GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 9136/1
Permit Holder:	Whitmore Gardens Pty Ltd
Duration of Permit:	From 22 March 2021 to 22 March 2027

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 vehicle access to support power supply upgrades

2. Land on which clearing is to be done

Butcher Road reserve (PIN 11470142), Darling Downs

3. Clearing authorised

The permit holder must not clear more than 0.156 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 22 March 2026.

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 and dieback 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* and *dieback*:

(a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;

(b) ensure that no known dieback 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. Revegetation and rehabilitation – retention of vegetative material and topsoil

The permit holder must:

(a) retain the vegetative material and topsoil removed by clearing authorised under this permit and stockpile the vegetative material and topsoil in an area that has already been cleared;

(b) within 3 months following clearing authorised under this permit, *revegetate* and *rehabilitate* the areas that are no longer required for the purpose for which they were cleared under this Permit by:

(i) re-shaping the surface of the land so that it is consistent with the surrounding five metres of uncleared land;

(ii) ripping the ground on the contour to remove soil compaction;

(iii) laying the vegetative material and topsoil retained under condition 7(a) on the cleared area; and

(iv) undertake *weed* control activities on an 'as needed' basis to reduce weed cover within the cleared areas to no greater than the weed cover within the surrounding five metres of uncleared land.

PART III - RECORD KEEPING AND REPORTING

8. 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	(a) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings; (b) the date that the area was cleared; (c) the size of the area cleared (in hectares); (d) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 5; and

No.	Relevant matter	Specifications
		(e) actions taken to minimise the risk of the introduction and spread of weeds and dieback in accordance with condition 6.
2.	In relation to revegetation and rehabilitation pursuant to condition 7.	(a) the size of the area revegetated and rehabilitated; (b) the dates on which the area revegetation and rehabilitation was undertaken; (c) the boundaries of the area revegetated and rehabilitated (recorded digitally as a shapefile); and (d) weed control activities undertaken within the area revegetated and rehabilitated.

9. Reporting

The permit holder must provide to the *CEO* the records required under condition 8 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 *Environmental Protection Act 1986*.
clearing	has the meaning given under section 3(1) of the EP Act.
fill	means material used to increase the ground level, or to fill a depression.
dieback	means the effect of *Phytophthora* species on native vegetation.
EP Act	*Environmental Protection Act 1986* (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.
rehabilitate / rehabilitated / rehabilitation	means actively managing an area containing native vegetation in order to improve the ecological function of that area.
revegetate / vegetated / revegetation	means the re-establishment of a cover of local provenance native vegetation in an area using methods such as natural regeneration, direct seeding and/or planting, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.

Term	Definition
weeds	means any plant – (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or (b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or (c) not indigenous to the area concerned.

END OF CONDITIONS

Meenu Vitarana
A/MANAGER
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

24 February 2021

Schedule 1

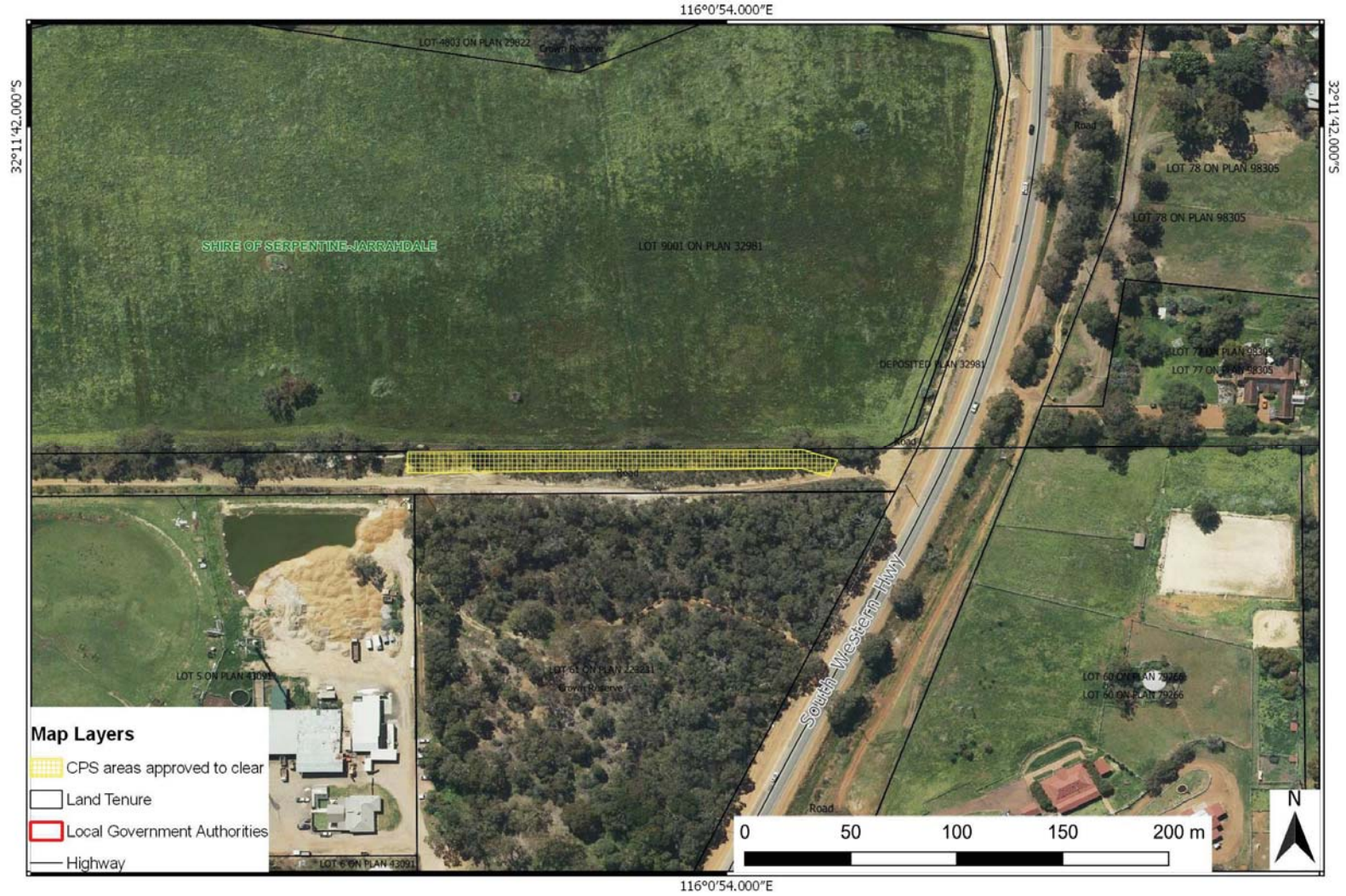

Figure 1: Map of the boundary of the area within which clearing may occur

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 9136/1
Permit type:	Purpose permit
Applicant name:	Whitmore Gardens Pty Ltd
Application received:	3 December 2020
Application area:	0.156 hectares of native vegetation
Purpose of clearing:	Vehicle access to support Western Power supply upgrades
Method of clearing:	Mechanical removal
Property:	Butcher Road reserve (PIN 11470142)
Location (LGA area/s):	Shire of Serpentine Jarrahdale
Localities (suburb/s):	Darling Downs

1.2. Description of clearing activities

The vegetation proposed to be cleared is contained within a single contiguous area, along the northern edge of Butcher Road reserve (see Figure 1, Section 1.5). The proposed clearing area is approximately 10 metres wide and 170 metres long. The clearing is required to support vehicle access to facilitate Western Power supply upgrades to a property to the southwest of the application area, and the applicant has advised that vegetation within the proposed clearing area will be restored after the area is no longer required for vehicle access (Whitmore Gardens Pty Ltd, 2020).

1.3. Decision on application

Decision:	Granted
Decision date:	24 February 2021
Decision area:	0.156 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 F.1), 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 assessment identified that the proposed clearing:

- is not likely to result in loss of habitat significant for fauna species, including threatened black cockatoo species;
- may result in the loss of 0.156 hectares of native vegetation that contains species consistent with the *Corymbia calophylla - Eucalyptus marginata* woodlands on sandy clay soils of the southern Swan Coastal Plain threatened ecological community (TEC), however is unlikely to be a good representation of this TEC, and as such the proposed clearing is not likely to significantly impact upon the conservation status of this TEC;
- is not considered to be significant as a remnant of native vegetation; and
- is not likely to result in impacts to wetlands or water quality.

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 not likely have long-term adverse impacts on fauna, flora, significant remnant vegetation, wetlands or water quality, subject to the permit holder complying with specified permit conditions, and the applicant has suitably demonstrated avoidance and minimisation measures.

The Delegated Officer decided to grant a clearing permit subject to conditions to:

- Avoid, minimise to reduce the impacts and extent of clearing;
- Take hygiene steps to minimise the risk of the introduction and spread of weeds;
- Revegetate the application area to mitigate any potential impact to habitat for the *Corymbia calophylla - Eucalyptus marginata* woodlands on sandy clay soils of the southern Swan Coastal Plain TEC.

1.5. Site map

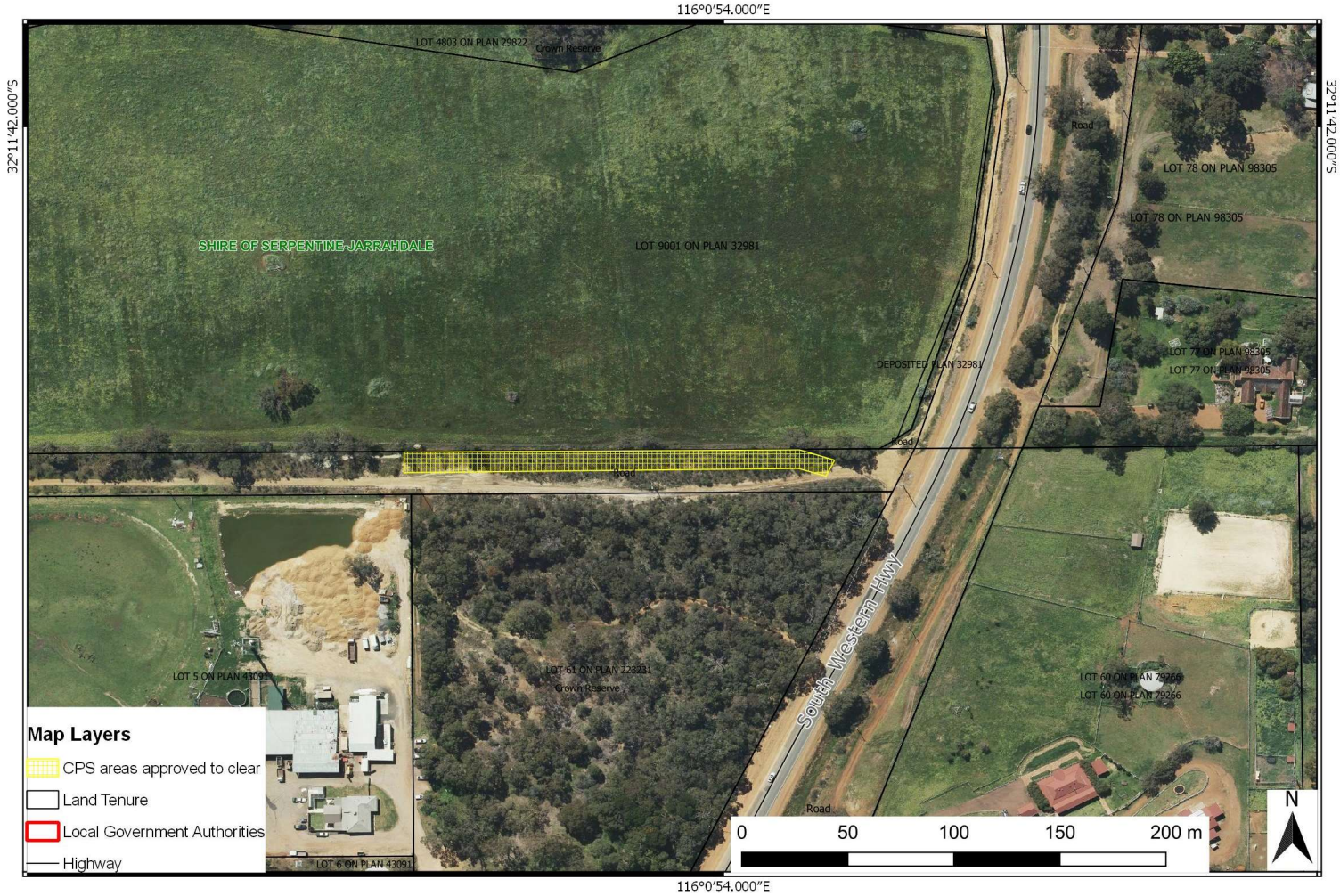

Figure 1 - Map of the application area. The area crosshatched yellow indicates the area authorised to be cleared under the granted clearing permit.

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)

The key guidance documents which inform this assessment are:

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

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

The applicant advised that following the clearing, the proposed clearing area will be returned to a vegetated state, demonstrating that mitigation measures had been considered. 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 risk of impacts of the proposed clearing on fauna, flora, significant remnant vegetation, wetland and water quality required further consideration. The consideration of these risks, 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) and (b)

Assessment: The application area may provide suitable habitat for the following fauna species:

- *Acanthophis antarcticus* (southern death adder) (P3)
- *Calyptorhynchus banksii naso* (forest red-tailed black cockatoo) (T)
- *Calyptorhynchus baudinii* (Baudin's cockatoo) (T)
- *Calyptorhynchus latirostris* (Carnaby's cockatoo) (T)
- *Ctenotus delli* (Dell's skink, Darling Range Southwest Ctenotus) (P4)
- *Falco peregrinus* (Peregrine falcon) (OS)
- *Isoodon fusciventer* (Quenda, southwestern brown bandicoot) (P4)
- *Acanthophis antarcticus* (southern death adder) (P3)

Vegetation mapping conducted within the application area in 2015 (Water Corporation, 2015) indicated that suitable foraging species for forest red-tailed black cockatoo, Baudin's cockatoo and Carnaby's cockatoo (hereafter referred to as "black cockatoo species", including *Coymbia calophylla, Xanthorrhoea preissii* and *Banksia nivea* (Commonwealth of Australia, 2012) were present within the application area at this time. However, as this vegetation has been cleared within the last six years, should any individuals of these species have regrown within the application area, they are unlikely to be of a large enough size to provide significant foraging habitat for black cockatoo species. Furthermore, there are no trees present within the application area of a suitable size to provide breeding habitat (i.e. of a diameter of 50 centimetres or greater at breast height (Commonwealth of Australia, 2012)) or roosting habitat

for black cockatoo species (Whitmore Gardens Pty Ltd, 2021b). The proposed clearing is therefore not considered likely to significantly impact upon black cockatoo species.

While the application area may provide suitable habitat for the priority listed terrestrial species listed above, given the extent of the clearing and presence of better quality vegetation within the adjacent Oscar Bruns Reserve, the proposed clearing is not likely to significantly these species. Due to the large range of habitats utilised by the Peregrine Falcon, the proposed clearing is also unlikely to significantly impact this species.

Conclusion: Based on the above assessment, the proposed clearing is not likely to significantly impact conservation significant fauna species.

Conditions: Nil

3.2.2. Biological values (flora) - Clearing Principles (a) and (d)

Assessment: A survey previously conducted within the application area (Water Corporation, 2015) for a project proposed under clearing permit application CPS 185/7 noted that the vegetation unit mapped within the application area (CcEw) showed affinities with floristic community type 3b, and therefore the threatened ecological community (TEC) "*Corymbia calophylla - Eucalyptus marginata* woodlands on sandy clay soils of the southern Swan Coastal Plain" (hereafter referred to as "FCT3b TEC"), due to the presence of *Corymbia calophylla* as a dominant overstorey species as well as *Banksia nivea, Xanthorrhoea preissii, Mesomelaena pseudostygia, Tetraria octandra* and *Kennedia prostrata.* This TEC is mapped 8 metres south of the application area within Oscar Bruns Reserve. The survey also indicated that the CcEw vegetation type showed affinities with floristic community SCP 3c, and therefore the "*Eucalyptus calophylla – Xanthorrhoea preissii* Woodlands and Shrublands" TEC (hereafter referred to as "FCT3c TEC"), due to *Eucalyptus wandoo* being an occasional dominant and the presence of *Acacia saligna* (Water Corporation, 2015). At the time of the assessment of this project, advice was provided by Department of Parks and Wildlife (DPAW) that although they considered it likely that the CcEw vegetation proposed for clearing represented a degraded area of the FCT3b TEC (although not the FCT3c TEC), Parks and Wildlife had not included this area in the TEC boundary due to its relatively poor condition (DPAW, 2015).

Subsequently to this, the application area was cleared, and the current vegetation represents regrowth vegetation in Degraded condition. As such, it is considered that the current vegetation, while potentially containing some regrowth species consistent with the FCT3b TEC, is unlikely to be a good representation of this TEC, and the proposed clearing is unlikely to have a significant impact upon this TEC. The applicant has committed to revegetating the application area, which will mitigate any potential impacts to this TEC in the long term. Weed and dieback management conditions will be placed on the permit to reduce impacts to TEC vegetation within the Oscar Bruns Reserve.

The application area also contains a suitable soil type for the following conservation significant ecological communities:

- *Banksia attenuata* and/or *Eucalyptus marginata* woodlands of the eastern side of the Swan Coastal Plain (floristic community type 20b as originally described in Gibson et al. (1994)) (Threatened);
- *Banksia* Dominated Woodlands of the Swan Coastal Plain IBRA Region (Priority 3);
- *Corymbia calophylla - Kingia australis* woodlands on heavy soils, Swan Coastal Plain (floristic community type 3a as originally described in Gibson et al. (1994)) (Threatened).

It is also noted that an occurrence of the Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region priority ecological community is mapped approximately 90 metres south of the application area. However, the 2015 survey results (Water Corporation, 2015) and photographs of the vegetation currently present do not indicate that the vegetation present within the application area is consistent with the above mentioned ecological communities.

Conclusion: Based on the above assessment, the proposed clearing may contain species of vegetation consistent with the *Corymbia calophylla - Eucalyptus marginata* woodlands on sandy clay soils of the southern Swan Coastal Plain (floristic community type 3b as originally described in Gibson et al. (1994)) threatened ecological community, however due to the Degraded condition of the vegetation and that it has only regrown from a completely cleared state within the past six years, it is unlikely to be a good representation of this TEC, and therefore the proposed clearing is unlikely to have a significant impact on this TEC.

Conditions: Revegetation conditions and weed and dieback management conditions.

3.2.3. 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, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001). Within constrained areas (areas of urban development in cities and major towns) on the Swan Coastal Plain, the threshold for representation of the pre-clearing extent of a particular native vegetation complex is 10 per cent (EPA, 2008). The application area is classified as a constrained area. The vegetation type mapped within the application area Guildford Complex (Heddle et al, 1980) retains approximately 5 per cent of its pre-European extent mapped within the application area (Government of Western Australia, 2019a). However, although it is considered that the vegetation present within the application area are broadly consistent with the Guildford complex, given that the application area has been previously cleared and is in Degraded condition, it is not considered to be significant remnant of this vegetation type. It is also noted that 37 per cent of the local area contains remnant vegetation, which is consistent with the National Objectives and targets for biodiversity conservation in Australia (Commonwealth of Australia, 2001).

Conclusion: Based on the above assessment, the proposed clearing area is not considered to be significant as a remnant of native vegetation.

Conditions*:* Nil.

3.2.4. Water resources - Clearing Principles (f) and (i)

Assessment: The north-western corner of the application area is mapped within a Multiple Use category palusplain wetland (Armadale Palusplain). The vegetation type mapped within the application area did not include typical riparian vegetation species (Water Corporation, 2015) . Photographs and aerial imagery of the application area indicate the area is unlikely to be currently functioning as a wetland. As such, it is considered that the proposed clearing is unlikely to impact upon the ecological values or water quality within this palusplain wetland.

Conclusion: Based on the above assessment, the proposed clearing is not likely to impact upon the ecological values or water quality within the palusplain wetland mapped within the application area.

Conditions*:* Nil.

3.3. Relevant planning instruments and other matters

The Shire of Serpentine Jarrahdale advised DWER that local government approvals are not required, and that the Shire did not have any objections to the proposed clearing.

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
Applicant provided photographs of application area (Whitmore Gardens Pty Ltd, 2021a)	Photographs were considered in the assessment of vegetation type and condition
Applicant provided locations and diameters of large trees within application area (Whitmore Gardens Pty Ltd, 2021b)	No trees with a diameter at breast height (150cm) of over 50cm were present within the proposed clearing area.

Appendix B. Site characteristics

B.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is part of an approximately 1 hectare isolated patch of naïve vegetation located within the Butcher Road reserve within the intensive land use zone of Western Australia. It is surrounded by a rural property to the north, native vegetation to the west, a vehicle track and native vegetation to the south, and a vehicle track and South Western Highway to the east. The proposed clearing area is part of a small isolated remnant in a highly cleared landscape and is not likely to comprise part of an ecological linkage. Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 37 per cent of the original native vegetation cover.
Ecological linkage	The proposed clearing area is not mapped within 10 km of any mapped ecological linkage and is not considered likely to comprise part of a local ecological linkage.
Conservation areas	The closest DBCA managed conservation area to the proposed clearing area is Wungong Regional Park, located approximately 290 m to the northeast. Oscar Bruns Reserve, a recreational reserve managed by the Shire of Serpentine Jarrahdale containing the *Corymbia calophylla - Eucalyptus marginata* woodlands on sandy clay soils of the southern Swan Coastal Plain threatened ecological community, is approximately 8 m south from the proposed clearing area. Part of Oscar Bruns Reserve is a Bush Forever Area (Site 449).
Vegetation description	Photographs supplied by the applicant indicate the vegetation within the proposed clearing area consists of shrubs including *Acacia* spp. and *Viminaria juncea,* with an understorey of Cyperaceae and grasses, the majority of which appear to be exotic. Representative photos are available in Appendix E. A flora survey encompassing the application area (Water Corporation, 2015) conducted for a previous clearing permit assessment, found vegetation within the survey area to comprise of an open Woodland of *Corymbia calophylla* and *Eucalyptus wandoo* over a Tall Open Shrubland of *Acacia saligna* and *Viminaria juncea* over an Open Shrubland of *Acacia pulchella* and *Xanthorrhoea preissii* over a disturbed understorey dominated by *Eragrostis curvula* and *Watsonia meriana*. In 2015, after this survey was conducted, most of the proposed clearing area was cleared, and vegetation has regrown since this time. While the vegetation previously recorded in the Water Corporation survey (2015) is broadly consistent with the mapped vegetation type, vegetation currently present does not appear to be particularly representative of the mapped vegetation type: • Guildford Complex (complex 32), which is described as a mixture of open forest to tall open forest of *Corymbia calophylla* (Marri) - *Eucalyptus wandoo* (Wandoo) - *Eucalyptus marginata* (Jarrah) and woodland of *Eucalyptus wandoo* (Wandoo) (with rare occurrences of *Eucalyptus lane-poolei* (Salmon White Gum)). Minor

Characteristic	Details
	components include *Eucalyptus rudis* (Flooded Gum) - *Melaleuca rhaphiophylla* (Swamp Paperbark) (Heddle et al, 1980). The mapped vegetation type retains approximately 5 per cent of the original extent (Government of Western Australia, 2019).
Vegetation condition	Photographs supplied by the applicant indicate the vegetation within the proposed clearing area is in Degraded (Keighery, 1994) condition, described as: • 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. The full Keighery (1994) condition rating scale is provided in Appendix D. Representative photos are available in Appendix E.
Climate	Rainfall: 1000 mm Evapotranspiration: 800 mm
Topography	Elevation ranges from 42 m AHD in the western edge of the application area to 45 m AHD in the eastern edge.
Soil description	The soil is mapped as: • Pinjarra P3 Phase (213PjSWP6a), described as very gently undulating alluvial terraces and low rises contiguous with the plain, with deep moderately well to well drained soils associated with major current river systems and larger streams. Acidic red and yellow duplex soils, less common • Forrestfield F2b Phase (213Fo__F2b), described as low slopes and foot slopes up to 5-10% with well drained moderately deep to deep, gravelly acidic yellow duplex soils and rare laterite. A survey performed in 2015 described soils beneath the application area as brown sandy clay (Water Corporation, 2015).

Land degradation risk	• Salinity risk: <3% of map unit has a moderate to high salinity risk or is presently saline
	  ○ 213PjSWP6a: 10-30% of map unit has a high to extreme phosphorus export risk
	  ○ 213Fo__F2b: <3% of map unit has a high to extreme phosphorus export risk
	• Subsurface acidification risk: >70% of map unit has a high subsurface acidification risk or is presently acid
	• Water erosion risk: <3% of map unit has a high to extreme water erosion risk
	• Wind erosion risk:
	  ○ 213PjSWP6a: 3-10% of map unit has a high to extreme wind erosion risk
	  ○ 213Fo__F2b: >70% of map unit has a high to extreme wind erosion risk
	• Flood risk:
	  ○ 213PjSWP6a: 10-30% of the map unit has a moderate to high flood risk
	  ○ 213Fo__F2b: <3% of the map unit has a moderate to high flood risk
	• Waterlogging risk:
	  ○ 213PjSWP6a: 10-30% of map unit has a moderate to very high waterlogging risk
	  ○ 213Fo__F2b: <3% of map unit has a moderate to very high waterlogging risk. (Schoknecht et al., 2001)

Waterbodies	A small portion of the western edge of the application area intersects a Multiple Use category wetland (Armadale Palusplain). The closest mapped watercourse is the Wungong Brook, approximately 250 m north of the application area.

Characteristic	Details
Hydrogeography	The application area is mapped within the Perth Groundwater Area proclaimed under the *Rights in Water and Irrigation Act 1914.* Hydrogeology: Rocks of Low Permeability, Fractured and Weathered Rocks - Local Aquifers (granitoid lithology) Groundwater salinity: 500-1000 mg/L TDS
Flora	There are records of 10 threatened and 28 priority flora species within the local area (10 km). Of these, 11 flora species were recorded within either the same mapped soil and/or vegetation units to the proposed clearing area.
Ecological communities	There are records of 8 threatened and 2 priority ecological communities species within the local area (10 km).
Fauna	There are records of 14 threatened fauna species, 13 priority fauna species, one conservation dependent fauna species, 15 migratory fauna species and one other specially protected fauna species within the local area (10 km).

B.2. 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*					
Swan Coastal Plain	1,501,221.93	579,813.47	38.62	222,916.97	14.85
Vegetation complex					
Heddle vegetation complex 32**	90,513.13	4,607.91	5.09	287.49	0.32
Local area					
10km radius		31,771.54	37.01	-	-

*Government of Western Australia (2019a)

**Government of Western Australia (2019b)

B.3. Flora analysis table

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

Species name	Conservation status	Suitable habitat features?	Suitable vegetation type?	Suitable soil type?	Distance of closest record to application area (km)	Number of known records in local area	Are surveys adequate to identify?
Acacia horridula	3	N	N	Y	5.3	1	N/A
Acacia oncinophylla subsp. patulifolia	4	N	N	Y	1.9	1	N/A
Amanita wadulawitu	2	N	N	Y	5.7	1	N/A
Banksia kippistiana var. paenepeccata	3	N	N	Y	1.9	1	N/A
Calytrix simplex subsp. simplex	1	N	N	Y	5.3	2	N/A
Diuris purdiei	T	N	N	Y	1.2	8	N/A
Drakaea elastica	T	N	Y	N	7.0	3	N/A

Species name	Conservation status	Suitable habitat features?	Suitable vegetation type?	Suitable soil type?	Distance of closest record to application area (km)	Number of known records in local area	Are surveys adequate to identify?
Johnsonia pubescens subsp. cygnorum	2	N	N	Y	1.9	4	N/A
Schoenus pennisetis	3	N	N	Y	3.7	5	N/A
Synaphea sp. Pinjarra Plain (A.S. George 17182)	T	N	similar	Y	7.4	4	N/A
Synaphea sp. Serpentine (G.R. Brand 103)	T	N	Y	Y	1.9	7	N/A

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

B.4. Fauna analysis table

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

Species name	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Number of known records in local area	Most recent record	Are surveys adequate to identify? [Y, N, N/A]
Acanthophis antarcticus (southern death adder)	P3	Y	4.3	28	1982	N/A
Calyptorhynchus banksii naso (forest red-tailed black cockatoo)	VU	Y	0.17	225	2019	N/A
Calyptorhynchus baudinii (Baudin's cockatoo)	EN	Y	1.4	257*	2017	N/A
Calyptorhynchus latirostris (Carnaby's cockatoo)	EN	Y	0.11	1358*	2018	N/A
Ctenotus delli (Dell's skink, Darling Range Southwest Ctenotus)	P4	Y	1.4	2	2010	N/A
Falco peregrinus (Peregrine falcon)	OS	Y	1.9	40	2013	N/A
Isoodon fusciventer (Quenda, southwestern brown bandicoot)	P4	Y	0.11	329	2020	N/A
Acanthophis antarcticus (southern death adder)	P3	Y	4.3	28	1982	N/A

*Note an additional 38 records of *Calyptorhynchus sp. 'white-tailed black cockatoo'* were recorded in the local area, which may comprise either of these species.

B.5. Ecological community analysis table

With consideration for the site characteristics set out above and relevant datasets (see Appendix F.1.), and biological survey information, impacts to the following ecological communities required further consideration.

Community name	Conservation status	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records in local area	Are surveys adequate to identify? [Y, N, N/A]
Banksia attenuata and/or *Eucalyptus marginata* woodlands of the eastern side of the Swan Coastal Plain (floristic community type 20b as originally described in Gibson et al. (1994))	EN	Y	2.9	17	N/A
Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	P3	Y	0.085	438	N/A
Corymbia calophylla - Eucalyptus marginata woodlands on sandy clay soils of the southern Swan Coastal Plain (floristic community type 3b as originally described in Gibson et al. (1994))	EN	Y	0.008	7	N/A
Corymbia calophylla - Kingia australis woodlands on heavy soils, Swan Coastal Plain (floristic community type 3a as originally described in Gibson et al. (1994))	CR	Y	1.2	9	N/A

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 area proposed to be cleared may contain significant assemblages of plants.	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 area proposed to be cleared is not likely to contain significant habitat for conservation significant fauna.	Not likely to 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: The area proposed to be cleared is unlikely to contain habitat for 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 may contain species indicative of threatened ecological communities. These communities are listed as 'Endangered' and 'Critically Endangered' under the BC Act.	May be at variance	Yes: Refer to Section 3.2.2 above.
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: As less than 10 per cent of the vegetation type mapped within the application area remains, the extent of the mapped vegetation type is inconsistent with the national objectives and targets for biodiversity conservation in Australia.	May be at variance	Yes: Refer to Section 3.2.3 above.
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 minimal extent of clearing and that a road is present between the application area and Oscar Bruns Reserve, the proposed clearing is not likely to impact nearest conservation areas.	Not likely to be at variance	No
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: A palusplain wetland is mapped within the application area.	At variance	Yes: Refer to Section 3.2.4 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 susceptible to wind and subsurface acidification. Noting the extent of the application area and the condition of the vegetation, the proposed clearing is not likely to have an appreciable impact on land degradation.	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
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: Although partially mapped within a palusplain wetland, the application area does not currently appear to be functioning as a wetland and given this and the minimal extent of clearing, water quality within the palusplain wetland is not expected to be impacted. Given the minimal extent of the clearing and the distance to the Wungong Brook, the proposed clearing is not likely to impact surface or ground water quality.	Not likely to be at variance	Yes: Refer to Section 3.2.4 above.
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 within the application area, distance to nearby waterbodies and minimal clearing extent indicate the proposed clearing is not likely to contribute to increased incidence or intensity of flooding or waterlogging.	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 Keighery (1994) scale, described below, was used to measure the condition of the vegetation proposed to be cleared.

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.
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 E. Photographs of the vegetation

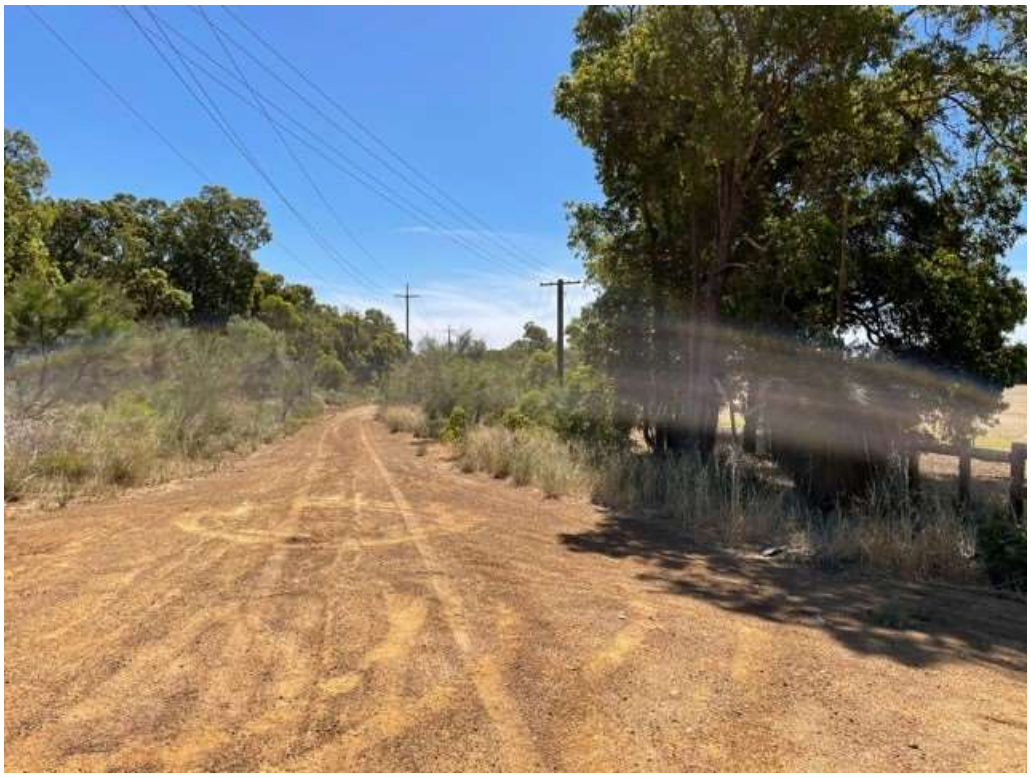

Figure E-1 – Application area (on right side of track) facing west (note large trees in foreground are not included in application area).

Figure E-2 – Application area facing north, shrubs/small trees including *Viminaria juncea* over Cyperaceae and exotic grasses (note large trees in background are not included in application area).

Figure E-3 – Application area facing north, shrubs/small trees including *Acacia* sp. over an understorey of exotic grasses.

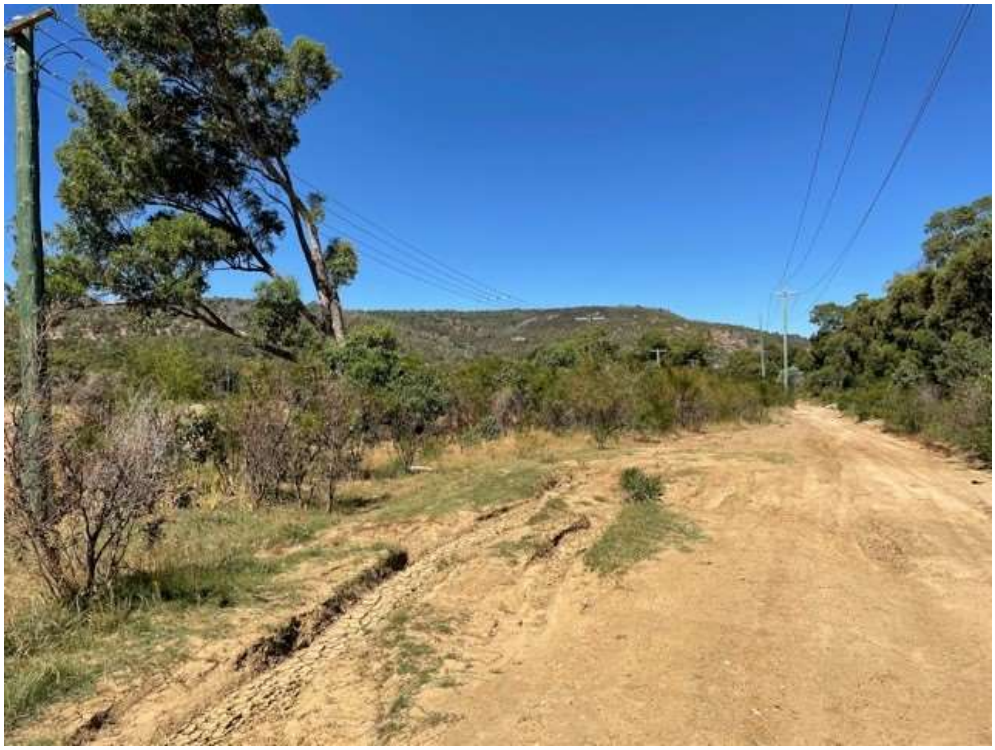

Figure E-4 – Application area (on left side of track) facing east, shrubs/small trees over an understorey of exotic grasses (note large tree is outside application area).

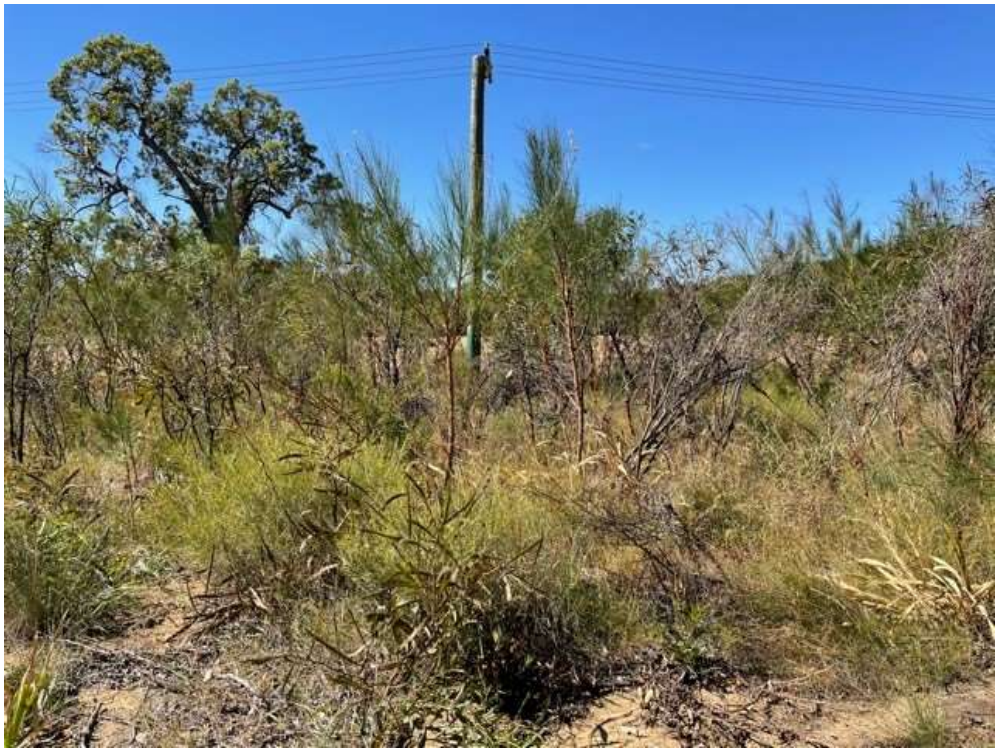

Figure E-5 – Application area facing north, shrubs/small trees including *Viminaria juncea* over an understorey of exotic grasses.

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)
- 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)
- Geomorphic Wetland, Swan Coastal Plain (DBCA-019)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- LiDAR Contours Swan Coastal Plain (1m interval)
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)

- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems

Restricted GIS Databases used:

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

F.2. References

Commonwealth of Australia (2001). *National Objectives and Targets for Biodiversity Conservation 2001-2005*, Canberra.

Department of Biodiversity, Conservation and Attractions (DBCA) (2015*). Regional advice from the Species and Communities Branch for clearing permit application CPS 185/7*, received 16 April 2015. Department of Biodiversity, Conservation and Attractions, Western Australia. (DWER Ref: A1896123).

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 14 January 2020).

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.

Government of Western Australia (2019a). *2018 South West Vegetation Complex Statistics. Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions, Perth, https://catalogue.data.wa.gov.au/dataset/dbca

Government of Western Australia. (2019b). *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

Heddle, E. M., Loneragan, O. W., and Havel, J. J. (1980) *Vegetation Complexes of the Darling System, Western Australia*. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.

Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Mattiske, E.M. and Havel, J.J. (1998) *Vegetation Complexes of the South-west Forest Region of Western Australia.* Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.

Schoknecht, N., Tille, P. and Purdie, B. (2004) *Soil-landscape mapping in South-Western Australia – Overview of Methodology and output*s Resource Management Technical Report No. 280. Department of Agriculture.

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 Serpentine Jarrahdale (2020). *Advice for clearing permit application CPS 9136/1*, received 8 January 2021 (DWER Ref: DWERDT399196).

Western Australian Herbarium (1998-). *FloraBase - the Western Australian Flora*. Department of Biodiversity, Conservation and Attractions, Western Australia. https://florabase.dpaw.wa.gov.au/ (Accessed 21 January 2021)

Whitmore Gardens Pty Ltd (2020). *Clearing permit application CPS 9136/1*, received 3 December 2020 (DWER Ref: A1961441).

Whitmore Gardens Pty Ltd (2021a). *Photographs provided in support of CPS 9136/1*, received 21 January 2021 (DWER Ref: A1976214).

Whitmore Gardens Pty Ltd (2021b). *Additional information provided in support of CPS 9136/1*, received 29 January 2021 (DWER Ref: A161444).