LANDCORP - LATITUDE 32 LOTS 100 AND 101 SAYER ROAD HOPE VALLEY

ENVIRONMENTAL ASSESSMENT REPORT

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CONTENTS

С	ontents		i
Li	st of At	tachments	iii
1	INTI	RODUCTION	1
	1.1	Background	1
	1.2	Purpose of Environmental Assessment Report	1
2	ENV	IRONMENTAL LEGISLATION, POLICY AND GUIDELINES	3
	2.1	State Legislation, Policy and Guidelines	3
	2.1.	1 Hope Valley Wattleup Redevelopment Act 2000	3
	2.1.	2 Hope Valley Wattleup Redevelopment Project Master Plan	3
	2.1.	3 Hope Valley Wattleup Redevelopment Project Biodiversity Strategy Review	3
	2.1.	4 Hope Valley Wattleup Redevelopment Project District Water Management Strategy	4
	2.2	Commonwealth Legislation and Guidelines	4
	2.2.	1 Environment Protection and Biodiversity and Conservation Act 1999	4
	2.2.	2 EPBC Act Significant Impact Guidelines	5
	2.2.	3 EPBC Act Referral Guidelines for Three Threatened Black Cockatoo Species	5
3	EXIS	TING ENVIRONMENT	6
	3.1	Topography	6
	3.2	Geomorphology and Soils	6
	3.2.	1 Acid Sulphate Soils	6
	3.3	Groundwater and Surface Water	6
	3.4	Wetlands	6
	3.5	Vegetation and Flora	6
	3.5.	1 Vegetation Complexes	6
	3.5.	2 Vegetation and Flora Assessment	7
	3.5.	3 Vegetation Units	7
	3.5.	4 Vegetation Condition	7
	3.5.	5 Floristic Community Types and Ecological Communities	8
	3.5.	6 Significant Flora	8
	3.6	Fauna	9
	3.6.	1 Latitude 32 Fauna Assessment	9
	3.6.	2 Conservation Significant Fauna	9
	3.6.	3 Black Cockatoo Habitat Assessment	13

3	8.7	Herit	tage	13
4	Envi	ronm	ental Issues and Management	14
4	1.1	Struc	cture Plan	14
4	.2	Vege	etation and Flora	14
	4.2.	1	Potential Impact	14
4	1.3	Faun	na	14
	4.3.	1	Potential Impact	14
	4.3.	2	Management Measures	15
5	CON	ICLUS	IONS	16
6	REFI	ERENC	CES	17

LIST OF ATTACHMENTS

Tables

Table 1:	Site Area
Table 2:	Vegetation Condition Rating Scale
Table 3:	Conservation Significant Fauna Species that Occur Within the Vicinity of the Site
Table 4:	EPBC Listed Fauna (2019) that Occur within the Vicinity of the Site

Figures

Figure 1:	Site Location
Figure 2:	Structure Plan
Figure 3:	Topography
Figure 4:	Groundwater Flow and Levels
Figure 5:	Vegetation Types and Condition
Figure 6:	Black Cockatoo Foraging Habitat and Significant Trees

Appendices

Appendix 1:	Key Natural Areas and Ecological Linkages Plan
Appendix 2:	OEPA Decision on Assessment
Appendix 3:	Latitude 32 Development Area 3 Structure Plan Approval
Appendix 4:	Lot 100 and 101 Sayer Road Black Cockatoo Habitat Assessment
Appendix 5:	Banksia Woodland TEC Diagnostic Criteria

1 INTRODUCTION

1.1 Background

Lot 100 and 101 Sayer Road, Hope Valley (the site) are located in the Hope Valley-Wattleup Redevelopment Area and have been identified for future industrial development in accordance with the Hope Valley-Wattleup Redevelopment Project Master Plan (2005) (Master Plan). The two lots are each 2.041ha with a total area of 4.082ha (Figure 1).

The Redevelopment Area is divided into six Precincts to facilitate orderly planning of the large 1400ha Area. Lots 100 and 101 Sayer Road are included in Development Area 3.

PGV Environmental undertook an environmental assessment of Development Area 3 as part of the preparation of the Structure Plan. The environmental assessment included Lots 100 and 101 Sayer Road. The Development Area 3 Structure Plan was approved by the WAPC in 2015 (Appendix 3).

Lots 100 and 101 were purchased by LandCorp in 2018 for the purposes of developing the lots as General and Light Industry. To achieve development levels the site will be mined for sand prior to development construction.

Development of the site has State environmental and planning approval through the approval of the Master Plan and DA3 Structure Plan. However, the site contains some habitat for Black Cockatoo species listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Development of the site has not been referred under the EPBC Act for any consideration of the environmental impact.

1.2 Purpose of Environmental Assessment Report

This Environmental Assessment Report (EAR) has been prepared to support the referral of the site under the EPBC Act.

The EAR has been prepared in consideration of the Biodiversity Strategy Review and Key Natural Areas and Ecological Linkages Plan (Appendix 1) and summarises the environmental studies (PGV Environmental, 2019; PGV Environmental (2013); Terrestrial Ecosystems (2013); Bamford (2005); and Weston (2005)) undertaken as part of the Master Plan and structure planning process for Development Area 3. The EAR also includes the results of a recent Black Cockatoo habitat survey undertaken on the site by PGV Environmental (2019).

The EAR addresses the following environmental factors that are specific to the site:

- Surface Water and Groundwater;
- Wetlands;
- Vegetation and Flora;
- Fauna; and
- Heritage.

The identified environmental factors have been validated and refined through:

- Undertaking a desktop assessment;
- Conducting a site visit; and
- Undertaking a Black Cockatoo assessment.

2 ENVIRONMENTAL LEGISLATION, POLICY AND GUIDELINES

The following legislation, policy and guidelines have been considered during this environmental assessment and will guide the required and expected management outcomes from Commonwealth, State and local government agencies.

2.1 State Legislation, Policy and Guidelines

2.1.1 Hope Valley Wattleup Redevelopment Act 2000

The Act identifies the spatial extent of the Redevelopment Area, which encompassed an area of approximately 1400 hectares. The Act requires LandCorp to plan, undertake, promote and coordinate the development and redevelopment of land within the Redevelopment Area. The Act excised the Redevelopment Area from the Metropolitan Region Scheme and from the then Town of Kwinana and the City of Cockburn's respective local planning schemes.

2.1.2 Hope Valley Wattleup Redevelopment Project Master Plan

The Master Plan was prepared in accordance with the Act. The purpose of the Master Plan is to:

- Set out the planning aims and intentions for the Redevelopment Area.
- Set aside land reserved for public purposes.
- Define precincts and development areas within the Redevelopment Area for the purposes defined in the Master Plan.
- Control and guide land use and development.
- Set out procedures for the assessment and determination of planning applications.
- Make provision for the administration and enforcement of the Master Plan.
- Address other matters set out in the First Schedule to the *Town Planning and Development Act 1928*.

The Master Plan was formally assessed by the EPA and granted environmental approval in November 2004 (Ministerial Statement 667). The EPA concluded that it is unlikely that the EPA's objectives would be compromised following the implementation of the Master Plan, provided that the conditions recommended by the EPA were incorporated into the Master Plan.

2.1.3 Hope Valley Wattleup Redevelopment Project Biodiversity Strategy Review

Ministerial Statement No. 667 identified the requirement to prepare a Biodiversity Strategy and Water Management Strategy for the Hope Valley-Wattleup Redevelopment Area (Redevelopment Area) prior to the finalisation of any structure plan. The Biodiversity and Water Management Strategies were adopted by the WAPC in 2008.

A review of the Biodiversity Strategy was undertaken by LandCorp in 2014 and the outcomes were reported in the Biodiversity Strategy Review (2015) and Key Natural Areas and Ecological Linkages Plan (Appendix 1). The Biodiversity Strategy Review (2015) was supported by the Office of the Environmental Protection Authority (OEPA) in 2014 and again in 2015.

The purpose of the Biodiversity Strategy Review was to provide a guiding structure to ensure that environmentally sensitive areas are protected and were possible enhanced through identified plans and management strategies.

The Key Natural Areas and Ecological Linkages Plan identifies the areas proposed for retention in Latitude 32 and the potential location where ecological linkages can be created (Appendix 1).

2.1.4 Hope Valley Wattleup Redevelopment Project District Water Management Strategy

The purpose of the District Water Management Strategy is to guide land use planning and development to meet water management objectives, targets and criteria at the precinct planning and development stages.

2.2 Commonwealth Legislation and Guidelines

2.2.1 Environment Protection and Biodiversity and Conservation Act 1999

The EPBC Act is the Australian Government's central piece of environmental legislation.

The EPBC Act provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places — defined in the Act as matters of national environmental significance.

The nine matters of national environmental significance to which the EPBC Act applies are:

- World heritage sites
- National heritage places
- Wetlands of international importance (often called 'Ramsar' wetlands after the international treaty under which such wetlands are listed)
- Nationally listed threatened species and ecological communities
- Migratory species
- Commonwealth marine areas
- The Great Barrier Reef Marine Park
- Nuclear actions (including uranium mines)
- Water resources in relation to coal seam gas development and large coal mining developments.

Under the EPBC Act, a significant impact is determined by the sensitivity, value and quality of the environment which is to be impacted and the intensity, duration, magnitude and geographic extent of the impacts. If a proposed action is deemed to have a significant impact, this action should be referred to the Minister.

The EPBC Act applies to 'actions' which:

- Have a 'significant impact' on 'matters of national environmental significance';
- Are undertaken by commonwealth government agencies and have a significant impact on the environment anywhere in the world; or

• Are undertaken by any person and have a significant impact on commonwealth land (even if the activity is not actually carried out on the commonwealth land).

2.2.2 EPBC Act Significant Impact Guidelines

The Matters of National Environmental Significance - Significant Impact Guidelines 1.1 Environment *Protection and Biodiversity Conservation Act 1999* (DSEWPaC, 2009) provides a guide for determining the significance of the impact which depends on the sensitivity, value and quality of the environment and the intensity, duration, magnitude and geographic extent of the impacts.

2.2.3 EPBC Act Referral Guidelines for Three Threatened Black Cockatoo Species

Relevant to the site is the EPBC Act *Referral Guidelines for Three Threatened Black Cockatoo Species: Carnaby's cockatoo (endangered) Calyptorhynchus latirostris Baudin's cockatoo (vulnerable) Calyptorhynchus baudinii Forest red-tailed black cockatoo (vulnerable) Calyptorhynchus banksii naso* which provides a guideline for determining if the proposed action is going to require referral under the EPBC Act (DSEWPaC, 2012). The guideline provides information on the types of surveys required to determine if the action will have a significant impact and information on primary threats, impacts and mitigation.

3 EXISTING ENVIRONMENT

3.1 Topography

The topography of the site ranges from 40 mAHD in the north and slopes down to 20m AHD in the south (Figure 3).

3.2 Geomorphology and Soils

The site lies within the Spearwood Dune System and is characterised by one geological unit, Sand (S7). Sand is very light grey at the surface, yellow at depth, fine to medium grained sub-rounded, moderately well sorted of Aeolian origin. Limestone is known to be pale yellowish brown, fine to coarse grained, sub angular to well rounded, quartz trace of feldspar, shell debris, variability lithified, surface kankar of Aeolian of origin (Gozzard, 1983).

3.2.1 Acid Sulphate Soils

The Acid Sulphate Soil Risk Map, Swan Coastal Plain (Landgate, 2016) does not identify any risk of Acid Sulphate Soils and Potential Acid Sulphate Soils occurring on the site.

3.3 Groundwater and Surface Water

The site is within an area that is generally underlain mainly by superficial limestone, marl and cemented sand deposits (the superficial aquifer), which hosts useable quantities of potable to brackish quality water (Arup, 2002).

The Perth Groundwater Atlas identifies depth to groundwater under the site ranging from 25m AHD to 30m AHD. Groundwater flow is westward towards the Indian Ocean.

There are no creeks, drains or lakes within the site.

3.4 Wetlands

There are no wetlands mapped in the *Geomorphic Wetlands of the Swan Coastal Plain* dataset as occurring on the site.

3.5 Vegetation and Flora

3.5.1 Vegetation Complexes

The remnant vegetation on the site is representative of the Karrakatta Complex – Central and South.

Vegetation of the Karrakatta Complex – Central and South is described by Heddle *et al.* (1980) as an open forest of *Eucalyptus gomphocephala* (Tuart) - *Eucalyptus marginata* (Jarrah) – *Corymbia calophylla* (Marri) replacing Tuart progressing eastwards. *Banksia attenuata, B. menziesii, B. grandis* and *Allocasuarina fraseriana* are also common tree species.

Assessments made in 1998 and quoted in Bush Forever (Government of Western Australia, 2000) estimated that 18% of Karrakatta Complex – Central and South of the original extent of this vegetation complex remained uncleared at that time.

3.5.2 Vegetation and Flora Assessment

Native vegetation remains on the southern two-thirds of Lot 101. Lot 100 has been cleared of native vegetation and contains a few individual native and exotic trees around the house and shed at the northern end.

A Level 2 Vegetation and Flora Survey undertaken by Weston (2005) and was in line with the objectives of EPA Guidance Statement No. 51 - *Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia* (EPA 2004a).

The principal purpose was to identify the location of Key Natural Areas to be protected in the wider Latitude 32 including ecological linkages, wetlands and wetland buffers, and other areas considered to be significant due to the representation of ecological communities (including Threatened Ecological Communities), diversity of species, rarity of species, and maintaining ecological processes or systems (Weston, 2005).

PGV Environmental undertook an assessment of the vegetation types and condition in 2013 and 2019.

3.5.3 Vegetation Units

Weston (2005) mapped the vegetation types within the site as follows:

- Eucalyptus gomphocephala/Eucalyptus marginata/Banksia Woodland and Open Woodland; and
- Eucalyptus marginata/Banksia/Allocasuarina fraseriana –Low Woodland.

PGV Environmental (2019) described the vegetation in the southern portion of Lot 101 as follows:

• Jarrah Low Open Woodland with occasional Sheoak (*Allocasuarina fraseriana*) and Banksia trees (*Banksia attenuata, B. menziesii, B. grandis*) over a degraded understorey with very few native species, predominantly *Xanthorrhoea preissii* and *Macrozamia riedlei* with scattered individuals of *Acacia pulchella, Jacksonia sternbergiana* and *Hakea lissocarpha*. The understorey is completely degraded and contains Veldtgrass (*Ehrharta spp.*), Wild Oats (*Avena fatua*) and Lupins (*Lupinus spp.*) and in many places is mown to keep weed growth down.

This description largely reflects that of Weston (2005).

3.5.4 Vegetation Condition

PGV Environmental (2013 and 2019) rated the condition of the vegetation based on the vegetation condition rating scale provided by Keighery in Bush Forever (2000) (Table 2).

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species.
Very Good	Vegetation structure altered, obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbance. Retains basic vegetation structure or ability to regenerate it.

Table 2: Vegetation Condition Rating Scale.

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

Source: Government of Western Australia, 2000.

The vegetation condition on Lot 101 was rated as Degraded to Good in the south and Completely Degraded in the north. The understorey on Lot 101 was largely cleared and consisted of weed species that are regularly mown. Lot 100 was rated as being Completely Degraded.

3.5.5 Floristic Community Types and Ecological Communities

Weston (2005) undertook computer PATN analysis and assessment of flora from three quadrats located in the native vegetation within Latitude 32. The analysis concluded that the vegetation corresponded to FCT 24 (Griffin and Associates, 2005) which is a Priority Ecological Community at State level.

PGV Environmental (2017) undertook an assessment of the vegetation in the wider Latitude 32 to determine whether the vegetation containing Banksia trees could be identified as the Banksia Woodlands of the Swan Coastal Plain Ecological Community listed as a Threatened Ecological Community under the EPBC Act. The site was included in this assessment and identified as Site 8. Site 8 did not meet all of the criteria under Step 1 of the key diagnostic characteristics contained in the approved Conservation Advice for the TEC (Appendix 5). It was therefore determined that Site 8 was not representative of the TEC.

3.5.6 Significant Flora

The EPBC Protected Matters Search Tool identified the following 6 EPBC listed Flora as potentially occurring on the site:

- Slender Andersonia (Andersonia gracilis);
- Grand Spider-orchid (Caladenia huegelii);
- Dwarf Bee-orchid (Diuris micrantha);
- Purdie's Donkey-orchid (*Diuris purdiei*);
- Glossy-leafed Hammer Orchid, (Drakaea elastica); and
- Dwarf Hammer-orchid (Drakaea micrantha).

The habitat (deep sandy soils) on the site is only suited to the Grand Spider Orchid, the remaining species are associated with low lying winter damp soils.

The understorey on Lot 101 has largely been cleared and supports mostly weed species which are regularly mown down. It is therefore highly unlikely that the Grand Spider Orchid would occur on the site.

No species of Declared Rare or Priority Flora were found within the site (Weston 2005). PGV Environmental (2013) reviewed the vegetation condition in Development Area 3 in September 2013 and there were no observations of *Caladenia huegelii* occurring on the site. PGV Environmental (2017) undertook a targeted orchid survey in Spring 2017, to determine if the Grand Spider orchid occurred on neighbouring lots. The species was not recorded during this survey.

3.6 Fauna

3.6.1 Latitude 32 Fauna Assessment

A fauna assessment conducted by Bamford Consulting Ecologists (2005) identified the following fauna may occur within Latitude 32:

- Nine frog species (most species likely to occur mainly around wetlands);
- Forty one reptile species (almost all are associated with remnant native vegetation);
- One hundred and eighteen bird species: includes 40 waterbirds mostly associated with Long Swamp and 78 land birds (of which, 33 are able to utilise modified environments and 45 are reliant on native upland vegetation); and
- Twenty one mammal species: includes six introduced mammals and seven bats.

Bamford (2005) concluded that the fauna species within Latitude 32 would largely be limited to the wetland areas and pockets of remnant vegetation. The remainder of Latitude 32 is completely degraded and does not provide habitat suitable for fauna species other than avifauna and bats.

3.6.2 Conservation Significant Fauna

Bamford (2005) undertook database searches to determine which Declared Rare or Threatened and Priority fauna that may occur within the vicinity of site (Table 3). Table 3 lists the threatened species that were identified in the Protected Matters Search Tool report that may have likelihood to be present on the site. Five terms for the likelihood of occurrence of the species are defined as follows:

- Known The species was or has been observed on the site;
- Likely Medium to high probability that a species uses the site;
- Potential Suitable habitat for a species occurs on the site, but there is insufficient information to categorise the species as likely to occur, or unlikely to occur;
- Unlikely -- A very low to low probability that a species uses the site; and
- No Habitat on site and in the vicinity is unsuitable for the species.

Table 3: Conservation Significant Fauna Species that Occur Within the Vicinity of the Site (Bamford,2005)

Species	State	Commonwealth	Distribution	Presence on Site
<i>Calyptorhynchus banksii naso</i> Forest Red-tailed Black-Cockatoo	Schedule 1	Vulnerable	Endemic to southwest of Western Australia.	Known Observed on the site by Terrestrial Ecosystems.
<i>Calyptorhynchus latirostris</i> (Carnaby's Black Cockatoo)	Schedule 1	Endangered	Endemic to southwest of Western Australia.	Likely This species may forage occasionally on Banksias on the site.
<i>Synemon gratiosa</i> (Graceful Sun-Moth)	Priority 4	No longer listed as of May 2013	Occurs from Kalbarri to Preston Beach	Unlikely This species is unlikely to occur on the site due to the degraded understorey in the remnant vegetation.
<i>Neopasiphe simplicior</i> (native bee)	Schedule 1	Critically Endangered	Recently recorded only around Lake Forrestdale and Armadale Golf Course.	Unlikely Outside of the known range of the species.
<i>Falco peregrinus</i> (Peregrine Falcon)	Schedule 4	Not listed	Cosmopolitan distribution, but is absent from most deserts and the Nullarbor Plain.	Potential May be present and may nest in horizontally aligned Tuart tree hollows.
<i>Throscodectes xiphos</i> (native cricket)	Priority 1	Not listed	Only known from Jandakot.	Unlikely Outside of the known range of the species.
<i>Lerista lineata</i> (Bold Striped Lerista)	Priority 3	Not listed	Found in lower west coast of Western Australia.	Likely May be present on the site, survives in degraded habitats.
<i>Neelaps calonotos</i> (Black-striped Snake)	Priority 3	Not listed	Lower west coast of Western Australia.	Unlikely Species requires large areas of continuous habitat for long-term persistence.
Tyto alba (Masked Owl)	Priority 3	Not listed	Throughout Australia. Almost cosmopolitan.	Unlikely May be present amongst the Tuarts in the west of the DA3 area; may

				roost and nest in
				hollows, however
				appears to be rare
				in region.
			Have been	Likely
Leioproctus			collected from	Species may be
douglasiellus	Priority 3	Not listed	flowers of	present in the
(native bee)	, -		Goodeniaceae	Eucalyptus and
			shrubs.	Banksia woodlands.
			Have been	Likely
Hylaeus alobuliferous			collected from	, Species may be
(native hee)	Priority 3	Not listed	flowers of	present in the
		Not listed	Grevilleg and	Eucalyptus and
			Banksia.	Banksia woodlands.
				Known
				Observed by
			Widely distributed	Terrestrial
			near the	Fcosystems where
Isoodon obesulus			southwest coast	there is suitable
(Quenda)	Priority 4	Not listed	of Western	dense low
				vegetation Present
			Australia.	in both chains of
				adiacent Beeliar
				Regional Park
				No
			Distributed across	Habitats are
Macropus Irma			the southwest of	probably too small
(Brush Wallaby)	Priority 4	Not listed	Western Australia	and fragmented to
			Western Australia.	support the Brush
				Wallahy
			Extends	wanaby.
Falsistrellus			northward almost	
mackenzei			to Perth and	Likely
(Western False	Priority 4	Not listed	eastward to the	May be present in
Pipistrelle)			western margin of	the site.
			the Wheathelt	
Hudromus			Widely distributed	No
chrysogaster			throughout	No suitable babitat
(Bakali)	Priority 4	Not listed		on the site species
(RdKdII)			Australia.	requires wetlands
				No
Egretta alba			Widely distributed	No suitable babitat
(Great Egret)	Not listed	Migratory	throughout	on the site species
			Australia.	roquires wetlende
				requires wetiands

<i>Apus pacificus</i> (Fork- tailed Swift)	Not listed	Migratory	Extremely patchy distribution throughout Australia.	Likely Species may be an infrequent visitor to the site but is largely aerial.
<i>Merops ornatus</i> (Rainbow Bee-eater)	Not listed	Migratory	Regular breeding migrant to Western Australia.	Potenital Species may be an infrequent visitor to the site.

PGV Environmental undertook an EPBC Protected Matters Search Report for the site on the 21 January 2019. The report identified the following nine fauna species as potentially occurring in the vicinity of the site.

Table 4: EPBC Listed Fauna (2019) that may occur within the vicinity of the site.

Species	Commonwealth	Presence on Site		
Birds				
<i>Calidris canutus</i> Red Knot	Endangered	No No suitable habitat on the site, species requires wetlands		
<i>Calidris ferruginea</i> Curlew Sandpiper	Critically Endangered	No No suitable habitat on the site, species requires wetlands		
Calyptorhynchus banksii naso Forest Red-tailed Black- Cockatoo	Vulnerable	Known Observed on the site by Terrestrial Ecosystems.		
Calyptorhynchus latirostris (Carnaby's Black Cockatoo)	Endangered	Likely This species may forage occasionally on Banksias on the site.		
<i>Leipoa ocellata</i> Malleefowl	Vulnerable	No No suitable habitat on the site		
Numenius madagasacariensis Eastern Curlew	Critically Endangered	No No suitable habitat on the site, species requires wetlands		
Rostratula australis Australian Painted Snipe		No No suitable habitat on the site, species requires wetlands		
Mammals				
<i>Dasyurus geoffroii</i> Chuditch	Vulnerable	Unlikely The Chuditch is highly unlikely to occur on the site as the habitat is not suitable and is not connected to other large patches of native		

		vegetation. The understorey has largely been
		cleared and the site has had a semi-rural use for
		many years.
<i>Pseudocheirus occidentalis</i> Western Ringtail Possum	Critically Endangered	No
		No suitable habitat on the site, species requires
		Peppermint Woodland (Agonis flexuosa). This
		type of woodland does not occur on the site.

The only EPBC Act listed endangered fauna known to occur on the site are Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) and Forest Red-tailed Black Cockatoos (*Calyptorhynchus banksii naso*).

The listed Migratory species Rainbow Bee-eater (*Merops ornatus*) and Fork-tailed Swift (*Apus pacificus*) may occasionally visit the site.

The Priority 5 DPaW listed species Quenda (Isoodon obesulus) is known to occur on the site.

3.6.3 Black Cockatoo Habitat Assessment

PGV Environmental (2019) undertook a Black Cockatoo Assessment over the site in January 2019. A total of 1.34ha of foraging habitat and 15 potential breeding trees were identified on the site. (Appendix 6). There were no nesting or roosting sites observed during the Black Cockatoo habitat assessment.

3.7 Heritage

There are no Department of Aboriginal Affairs listed heritage places mapped on the site. An indigenous heritage survey was undertaken as part of the Development Area 3 Local Structure Plan process and confirmed that there are no heritage places within the site (TPG, 2013).

4 Environmental Issues and Management

4.1 Structure Plan

The Development Area 3 Structure Plan will be implemented across the site in accordance with the General and Light Industry zoning under the Master Plan. The site was historically identified as a source for basic raw materials (sand and limestone) and has been recognised in the Draft Perth and Peel Green Growth Plan for 3.5 Million as a high priority source. The site will be mined prior to construction of the industrial development.

4.2 Vegetation and Flora

4.2.1 Potential Impact

All native vegetation from Lot 101 and several individual trees from Lot 100 will need to be cleared to allow for sand extraction and subsequent construction for industrial development. There are no opportunities to retain vegetation on the site due to the topography and requirement to produce flat sites for development.

Clearing the site has State environmental approval as there are no key natural areas as identified in the Biodiversity Strategy Review (PGV Environmental, 2016) identified on the site.

4.3 Fauna

4.3.1 Potential Impact

The conservation EPBC listed Carnaby's Black Cockatoo and Forest Red-tailed Black Cockatoo may forage on the site at certain times. The DBCA priority listed Quenda is known to occur on the site. The remaining fauna is likely to consist of reptiles, avifauna and Brushtail Possums. Clearing of native vegetation will result in loss of habitat for these species.

4.3.2 Management Measures

Black Cockatoos

There are no known breeding trees within the site. Three trees were recorded as containing a potential hollow or spout, however these were recorded from the ground and their suitability as Black Cockatoo breeding habtat was not able to be assessed. Prior to clearing all trees with hollows should be checked by a qualified professional to determine if the hollows are being used by nesting Black Cockatoos. If a breeding pair is identified, the tree and surrounding area (10m²) should be quarantined from any clearing until the chicks have been fledged.

Vegetation clearing should be suspended if Black Cockatoos are on the site and should not recommence until they have moved on.

Quenda

Terrestrial Ecosystems (2013) and PGV Environmental (2019) observed evidence of Quenda on Lot 101. Prior to vegetation clearing Quenda should be relocated to a nearby location as designated by DBCA.

General Fauna

During clearing, fauna handlers should work ahead of the clearing contractor in areas that contain mature Eucalypts and Banksia Woodland to clear reptiles, Brushtail Possums and any remaining Quenda.

Clearing of habitat, where possible, should not be undertaken in spring to minimise disturbance to avifauna breeding.

5 CONCLUSIONS

Lots 100 and 101 Sayer Road are located in Development Area 3 of the Hope Valley-Wattleup Redevelopment Scheme. The lots have State environmental and planning approval to developed for industrial purposes.

Lot 101 contains native vegetation in Good to Degraded condition in the southern two-thirds of the lots. The balance of Lot 101 and all of Lot 100 is rated as Completely Degraded. Lot 100 contains some individual native trees at the northern end.

Due to the topography of the site, and the requirement for flat development lots, the site will be mined for sand prior to development, resulting in the loss of vegetation and fauna habitat. Management Measures are proposed in the Environmental Assessment Report to mitigate the impacts of clearing on the site.

The proposal to clear the native vegetation and trees on the site will be referred to the Commonwealth under the EPBC Act.

6 **REFERENCES**

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