Wattle, casuarina and teatree (Acacia, Allocasuarina and Melaleuca alliance). Across the wheatbelt this vegetation association retains approximately 11.6 per cent of the original extent. The vegetation within the application area consists of *Melaleuca stereophloia* low woodland over *Acacia acuminata*, *A. longiphyllodinea* open shrubland over *Waitzia acuminata*, *Schoenia cassiniana*, *Dianella divaricata* var. *revoluta* herbland, in very good condition (ENV, 2009; DevelopmentWA, 2022b). Supporting photographs of the application area provided by DevelopmentWA indicate the vegetation described by ENV in 2009 is representative of the current vegetation type and condition within the application area with the exception that *Allocasuarina* spp. also occurs within the proposed clearing area.

Noting the presence of weeds within the application area (ENV, 2009; DevelopmentWA, 2022b), clearing may facilitate the spread and introduction of weeds to adjacent vegetation.

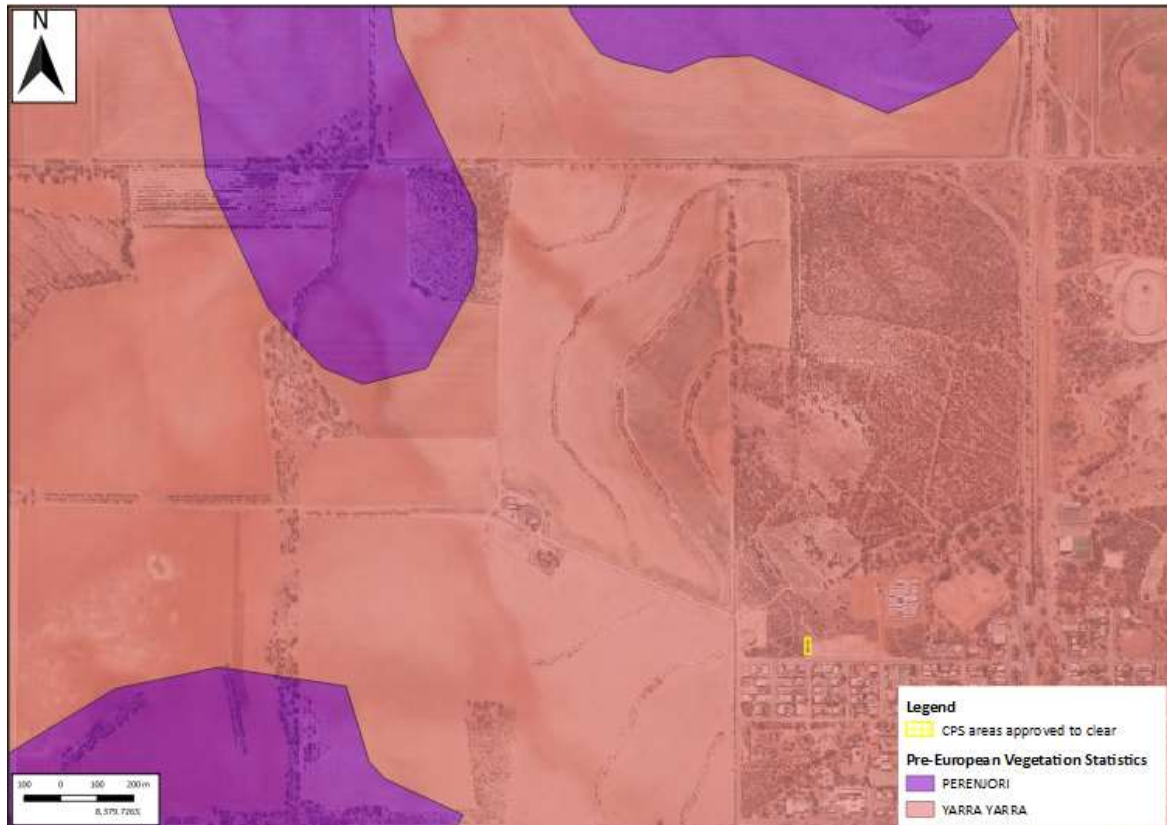


Figure 2 Pre-European vegetation mapped across the local area

Conclusion

As discussed within Section 3.2.1, the application area is unlikely to contain conservation significant fauna, flora species or communities. While the vegetation within application area is not considered to provide a linkage across within the local area, it is considered significant as a remnant due to the highly cleared nature of the vegetation association Perenjori_551 across the Avon Wheatbelt and the vegetation within the local area. The proposed clearing and associated clearing activities have the potential to introduce and/or spread weeds into the surrounding vegetation which may lead to further loss in quality of vegetation.

Conditions

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

- avoidance and minimisation to reduce the impacts and extent of clearing;
- weed and dieback management measures will be required as a condition on the clearing permit to mitigate impacts to adjacent vegetation;
- environmental offsets (as detailed in Section 4 below)

3.3. Relevant planning instruments and other matters

The Shire of Morawa advised the department that local government approvals are not required, and that the proposed clearing is consistent with the Shire's Local Planning Scheme. The Shire did not have any objections to the proposed clearing (Shire of Morawa, 2022).

Several Aboriginal sites of significance have been mapped within the local 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.

4 Suitability of offsets

Through the detailed assessment outlined in Section 3.2 above, the Delegated Officer has determined that the following significant residual impacts remain after the application of the avoidance and mitigation measures summarised in Section 3.1:

- Clearing of 0.07 hectares of a significant remnant of vegetation in a region and local area that have been extensively cleared.

The department proposed the following offset opportunities to the DevelopmentWA:

- Revegetation from degraded to very good condition of approximately 0.18 hectares of native vegetation that is a significant remnant within an extensively cleared landscape.
- Conservation of approximately 0.82 hectares of remnant native vegetation that is a significant remnant within an extensively cleared.

As part of the assessment of offset opportunities the DevelopmentWA noted the following:

- DevelopmentWA have been in liaison with the Department of Planning, Lands and Heritage and were advised that the land enquiry has a statutory time frame associated with it and has no guarantee of an outcome.
- DevelopmentWA and the landowners have contacted the department to advise that the delay in finalising the clearing permit application is increasing the cost of the build due to building supply increases. The development was a commitment by Government to establish low cost social housing in the region.

Given the above, DevelopmentWA proposed an environmental offset consisting of a monetary contribution which will be used for the purchase of 0.82 hectares of native vegetation to be protected in perpetuity and ceded to DBCA. Noting the values that are required to be purchased by the department, and the purpose of the clearing is to assist in the building of low cost social housing, the Delegated Officer considered that a monetary contribution to Part V Offsets Fund is appropriate in this instance.

To determine that the offset would be adequately proportionate to the significance of the environmental values being impacted, the department undertook a calculation using the WA environmental offsets calculator. The justification for the values used in the offset calculation is provided in Appendix D. The Delegated Officer considers that the proposed offset is consistent with the WA *Environmental Offsets Policy* (2011) and the WA *Environmental Offsets Guidelines* (2014), and adequately counterbalances the significant residual impacts listed above.

The applicant's monetary contribution was determined based on current land values of a 0.82 hectare parcel of vegetation within the Shire of Morawa (\$17,000 per hectare) to a total of \$13,940. The receipt of funds will be used to acquire vegetated land within the region that contain the same environmental values being impacted by the proposed clearing.

End

Appendix A. Site characteristics

The information provided below describes the key characteristics of the area proposed to be cleared and is based on the best information available to DWER at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix B.

Characteristic	Details
Local context	<p>The area proposed to be cleared is located within the intensive land use zone of the Wheatbelt region of Western Australia. It is surrounded by rural industry, farms, dwellings and intact remnant native vegetation.</p> <p>Aerial imagery indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 19.4 per cent of the original native vegetation cover.</p>
Ecological linkage	The application area is not located within any mapped formal ecological linkages and is unlikely to serve any potential linkage function.
Conservation areas	The application area is not located within a conservation area. The nearest conservation area is the Koolanooka Dam Nature Reserve, located 10.3 kilometres from the application area.
Vegetation description	<p>Photographs and a vegetation survey report supplied by the applicant (ENV Australia, 2009) indicate that the proposed clearing areas consists of <i>Melaleuca stereophloia</i> low woodland over <i>Acacia acuminata</i> / <i>A. longiphyllodinea</i> open shrubland over <i>Waitzia acuminata</i> / <i>Schoenia cassiniana</i> / <i>Dianella divaricata</i> var. <i>revoluta</i> herbland. Survey descriptions and photos are available in Appendix E.</p> <p>The vegetation within the application area is consistent with parts of the Avon Wheatbelt bioregion's vegetation, however it is inconsistent with the broadly mapped Yarra Yarra vegetation association, which is described as medium woodlands of York gum & salmon gum (Shepherd et al., 2001).</p> <p>The mapped vegetation type retains approximately 11.07 per cent of the original extent (Government of Western Australia, 2019).</p>
Vegetation condition	<p>Photographs and vegetation survey (ENV, 2009) indicate the vegetation within the proposed clearing area is in very good condition (Keighery, 1994).</p> <p>The full Keighery (1994) condition rating scale is provided in Appendix C. Representative photos and survey descriptions are available in Appendix E.</p>
Climate and landform	The Morawa region has a dry warm Mediterranean climate, with an average temperature of 27.4°C. During summer, maximum temperatures may reach 36.7°C, whilst in winter, minimum temperatures may reach 6.2°C.
Soil description	The soil is mapped as Morawa 1 subsystem, described as low rises and ridges with gentle upper slopes; shallow sands and loams over granite and red-brown hardpan.
Land degradation risk	The application area and its local context are mapped as having low risk to water erosion, salinity, flooding, waterlogging and phosphorus export. The mapped soils are moderately susceptible to wind erosion and highly susceptible to substrate acidification.
Hydrogeography and Waterbodies	<p>The application area is located within the Gascoyne ground water area proclaimed under the RIWI Act.</p> <p>The desktop assessment and aerial imagery indicated that the proposed clearing area will not intersect any watercourses or waterbodies. The nearest waterbody is associated with saltpans located 3.2 kilometres south-east of the application area.</p>
Flora	A total of 23 flora records in local area, including five threatened species and 18 priority listed species. There are records of nine priority flora within one kilometre, all of which are found on the same soil type as the application area.

Characteristic	Details
Ecological communities	The proposed clearing area does not intersect any mapped Priority or Threatened Ecological Communities. One TEC (Wheatbelt woodlands) has been recorded within the local area with the nearest occurrence 6.1 kilometres south-east of the application area.
Fauna	A total of four fauna records in local area, the nearest record is a Bilby recorded 0.19 kilometres from the application area. The application area is located within the mapped breeding distribution of Carnaby's black cockatoo.

A.1. Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre-European extent in all DBCA managed land
IBRA bioregion*					
Avon Wheatbelt	9,517,109.95	1,761,187.42	18.51	174,980.68	1.84
Vegetation association*					
Yarra Yarra_142	107,151.56	11,856.65	11.07	163.19	0.15
Perenjori_551	107,903.35	12,547.46	11.63	477.93	3.81
Local area					
10km radius	31,564.28	6,119.93	19.39	-	-

*Government of Western Australia (2019)

A.2. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix F.1), photographs provided (DevelopmentWA, 2022b) and biological survey information (ENV, 2009), impacts to the following conservation significant flora required further consideration.

Species 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)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>Acacia pterocaulon</i>	P1	Y	Y	Y	0.48	2	Y
<i>Verticordia comosa</i>	P1	Y	N	Y	0.48	1	Y
<i>Calytrix ecalycata</i> subsp. <i>ecalycata</i>	P3	Y	Y	Y	0.48	2	Y
<i>Grevillea tenuiloba</i>	P3	N	Y	Y	0.48	1	Y
<i>Hibbertia cockertoniana</i>	P3	Y	Y	Y	0.48	1	N
<i>Verticordia capillaris</i>	P4	Y	Y	Y	0.48	1	Y
<i>Androcalva adenothealia</i>	T	N	Y	Y	0.48	1	N
<i>Grevillea bracteosa</i> subsp. <i>howatharra</i>	T	N	N	Y	0.48	1	Y
<i>Darwinia</i> sp. Morawa (C.A. Gardner 2662)	P3	Y	Y	Y	0.94	1	Y

Species 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)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>Eucalyptus synandra</i>	T	N	Y	Y	1.54	1	Y
<i>Mirbelia</i> sp. Ternata (M.D. Crisp & L.G. Cook MDC 9267)	P1	N	Y	Y	4.38	4	N
<i>Gyrostemon reticulatus</i>	T	Y	Y	Y	4.60	1	N
<i>Grevillea leptopoda</i>	P3	N	Y	Y	8.83	1	Y

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

A.3. Fauna analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix F.1) and photographs provided (DevelopmentWA, 2022b), impacts to the following conservation significant fauna required further consideration.

Species name	Conservation status	Suitable habitat features ? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>Macrotis lagotis</i> (Bilby)	VU	N	Y	0.19	1	N
<i>Calyptorhynchus latirostris</i> (Carnaby's cockatoo)	EN	N	N	0.95	1	N
<i>Egernia stokesii badia</i> (western spiny-tailed skink)	VU	N	N	1.07	17	N
<i>Leipoa ocellata</i> (Malleefowl)	VU	N	Y	1.34	3	N

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

Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<p><u>Principle (a):</u> "Native vegetation should not be cleared if it comprises a high level of biodiversity."</p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared does not contain any records of conservation significant flora, fauna or communities. Given the extent of clearing, the proposed clearing is not considered likely to comprise a high level of biodiversity.</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.1, above.</i>
<p><u>Principle (b):</u> "Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."</p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared does not contain significant habitat necessary for the maintenance of conservation significant fauna (ENV, 2009).</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.1, above.</i>

Assessment against the clearing principles	Variance level	Is further consideration required?
<p><u>Principle (c):</u> <i>“Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</i></p> <p><u>Assessment:</u></p> <p>A flora and vegetation survey conducted across the application area (ENV, 2009) recorded no conservation significant flora taxa. Given this, the photographs of the application area supplied, and the extent of application area, it is considered unlikely to contain habitat for threatened flora.</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.1, above.</i>
<p><u>Principle (d):</u> <i>“Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community.”</i></p> <p><u>Assessment:</u></p> <p>The local area contains many occurrences of the Eucalypt Woodlands Threatened Ecological Community (TEC). The vegetation within the application does not contain species consistent with those of the Eucalypt Woodlands TEC. The flora and vegetation survey, and photographs of the application area provided, indicate that no TECs listed under the BC Act or EPBC Act occur within the proposed clearing area. The native vegetation proposed to be cleared does not comprise the whole or a part of, nor is it necessary for, the maintenance of a TEC.</p>	Not likely to be at variance	No
Environmental value: significant remnant vegetation and conservation areas		
<p><u>Principle (e):</u> <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u></p> <p>The extent of the native vegetation in the local area is less than 30 per cent which is inconsistent with the national objectives and targets for biodiversity conservation in Australia.</p>	At variance	Yes <i>Refer to Section 3.2.2, above.</i>
<p><u>Principle (h):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.”</i></p> <p><u>Assessment:</u></p> <p>Given the distance to the nearest conservation area is 10.3 kilometres from the application area, the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.</p>	Not likely to be at variance	No
Environmental value: land and water resources		
<p><u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u></p> <p>Given no water courses or wetlands are recorded within three kilometres of the application area, the proposed clearing is not associated with a watercourse or wetland.</p>	Not at variance	No
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u></p> <p>The application area and its local context are mapped as having low risk to water erosion, salinity, flooding, waterlogging and phosphorus export. The mapped soils are moderately susceptible to wind erosion and highly susceptible to substrate acidification. Soils will not be excavated at depth,</p>	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
and groundwater will not be intersected, reducing the risk of exposing any acid sulphate soils. Given this and the extent of clearing proposed, the clearing is unlikely to cause appreciable land degradation.		
<p><u>Principle (i):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.”</p> <p><u>Assessment:</u></p> <p>No water courses or wetlands are recorded within the application area. The proposed clearing will not intercept any surface or groundwater resources. Therefore, the proposed clearing is unlikely to impact surface or ground water quality.</p>	Not at variance	No
<p><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.”</p> <p><u>Assessment:</u></p> <p>The mapped soils and topographic contours in the surrounding area do not indicate the potential for the proposed clearing to contribute to increased incidence or intensity of flooding. Given the extent and purpose of the proposed clearing and given no water courses or wetlands are recorded within the application area, the proposed clearing is unlikely to contribute to waterlogging.</p>	Not likely to be at variance	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 Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Measuring vegetation condition for the South West and Interzone Botanical Province (Keighery, 1994)

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.
Very good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.

Condition	Description
Completely degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

Appendix D. Offset calculator value justification

Calculation	Score (Area)	Rationale
Conservation significance		
Description	Significant remnant vegetation	Available databases indicate the local area and mapped Beard vegetation retains less than 30 per cent of the of the pre-European vegetation extent. Vegetation in good condition (ENV, 2009).
Type of environmental value	Vegetation	Vegetation considered significant as a remnant due to the highly cleared nature of the vegetation within the local area
Conservation significance of environmental value	Terrestrial native vegetation complex - <30% extent remaining in the bioregion	Vegetation resembles the Perenjori_551 association, which has 11.6 per cent remaining within the local area.
Landscape level value impacted	Yes/No	Yes
Significant impact		
Description	Significant remnant vegetation	Available databases indicate the local area and mapped Beard vegetation retains less than 30 per cent of the of the pre-European vegetation extent. Vegetation in good condition (ENV, 2009).
Significant impact (hectares)	0.07	The application area is 0.07 hectares
Quality (scale)	7.00	Flora and vegetation survey (ENV, 2009) and photographs provided indicate the vegetation is in good condition and provides moderate habitat values for fauna.
Rehabilitation credit		
N/A	N/A	DevelopmentWA has proposed a monetary contribution as an offset. No revegetation proposed on site.
Offset		
Description	Monetary contribution	Land acquisition is the proposed offset for this application.
proposed offset (area in hectares)	0.82	The area required to be conserved to offset the loss of 0.07 hectares of vegetation that is significant as a remnant in an extensively cleared landscape.
Current quality of offset site	6	As the site has not yet been identified, it is envisaged that the department will purchase a site where the native vegetation is in 'good to very good' condition (Keighery, 1994)
Future quality WITHOUT offset	6	As the site has not yet been identified, the site's quality is considered unlikely to improve or decline beyond its current quality over the next 20 years.
Future quality WITH offset	6	No on-ground management is proposed as part of the offset, and thus the site's quality is considered unlikely to improve beyond its current quality over the next 20 years.
Time until ecological benefit (years)	1	It is expected that the transfer will be complete within 12 months.
Confidence in offset result (%)	0.95	There is a high level of confidence that the land will be purchased and that the habitat quality will not deteriorate with the offset's implementation.

Calculation	Score (Area)	Rationale
Duration of offset implementation (maximum 20 years)	20	The offset site will be protected in perpetuity – the mechanism for this is yet to be determined, however transfer to conservation tenure is preferred.
Time until offset site secured (years)	2	The administrative process of executing the purchase can be achieved within two years.
Risk of future loss WITHOUT offset (%)	15%	There is a moderate risk of loss. It is expected that the department will be purchasing a property that is zoned 'rural'.
Risk of future loss WITH offset (%)	5%	Having the site managed for conservation by DBCA would reduce the potential impact of development and restrict the type of activities that can occur.
Offset ratio (Conservation area only)	N/A	
Landscape level values of offset?	N/A	

Appendix E. Biological survey information excerpts (ENV, 2009) and photographs of the vegetation (DevelopmentWA, 2022b)

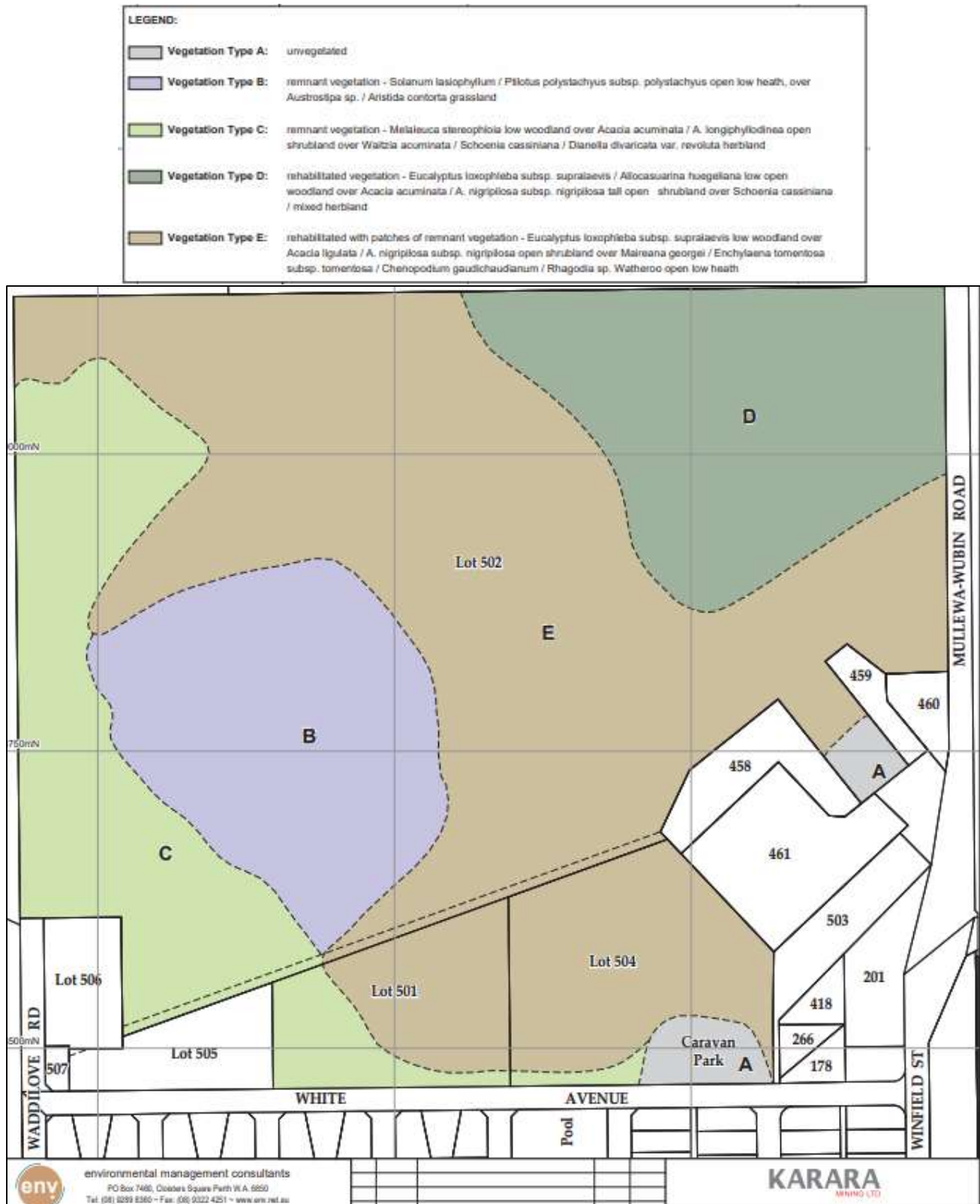


Figure 3. Vegetation communities recorded within the survey area (ENV, 2009)

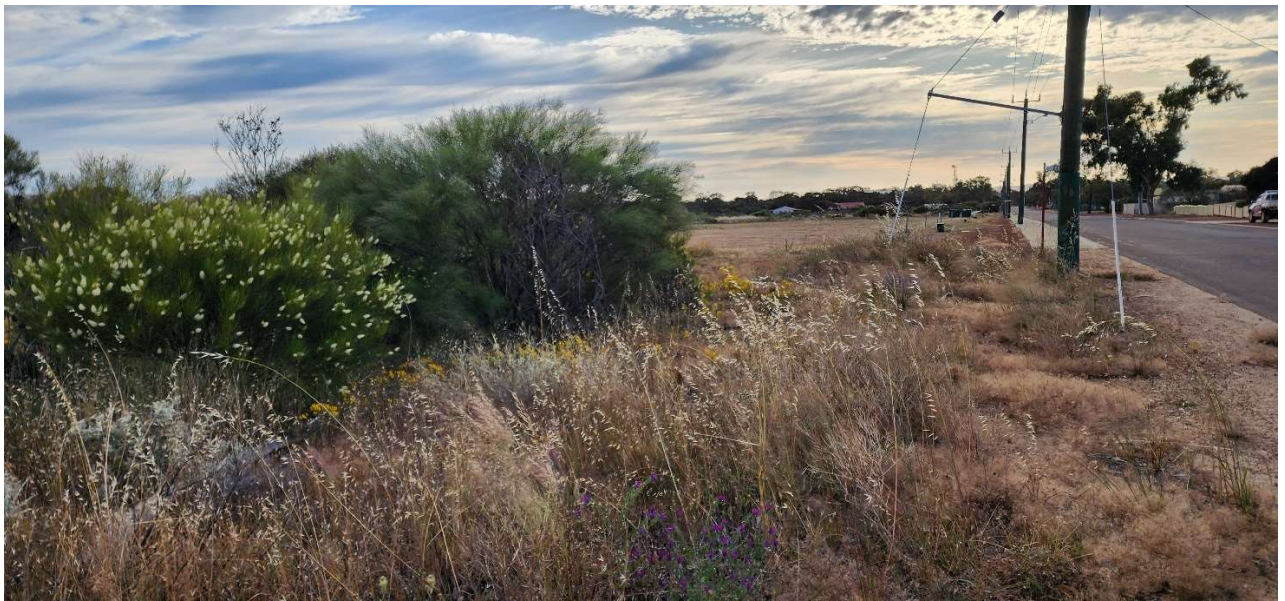


Figure 4. Photographs of the vegetation within the proposed clearing area (DevelopmentWA, 2022b)

Appendix F. Sources of information

F.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- 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)
- Native Title (ILUA) (LGATE-067)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems
- 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)

F.2. References

DevelopmentWA (2022a) *Clearing permit application CPS 9975/1*, received 18 November 2022 (DWER Ref: DWERT11469).

DevelopmentWA (2022b) *Supporting information for clearing permit application CPS 9975/1*, received 23 November 2022 (DWER Ref: DWERT690791).

- ENV Australia (2009) Flora and Vegetation assessment, received 21 December 202120 (DWER Ref: DWERDT703655).
- Commonwealth of Australia (2001) *National Objectives and Targets for Biodiversity Conservation 2001-2005*, Canberra.
- Department of Environment Regulation (DER) (2013). *A guide to the assessment of applications to clear native vegetation*. Perth. Available from: https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf.
- Department of Primary Industries and Regional Development (DPIRD) (2019). *NRInfo Digital Mapping. Department of Primary Industries and Regional Development*. Government of Western Australia. URL: <https://maps.agric.wa.gov.au/nrm-info/> (accessed 10 January 2023).
- Department of Water and Environmental Regulation (DWER) (2019). *Procedure: Native vegetation clearing permits*. Joondalup. Available from: https://dwer.wa.gov.au/sites/default/files/Procedure_Native_vegetation_clearing_permits_v1.PDF.
- Environmental Protection Authority (EPA) (2016). *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment*. Available from: http://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey_Dec13.pdf.
- Government of Western Australia. (2019) *2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>
- Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68) *Atlas of Australian Soils*, Sheets 1 to 10, with explanatory data. CSIRO and Melbourne University Press: Melbourne.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) *Native Vegetation in Western Australia, Extent, Type and Status*. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- Shire of Morawa (2022) *Advice for clearing permit application CPS 9975/1*, received 23 December 2023 (DWER Ref: DWERDT704790).
- Valentine, L.E. and Stock, W. (2008) *Food Resources of Carnaby's Black Cockatoo (Calyptorhynchus latirostris) in the Gnarara Sustainability Strategy Study Area*. Edith Cowan University and Department of Environment and Conservation. December 2008.
- Western Australian Herbarium (1998-). *FloraBase - the Western Australian Flora*. Department of Biodiversity, Conservation and Attractions, Western Australia. <https://florabase.dpaw.wa.gov.au/> (Accessed 10 January 2023)