Benger Solar Farm

Native Vegetation Clearing Permit Application

Benger Solar Farm

Native Vegetation Clearing Permit Application

Client: SE Campbell Development Pty Ltd (South Energy)

ABN: 64 628 948 993

Prepared by

AECOM Australia Pty Ltd
Level 3, 181 Adelaide Terrace, Perth WA 6004, GPO Box B59, Perth WA 6849, Australia
T +61 8 6230 5600 www.aecom.com
ABN 20 093 846 925

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Quality Information

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Revision History

Rev	Revision Date	Details	Authorised	
			Name/Position	Signature
A	12-Nov-2019	Draft for Internal Review	Linda Kirchner Associate Director	
B	21-Jan-2020	Draft for Client Review	Linda Kirchner Technical Director	
0	28-Jan-2020	Final	Linda Kirchner Technical Director	

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Executive Summary

South Energy on behalf of SE Campbell Development Pty Ltd (the Applicant) proposes to construct and operate a solar farm (the project) at a site approximately 140 km south of Perth and 30 km north-east of Bunbury, in the Shire of Harvey (the site).

Clearing of 0.96 ha of native vegetation is required for the project. All clearing in Western Australia must be completed under an approved native vegetation clearing permit (NVCP), unless an exemption applied under the *Environmental Protection (Clearing of native Vegetation) Regulations 2004*. As there are no NVCP exemptions that apply to this proposal, a NVCP is required.

This application was prepared to support an application for a NVCP (area permit) for development of the Benger Solar Farm.

Assessment Against the 10 clearing Principles

Assessment against the 10 clearing principles identified that proposed clearing is not likely to be at variance with 9 of the clearing principles. Proposed clearing may be at variance with principle b which relates to the clearing of fauna habitat.

Principle b – Fauna Habitat

The proposal may be at variance with principle b because the proposed clearing includes removal of 0.96 ha of potential Black Cockatoo foraging habitat and up to 55 potential black cockatoo breeding trees. Of the 109 potential breeding trees on the site, 55 are proposed for clearing, but none of these are potential breeding trees with hollows that may be suitable for nesting by black cockatoos. There are seven trees with potentially suitable hollows, but these are being retained. Use of these trees by Black Cockatoos is considered limited due to the poor foraging habitat in the project area and the clearing will not have a significant impact on the species.

1.0 Introduction

South Energy on behalf of SE Campbell Development Pty Ltd (the Applicant) proposes to construct and operate a solar farm (the project) at a site approximately 140 km south of Perth and 30km north-east of Bunbury, in the Shire of Harvey (Figure 1).

This site is located within a 187 hectares (ha) parcel of pastoral land shown as Lot 0 on Diagram 685 (Land ID 3039815) and is currently zoned as Intensive Farming (Figure 2).

Clearing of 0.96 ha of native vegetation is required for the project. All clearing in Western Australia must be completed under an approved native vegetation clearing permit (NVCP), unless an exemption applied under the *Environmental Protection (Clearing of native Vegetation) Regulations 2004*. As there are no NVCP exemptions that apply to this proposal, a NVCP is required.

1.1 Purpose and Scope

This application was prepared to support an application for a NVCP (area permit) for development of the Benger Solar Farm. The applicant seeks approval to clear 0.96 ha of native vegetation.

The removal of native vegetation is necessary to prevent significant impacts to the productivity of the solar farm from inefficient layouts and overshadowing of solar panels.

During the shire pre-application meeting held on the 7 June 2019, the Shire of Harvey suggested that trees to be cleared that contain hollows should be translocated to areas being avoided by Project infrastructure, such as the riparian vegetation of the Wellesley River. The Applicant will translocate cleared trees with hollows should this be required. However, clearing of trees with hollows is currently not anticipated for the Project. Harvestable timber in areas proposed to be cleared will be salvaged, where possible.

1.2 Applicant and Owner Details

The proponent for this vegetation clearing application is:

SE Campbell Development Pty Ltd

L27, 150 Lonsdale St

Melbourne VIC 3000

The land on which this clearing is being proposed is owned by:

Adam Wayne Shine

250 Raymond Road

Roelands WA 6226

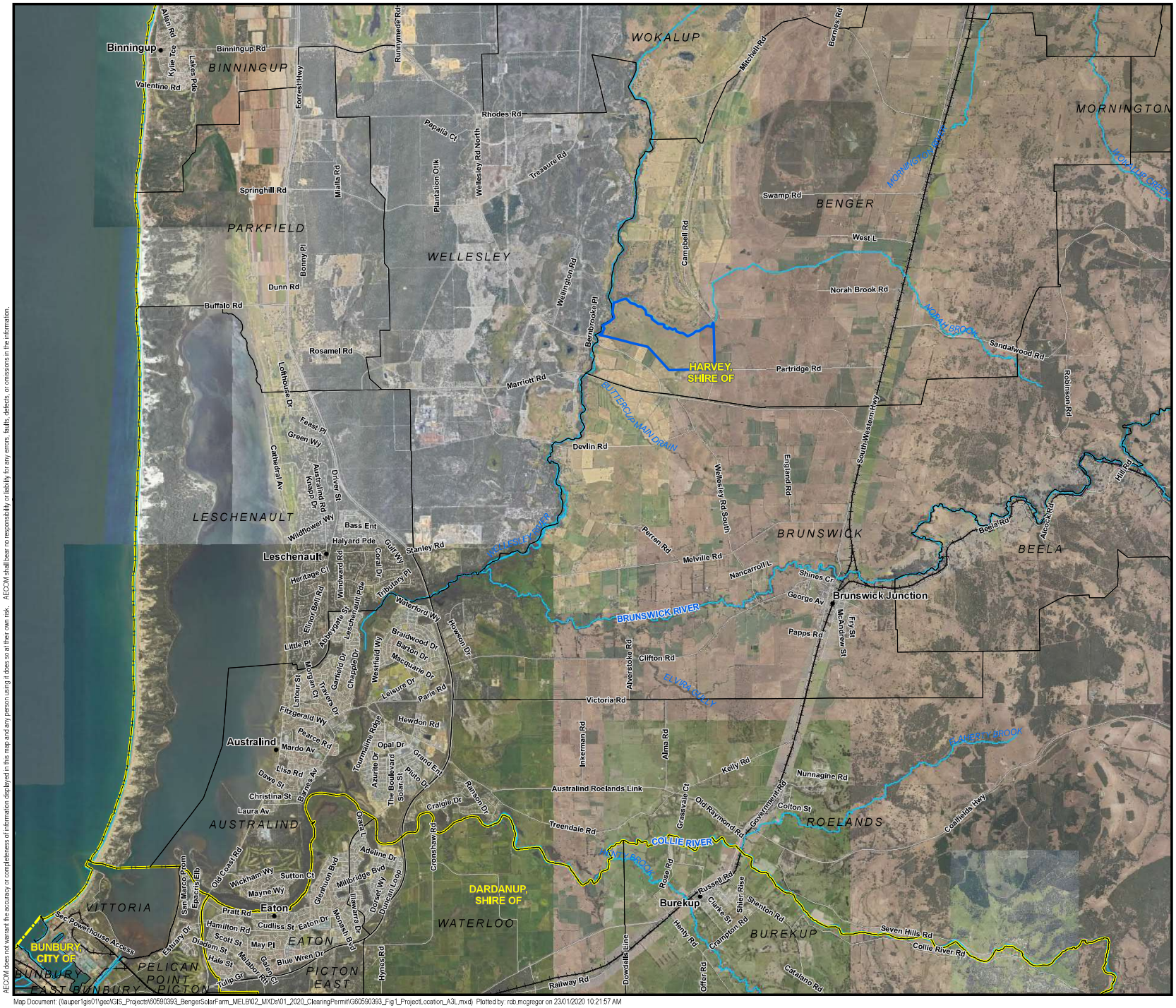
South Energy have been authorised by the land holder to use the land for the purposes of this proposal. Third party authorisation documentation is attached in Appendix A.

1.3 Site Details

Details of the site are outlined in Table 1 and shown on Figure 2.

Table 1 Site details

Property	Description
Land description	Lot 0 on Diagram 685 – Land ID 3039815
Property Area	187 ha
Zoning	Intensive Farming - Tables 25 & 26 of the District Planning Scheme No. 1 (The Scheme).
Owner	Adam Wayne Shine 250 Raymond Road Roelands WA 6226



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DATUM GDA 1994, PROJECTION MGA ZONE 50

0 1 2 3 4
Kilometers

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LEGEND

- Lot Boundary (Lot 0 on Diagram 685 – Land ID 039815)
- Local Government Area Boundary
- Suburb Boundary

Project Location

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NATIVE VEGETATION CLEARING PERMIT APPLICATION

Figure 1

Map Document: (\\aupe1gis01\geo\GIS_Projects\60590393_BengerSolarFarm_MELB\02_MXDs\01_2020_ClearingPermit\G60590393_Fig1_ProjectLocation_A3L.mxd) Plotted by: rob.mcgregor on 23/01/2020 10:21:57 AM

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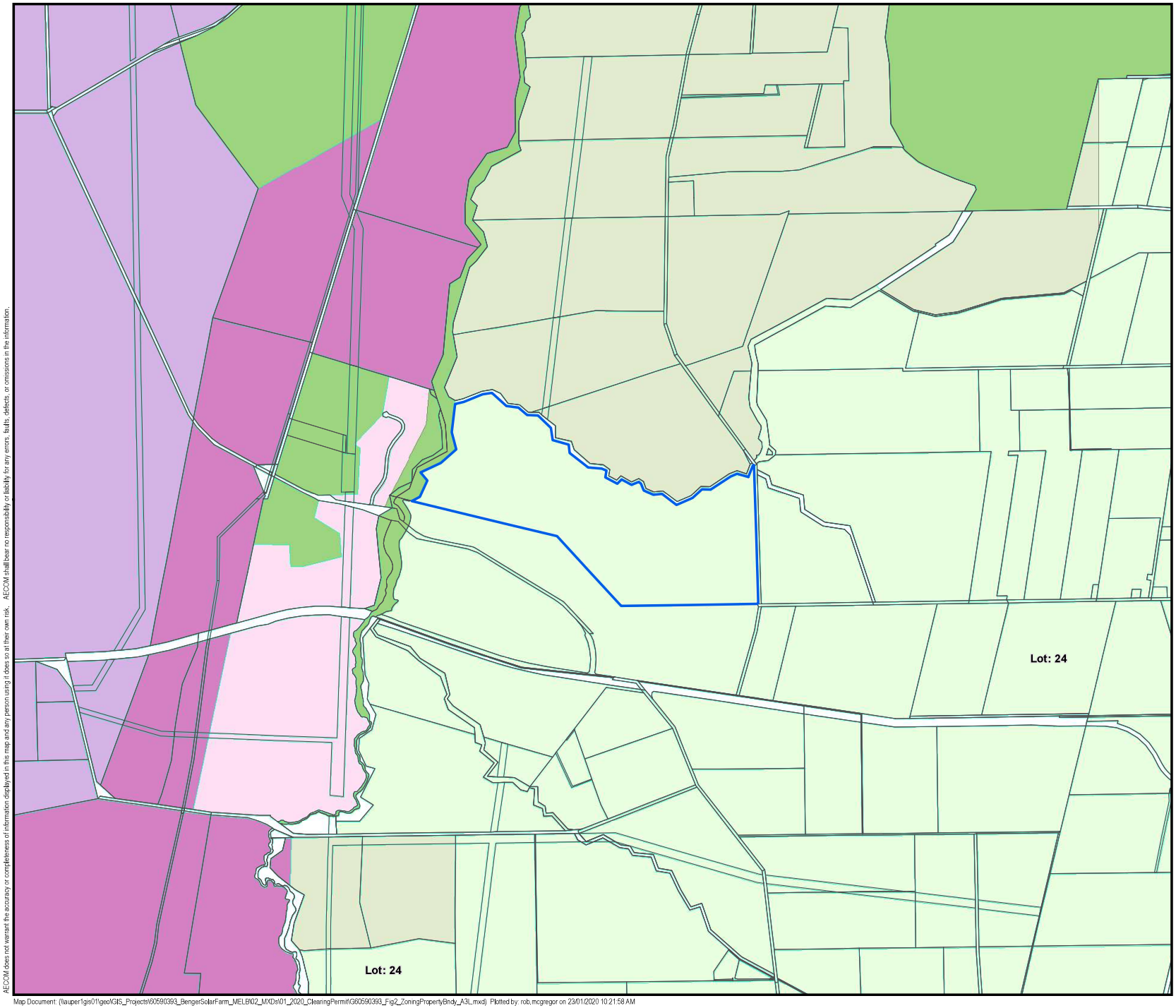

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DATUM GDA 1994, PROJECTION MGA ZONE 50

0 200 400 600 800
Meters

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LEGEND

- Lot Boundary (Lot 0 on Diagram 685 – Land ID 039815)
- Cadastral Boundary

Region Scheme Reserves (PRS)

- Regional Open Space

Local Scheme Zones

- General Farming
- Intensive Farming
- Kemerton Ancillary
- Kemerton Industry Buffer
- Kemerton Strategic Industry

Zoning and Property Boundaries

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Figure
2

Map Document: (\\aupe1gis01\geo\GIS_Projects\60590393_BengerSolarFarm_MELB\02_MXDs\01_2020_ClearingPermit\G60590393_Fig2_ZoningPropertyBndy_A3L.mxd) Plotted by: rob.mcgregor on 23/01/2020 10:21:58 AM

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1.4 Environmental Assessments

Environmental assessment completed to support approvals are summarised in Table 2.

Table 2 Environmental assessments completed for the project

Title	Date	Purpose
Benger Solar Farm Desktop vegetation, Flora and Fauna Assessment & Reconnaissance Survey (AECOM, 2019a)	AECOM, February 2019	Identify potential conservation significant vegetation, flora and fauna at the site.
Benger Solar Farm Preliminary Due Diligence Report (AECOM, 2019b)	AECOM, March 2019	Identify and describe potential environmental constraints on development of the project.
Benger Solar Farm Black Cockatoo Assessment (AECOM, 2019c)	AECOM, July 2019	Assess the significance of the Project Area to black cockatoo species.
Benger Solar Farm Landscape and Visual Impact Assessment (AECOM, 2019d)	AECOM, June 2019	Assess the potential Landscape and Visual Impacts and required mitigation with the development of Benger Solar Farm.
Assessment of Agricultural Suitability (Land ID 039815) (Borstel, 2019)	Borstel, July 2019	Assess the suitability of the site for Intensive Farming as per the criteria specified

1.5 Other Environmental and Planning Approvals

To obtain planning approval for the project, a development application was submitted to the Shire of Harvey in July 2019 (AECOM, 2019e).

The proposal is not expected to require referral under Part IV of the *Environmental Protection Act 1986* (EP Act), but a Native Vegetation clearing permit is required.

The project requires clearing of scattered potential habitat trees for black cockatoo species listed under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act). None of these trees have hollows and the combined area of foraging habitat is less than one hectare. After a pre-referral discussion with the Department of the Environment and Energy (DoEE) on 25 September 2019, the decision was made that the impact on the Black Cockatoo species was not significant and did not require referral under the EPBC Act.

2.0 Existing Environment

2.1 Topography

Relief at the site is low, with elevations ranging from approximately 10 metres Australian Height Datum (mAHD) to 15 mAHD (AECOM, 2019d) with the fall towards the river along the western boundary.

2.2 Geology

Three geology types have been mapped within the site (GSWA, 1982):

- Guildford Formation (Q_{pa}): mainly alluvial sandy clays (Pleistocene) – majority of the site (≈ 97%)
- Alluvium (Q_{ha}): sand and silts (Pleistocene) – bordering the west side of the proposed site location (≈ 2-3%)
- Bassendean Sands (Q_{pb}): sand (Holocene) – possibly bordering the north-east side of the proposed site location (≈ 0-1%).

2.3 Soils

The Project lies in the alluvial plain at foothills of the Darling Scarp. Soil mapping indicates that soils present are predominantly alluvium (Table 3). Six soil systems have been mapped in the Project Area by Purdie et al. (2004) which are:

- Pinjarra P2 Phase - Flat to very gently undulating plain with deep alkaline mottled yellow duplex soils which generally consist of shallow pale sand to sandy loam over clay.
- Pinjarra P10 Phase - Gently undulating to flat terraces adjacent to major rivers, but below the general level of the plain, with deep well drained uniform brownish sands or loams subject to periodic flooding.
- Pinjarra P8 Phase - Broad poorly drained flats and poorly defined stream channels with moderately deep to deep sands over mottled clays; acidic or less commonly alkaline grey and yellow duplex soils to uniform bleached or pale brown sands over clay.
- Pinjarra P7a Phase - Seasonally inundated swamps and depressions with very poorly drained variable acidic mottled yellow and grey duplex soils becoming alkaline with depth.
- Pinjarra P1a Phase - Flat to very gently undulating plain with deep acidic mottled yellow duplex (or coeffective duplex) soils. Shallow pale sand to sandy loam over clay; imperfect to poorly drained and generally not susceptible to salinity.
- Pinjarra P3 Phase - Flat to very gently undulating plain with deep, imperfect to poorly drained acidic gradational yellow or grey-brown earths and mottled yellow duplex soils, with loam to clay loam surface horizons.

The majority of the Project Area lies within the Pinjarra P2 Phase soil system, which is characterised by duplex soils comprising shallow pale sand and loams over clay.

The site is marginal for Intensive Farming practices as outlined by the Scheme. The soil type both in the topsoil and subsoil do not allow for drainage and hence will not sustain horticultural, viticultural or intense pasture production.

2.3.1 Acid Sulfate Soils

Acid Sulfate Soils (ASS) risk at the site has been mapped by the Department of Water and Environmental Regulation (DWER) as moderate to low risk of ASS occurring within 3 m of natural soil surface, but high to moderate risk of ASS beyond 3 m of natural soil surface (DWER, 2016) across most of the site.

The DWER mapping indicates that there is a moderate to high risk of ASS occurring within 3m of the natural soil surface along the western and northern edges of the proposed location indicate a risk category of high to moderate.

2.3.2 Salinity

The site lies within a broad area mapped as having a low risk of salinity (DAFWA, 2014).

Soil analysis was undertaken at the project site (Borstel, 2019) as part of a detailed soil analysis. Measured high Conductivity in the south western section of the site, indicates that this low-lying region has encroaching salt problems.

Table 3 Soil salinity from soil analysis

Location Identifier	Conductivity (dS/m)	Comment
Site Benger a (0-10m)	0.72	Low lying sodic loam soil covers the south western section of the site and has high conductivity.
Site Benger b (top) (0-10m)	0.108	Sloping loamy clay becoming clay at depth soil type, covering the north and central region of the paddock
Site Benger b (sub) (0-10m)	0.0501	
Site Benger c (top) (0-10m)	0.131	Higher region of the site. Clay topsoil moving down to a heavy slay in the subsoil.
Site Benger c (sub) (0-10m)	0.061	
Site Benger d (top) (0-10m)	0.110	Large portion of the east and central regions of the site.
Site Benger d (sub) (0-10m)	0.042	
Site Benger e (0-10m)	0.134	Eastern section of the site. Heading towards becoming salty.

2.4 Water

2.4.1 Groundwater

The Department of Water and Environmental Regulation – Perth Groundwater Map does not have any data available of the proposed location. It should be noted that the groundwater table may lie close to ground level over parts of the site due to the close proximity of the Wellesley River and Mornington Creek bordering the site.

The Superficial Aquifer that underlies the Project Area is predominantly clay and sand (DoW, 2009). The aquifer may be hydraulically connected to the underlying Leederville Aquifer, and discharges locally to watercourses such as the Wellesley River and wetlands. Groundwater to the east of the Wellesley River is generally brackish with TDS concentrations >1500 mg/L. In some areas throughout the broader region, abstraction has caused a rise in salinity (>2000 mg/L TDS) and acidity.

The DWER Water Information Reporting database indicates that groundwater levels immediately northeast of the Project Area have been reported at 4.3 m to 5.5 m (DWER, 2018).

To facilitate effective groundwater resource management, Western Australia is divided into groundwater areas. DWER uses these groundwater areas as an administrative tool for managing abstraction and licensing of groundwater resources.

The Project is located on the southeast boundary of the South West Coastal Groundwater Area proclaimed under the Rights in Water and Irrigation Act 1914 (RIWI Act). This groundwater area intersects the northern portion of the Project Area. The Project Area is on the boundary between the Kemerton Industrial Park North groundwater subarea and the Bunbury-Karri groundwater sub-area.

2.4.2 Surface Water

The main surface water features within the Project Area are the Wellesley River and Mornington Creek. Wellesley River runs along the northern boundary and Mornington Creek runs along the western boundary of the Project Area.

The Project Area consists of a poorly drained flat landscape. Surface water runoff generally flows to the west and north towards the Wellesley River and Mornington Creek, respectively. Review of Aerial imagery indicates that like other pastures in the Wellesley region, the Project Area contains man-made irrigation channels that remove excess runoff and lower the water table. Review of available topographic data indicates that the watershed for the Wellesley River and its tributaries (including Mornington Creek) at this location is approximately 20,000 ha.

No Public Drinking Water Source Areas intersect the Project Area. Surface water allocation areas are used by DWER as an administrative tool to manage the availability and use of surface water resources. The Project lies within the Collie Surface Water Allocation Area and the Wellesley River Surface Water Allocation Sub-area.

2.4.3 Wetlands

Much of the site is mapped as a palusplain (UFI 15,225), an extended area of alluvial plain that becomes seasonally waterlogged during periods of high rainfall. The remainder of the wetlands mapped in the Project area are small damplands interspersed throughout the palusplain. These wetlands are likely to correspond with slight depressions in an otherwise flat landscape. Classification as Multiple Use means Department of Biodiversity, Conservation and Attractions (DBCA) consider these wetlands to have limited conservation value, and they can be modified and integrated into other land uses. Accordingly, most of these areas have now been cleared and used for agriculture.

No Conservation or Resource Enhancement Wetlands occur within the Project area.

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DATUM GDA 1994, PROJECTION MGA ZONE xx

0 190 380 570 760

metres

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LEGEND

- Lot Boundary (Lot 0 on Diagram 685 – Land ID 039815)
- Clearing Permit Area (0.96 Ha)
- Drainage
- Road

Management Category (DBCA)

- Conservation
- Resource Enhancement
- Multiple Use
- Not Assessed

Data sources: GWSCP - Department of Biodiversity, Conservation and Attractions(DBCA);ESA - Department of Water and Environmental Regulation (DWER);

Base Data: Geoscience Australia (GA); (c) Based on information provided by and with the permission of the Western Australian Land Information Authority trading as Landgate (2010).

Wetland Mapping

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Figure 3

Map Document: \\auper1gis01\geo\GIS_Projects\60590393_BengerSolarFarm_MELB\02_MXDs\01_2020_ClearingPermit\G60590393_Fig3_Wetlands_A4P.mxd (rob.mcgregor)

A4 size

2.5 Vegetation, Flora and Fauna

Vegetation, flora and fauna at the site were surveyed by AECOM (Appendix B). The Ecology Assessment (AECOM, 2019a) included:

- a desktop review to identify potential for Threatened or Priority flora, fauna or ecological communities to occur within, or near the proposed site.
- a flora, vegetation and fauna reconnaissance survey conducted in December 2018 to verify desktop review results, note evidence of conservation significant biota and investigate the presence (or likely presence) of specific Commonwealth and State-listed threatened flora and fauna species and communities.
- a detailed flora and vegetation assessment and targeted Black Cockatoo assessment conducted in May 2019.

2.5.1 Vegetation

2.5.1.1 Vegetation Associations

Beard et al (2013) mapped three pre-European vegetation associations across the Project Area (Table 4). Most of the pre-European vegetation at the site has been cleared for agriculture and the vegetation aligns mostly with pre-European vegetation association 968 of which there is 32% remaining.

Examination of aerial photography from the Project Area indicates that the majority of the site has been cleared for agriculture prior to 1996.

Table 4 Pre-European Vegetation Associations (Beard et al, 2013)

Vegetation Association	Description
968	Jarrah (*Eucalyptus marginata*), marri (*Corymbia calophylla*) and wandoo (E. wandoo) woodland.
1000	Woodland, Low woodland, Low forest or Woodland.
1182	Jarrah (*Eucalyptus marginata),* marri (*Corymbia calophylla*) and wandoo (*E. wandoo*) woodland.

The significance and value of the native vegetation within the Clearing Permit Application Area was assessed using the 2018 Statewide Vegetation Statistics (Government of Western Australia, 2018). Table 5 shows the current extent remaining of pre-European vegetation remaining in the region.

Table 5 Vegetation Representation

Vegetation Association	District	Pre-European Extent (ha)	Current Extent (ha)	Percentage Remaining (%)	% Current Extent in DBCA Managed Land (proportion of Pre-European Extent)
968	Statewide	296,877.84	95,048.82	32.02	18.45
	Shire of Harvey	23,465.19	1,250.92	5.37	1.98
1000	Statewide	99,835.86	27,768.84	27.81	5.19
	Shire of Harvey	20,121.61	8,209.83	40.80	12.40
1182	Statewide	23,437.06	6,133.59	26.17	14.48
	Shire of Harvey	7,311.54	598.45	8.19	0.56

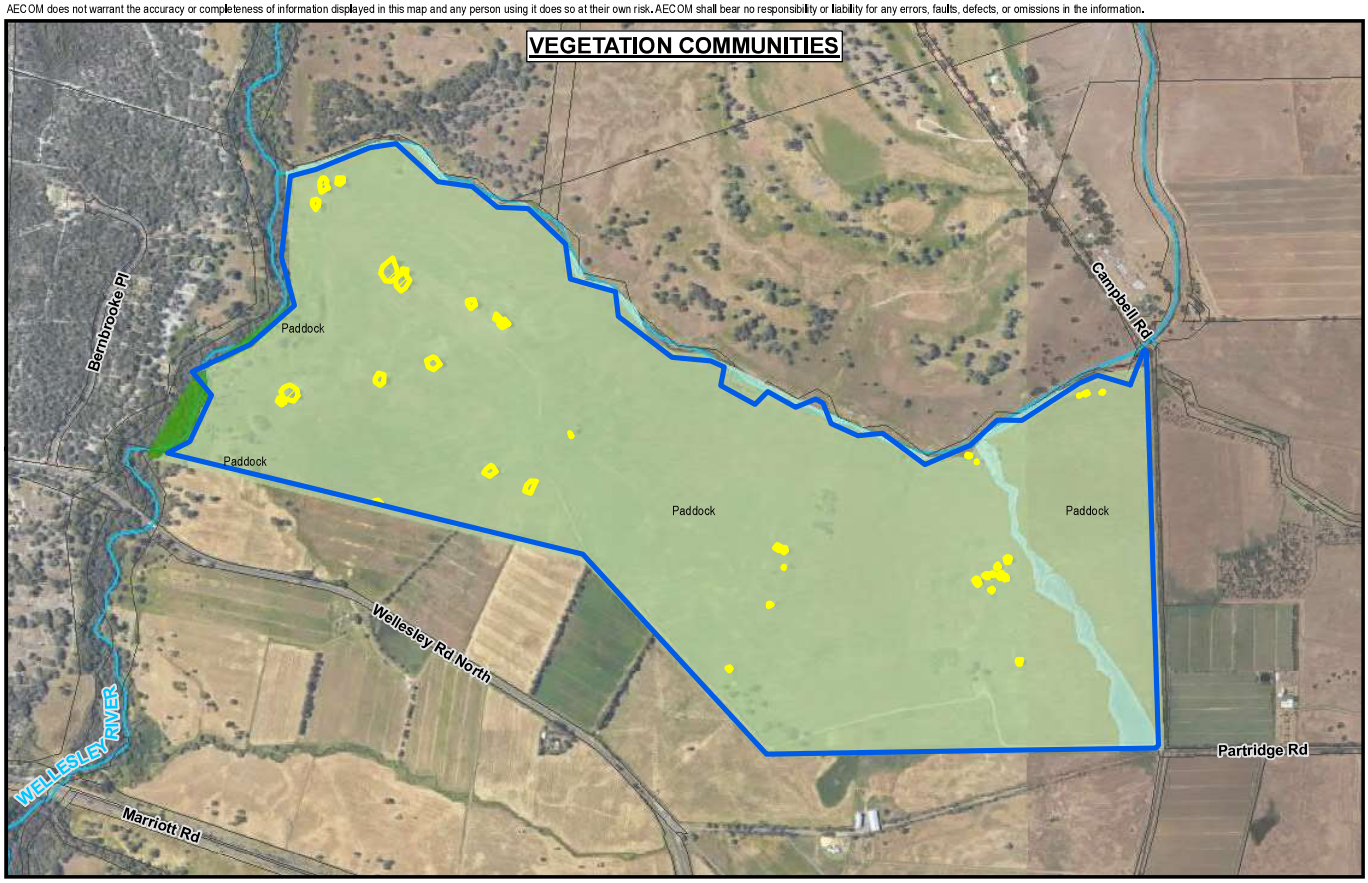
2.5.1.2 Vegetation Communities

AECOM (2019a) mapped one vegetation community at the site (Table 6 and Figure 4). This vegetation community covers an area of 1.76 ha. The remainder of the site comprises 185.28 ha of cleared paddock. None of the Melaleuca vegetation will be cleared.

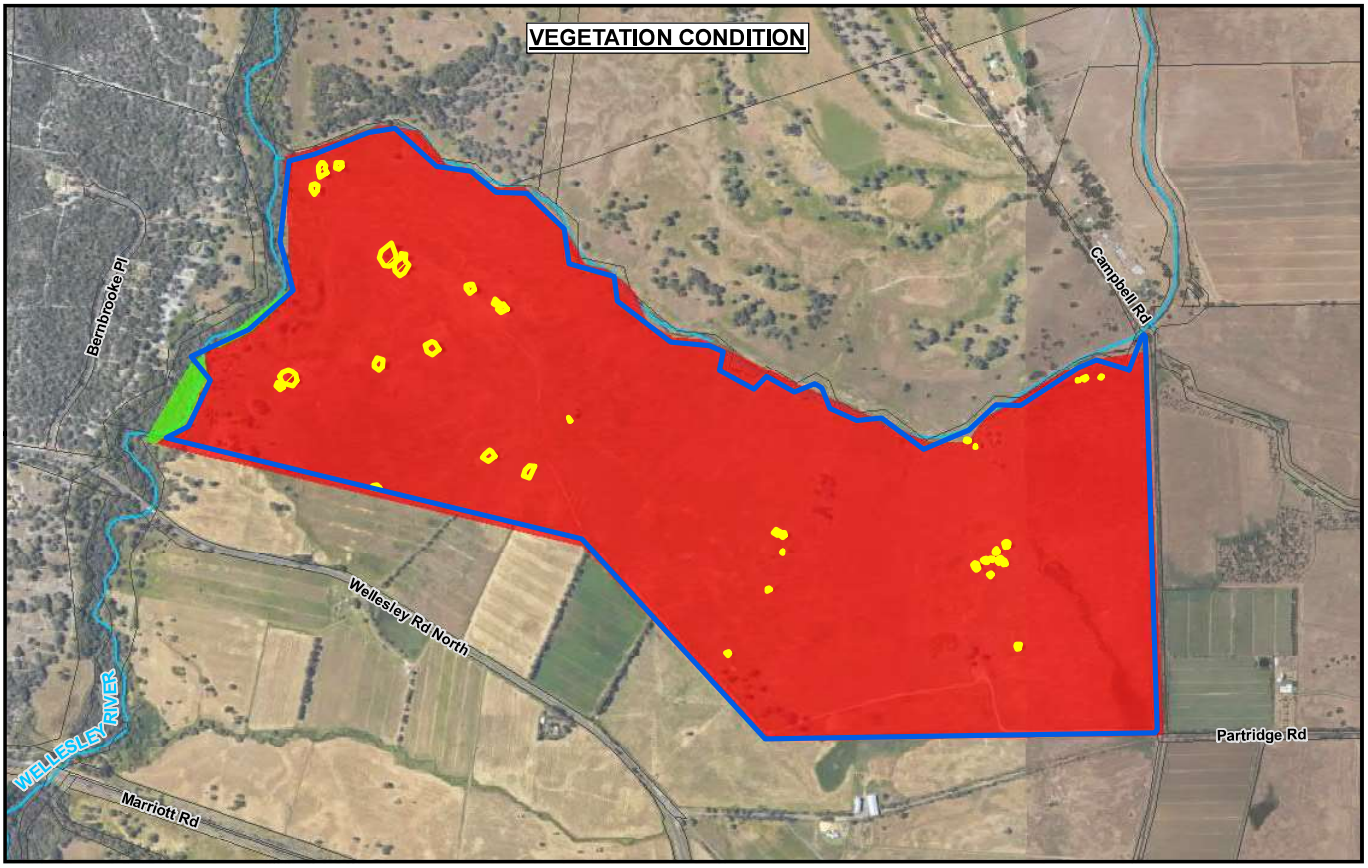
Table 6 Vegetation communities mapped at the site

Code	Description	Details
MrEr	*Melaleuca rhaphiophylla* and *Eucalyptus rudis* over weedy grasses and herbs.	Survey Area: 1.76 ha Condition: The understorey is devoid of native species caused by weed displacement and increasing competition for resources. Remnant native vegetation is considered in 'Good' condition in accordance with Keighery et al. (1994).
We	Cleared wetland comprising remnant native trees over weeds.	Survey Area: 185 ha Condition: Completely Degraded in accordance with Keighery (1994).
Pa	Cleared paddock comprising remnant native trees over weeds.	

VEGETATION COMMUNITIES



VEGETATION CONDITION



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DATUM GDA 1994, PROJECTION MGA ZONE 50

0 150 300 450 600 metres

1:17,500 when printed at A4

LEGEND

- Lot Boundary (Lot 0 on Diagram 685 – Land ID 039815)
- Clearing Permit Area (0.96 Ha)
- Cadastral Boundary
- Drainage

Vegetation Condition
- Completely Degraded
- Degraded
- Cleared

Vegetation Communities
- Riparian Vegetation
- Wetland
- Paddock: Cleared paddock comprising common pasture weeds
- TRA_ROADHIERMRWA

Vegetation Communities and Condition

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Figure **4**

Map Document: \\auper1gis01\geo\GIS_Projects\60590393_BengerSolarFarm_MELB\02_MXDs\01_2020_ClearingPermit\G60590393_Fig4_VegCommunitiesCondition_A4P.mxd (rob.mcgregor)

A4 size

2.5.1.3 Vegetation Condition

The native vegetation within the Project Area is restricted to the southwest corner, represented as 'Riparian Vegetation' on Figure 4 and shown in Plate 1. Riparian vegetation extends for 1.76 ha. The vegetation comprises *Melaleuca rhaphiophylla* and *Eucalyptus rudis* over weedy grasses and herbs.

The understorey is devoid of native species caused by weed displacement and increasing competition for resources. The remnant native vegetation is considered in 'Good' condition, with the remaining Project Area considered 'Completely Degraded' (185.28 ha) in accordance with the Keighery (1994) vegetation condition scale.

Despite the poor condition of the remnant vegetation, it is still considered locally and regionally significant as it represents riparian vegetation. Riparian vegetation is essential for regulating and maintaining important functions and attributes of the freshwater system.

The remainder of the Project Area comprises 'Wetland' and 'Paddock'. The Wetland areas are recognised as entirely or partially inundated during winter and spring months. It includes a man-made drain that was inundated at the time of the survey, and waterlogged areas that had some scattered rushes (*Juncus sp.*).

The 'Paddock' consisted of remnant native trees over weeds.

One plant listed as a Declared Pest under the BAM Act was recorded. The river banks and riparian vegetation community was infested with **Zantedeschia aethiopica* Arum Lily which is classified under s22(2) and considered Exempt under the BAM Act. This listing does not include any management requirements.

Table 7 Vegetation condition mapped in the site

Condition Scale	Area (ha)
Good (Riparian Vegetation)	1.76
Completely Degraded (Paddock)	185.28

2.5.1.4 Threatened and Priority Ecological Communities

Desktop searches identified three Threatened Ecological Communities (TEC). These TEC's are also listed as Priority Ecological Community (PEC) with potential to occur in the site. These include:

- Banksia Woodlands of the Swan Coastal Plain - listed as an Endangered TEC under the EPBC Act
- Claypans of the Swan Coastal Plain - listed as a Critically Endangered TEC under the EPBC Act and a Priority 1 PEC by the DBCA
- Subtropical and Temperate Coastal Saltmarsh – listed as a Vulnerable TEC under the EPBC Act and a Priority 4 PEC by the DBCA

A review of habitat and spatial data identified one TEC that is 'known to occur' and two TEC's 'may occur'. The Banksia Woodlands of the Swan Coastal Plain (EPBC Endangered, DBCA P3) is known to occur from remnant native vegetation adjacent to the Project Area.

The mapping of the Banksia Woodland TEC is based on the Commonwealth's 'likely to occur' areas and represents the mapped broad-scale vegetation units most likely to contain the described ecological community. Therefore, the mapping represents the indicative present distribution of the Banksia Woodlands ecological community. Ground-truthing is required to verify if a particular site meets the required diagnostic characteristics and minimum condition thresholds and size to be the described TEC.

No Threatened or Priority ecological communities were recorded during the field survey. The Banksia Woodlands TEC was verified as not being present within the Project Area. The occurrence of this TEC is restricted to the west side of the creek where aerial imagery shows Banksia Woodlands to occur.

2.5.2 Flora

Desktop searches of the Department of the Environment and Energy (DoEE) Protected Matters Search Tool (PMST) and the Western Australian Museum and Department of Biodiversity Conservation Attractions (DBCA) NatureMap identified 28 conservation significant flora species with potential to occur in the Project Area. These include, 15 species are listed as Priority Flora. The remaining 13 species are listed under the WC Act, of which 11 are also listed as Threatened under the EPBC Act.

A review of habitat and spatial data identified that 21 of the species are considered 'likely to occur' or 'may occur' within the Project Area. This includes 9 Priority Flora and 12 EPBC Act and WC Act listed species. The likelihood of occurrence of flora species was determined by assessing the likely presence of suitable habitat in the Project Area and reviewing the recent records of the species in the area. Details of species considered likely to occur within the Project Area are below in Table 8.

No comprehensive flora species list was developed as part of the reconnaissance survey (20 December 2018). Only broad-scale attributes were recorded to inform planning and identify potential environmentally significant values.

Table 8 Threatened and Priority flora species with potential to occur at the site

Taxon	State BC Act / DBCA	Federal EPBC Act	Habitat	Likelihood
Acacia flagelliformis	P4		Sandy soils. Winter-wet areas.	Likely to occur
Acacia semitrullata	P4		White/grey sand, sometimes over laterite, clay. Sandplains, swampy areas.	Likely to occur
Andersonia gracilis	VU	EN	White/grey sand, sandy clay, gravelly loam. Winter-wet areas, near swamps.	May occur
Austrostipa bronwenae	EN		Calcareous, winter-wet grey-brown sandy-loam or dark brown loam over clay.	Likely to occur
Boronia juncea subsp. juncea	P1		Sand. Low scrub.	Unlikely to occur
Caladenia huegelii	CR	EN	Grey or brown sand, clay loam.	May occur
Caladenia procera	CR	CR	Alluvial loamy flats, jarrah/marri/peppermint woodland, dense heath, sedges.	Likely to occur
Caladenia speciosa	P4		White, grey or black sand.	Unlikely to occur
Carex tereticaulis	P3		Black peaty sand.	Unlikely to occur
Chamaescilla gibsonii	P3		Winter-wet flats, shallow water-filled claypans.	Likely to occur
Cyathochaeta teretifolia	P3		Grey sand, sandy clay. Swamps, creek edges.	Likely to occur
Dillwynia dillwynioides	P3		Sandy soils. Winter-wet depressions.	Likely to occur
Diuris drummondii	VU	VU	Low-lying depressions, swamps.	May occur

Taxon	State BC Act / DBCA	Federal EPBC Act	Habitat	Likelihood
Diuris micrantha	VU	VU	Winter-wet swamps, in shallow water.	May occur
Diuris purdiei	EN	EN	Grey-black sand, moist. Winter-wet swamps.	May occur
Drakaea elastica	CR	EN	White or grey sand. Low-lying situations adjoining winter-wet swamps.	May occur
Drakaea micrantha	EN	VU	White-grey sand.	May occur
Eleocharis keigheryi	VU	VU	Clay, sandy loam. Emergent in freshwater: creeks, claypans.	May occur
Eucalyptus rudis subsp. Cratyantha	P4		Loam. Flats, hillsides.	May occur
Lasiopetalum membranaceum	P3		Sand over limestone.	Unlikely to occur
Pterostylis frenchii	P2		Calcareous sand with limestone, laterite. Flatlands and gentle slopes.	Unlikely to occur
Puccinellia vassica	P1		Saline soils. On the outer margins of coastal saltmarshes.	Unlikely to occur
Pultenaea skinneri	P4		Sandy or clayey soils. Winter-wet depressions.	Likely to occur
Synaphea sp. Fairbridge Farm (D. Papenfus 696)	CR	CR	Sandy with lateritic pebbles. Near winter-wet flats, in low woodland with weedy grasses.	Unlikely to occur
Synaphea sp. Serpentine (G.R. Brand 103)	CR		Grey-brown sandy loams or clay in seasonally wet areas.	May occur
Synaphea stenoloba	CR	EN	Sandy or sandy clay soils. Winter-wet flats, granite.	May occur
Tripterococcus sp. Brachylobus (A.S. George 14234)	P4		Winter-wet areas in shrubland or heath.	Likely to occur
Verticordia attenuata	P3		White or grey sand. Winter-wet depressions.	Likely to occur

2.5.3 Fauna

The desktop fauna assessment identified 26 conservation significant fauna species that could potentially occur within the Project Area. The likelihood of occurrence of fauna species was determined by assessing the likely presence of suitable habitat in the Project Area and reviewing the distribution of the species. This assessment determined that:

- two species are 'likely to occur'
- 12 species 'may occur'
- 12 species are 'unlikely to occur'.

The 14 species considered as 'likely to occur' or 'may occur' in the Project Area include three mammal, eight bird, two fish and one invertebrate species. Refer to Table 9 for further information on these 14 species. The conservation significant categories as defined by DBCA, the WC Act and the EPBC Act are used in Table 9.

Twenty vertebrate fauna species were recorded during the field survey. This comprised 16 bird and four mammal species. Of the 20 fauna species observed, three species were of conservation significance. These comprised Carnaby's Cockatoo (*Calyptorhynchus latirostris*) listed as Endangered under the EPBC Act and WC Act, and the Tree Martin (*Petrochelidon nigricans*) and Magpie Lark (*Grallina cyanoleuca*) which are both listed as Marine under the EPBC Act. Species listed as Marine under the EPBC Act are only considered of conservation significance when recorded within Commonwealth Land. These two species will not be discussed further as the Project Area does not contain Commonwealth land.

Table 9 Conservation significant fauna species with potential to use the site

Scientific Name	Common Name	State BC Act / DBCA	Federal EPBC Act
Apus pacificus	Fork-tailed Swift	IA	Migratory
Botaurus poiciloptilus	Australasian Bittern	EN	E
Calidris acuminata	Sharp-tailed Sandpiper	IA	Migratory
Calyptorhynchus banksii naso	Forest Red-tailed Black-Cockatoo	VU	V
Calyptorhynchus baudinii	Baudin's Cockatoo	EN	E
Calyptorhynchus latirostris	Carnaby's Cockatoo	EN	E
Dasyurus geoffroii	Chuditch	VU	V
Galaxiella nigrostriata	Black-striped Dwarf Galaxias	EN	E
Geotria australis	Pouched Lamprey	P3	-
Isoodon fusciventer	Quenda	P4	-
Ixobrychus dubius	Australian Little Bittern	P4	-
Plegadis falcinellus	Glossy Ibis	IA	Migratory
Pseudocheirus occidentalis	Western Ringtail Possum	CR	V
Westralunio carteri	Carter's Freshwater Mussel	VU	V

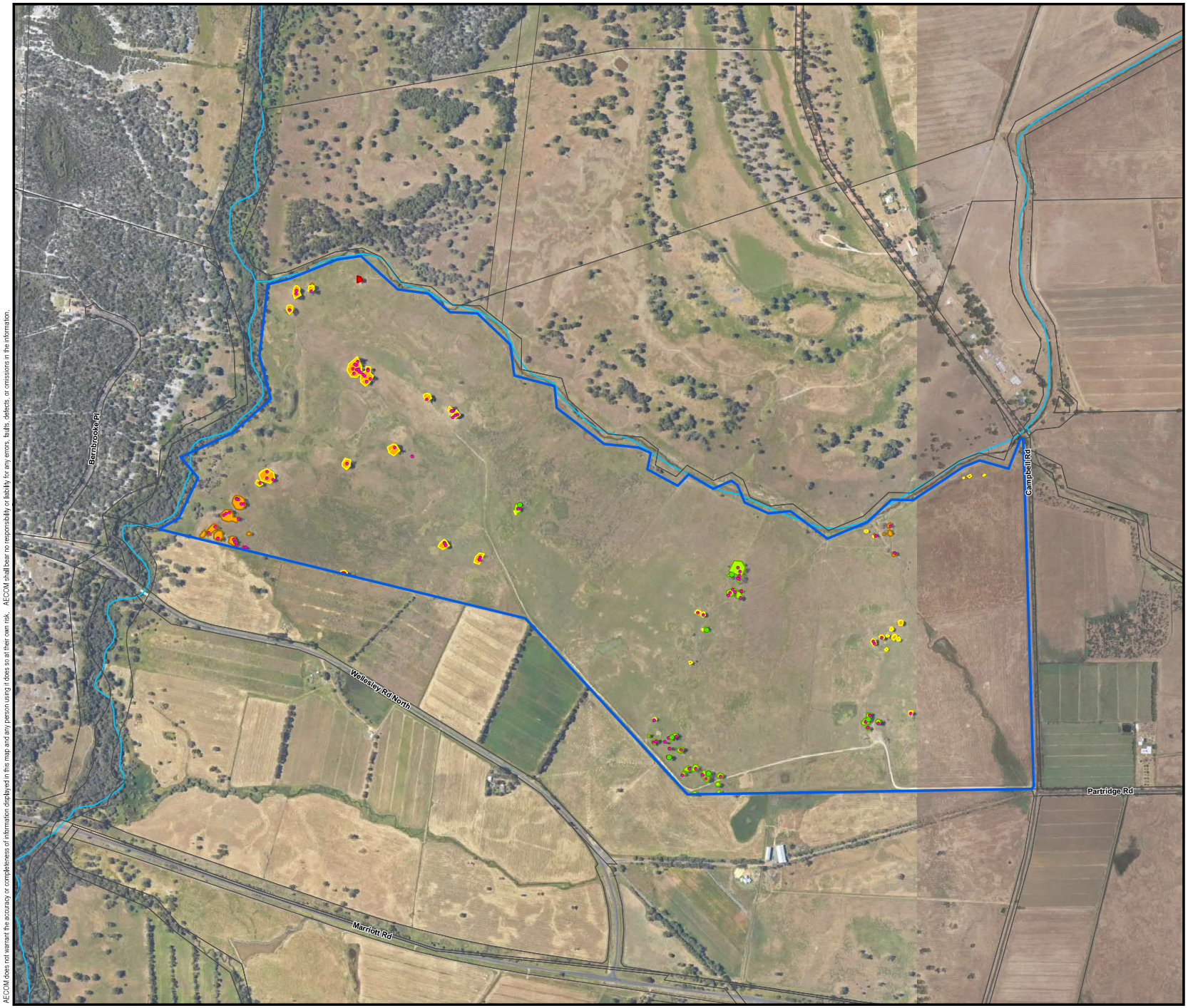
2.5.3.1 Fauna habitat

Three broadly defined fauna habitats were mapped within the Project Area (refer to Table 10). These comprise:

- Paddocks with Scattered Trees – 170.66 ha
- River, Drainage Lines and Riparian Vegetation – 7.41 ha
- Floodplain – 8.97 ha.

The Paddock with Scattered Trees fauna habitat occupies the largest area within the Project Area, and apart from the large mature eucalypts, is the poorest quality fauna habitat. Table 10 describes these three fauna habitats and discusses the conservation significant fauna species that may potentially utilise these habitats, or aspects of these habitats.

Aspects of all three fauna habitats may be utilised by conservation significant fauna species, particularly the large mature eucalypts which may potentially be utilised by Carnaby's Cockatoo (*Calyptorhynchus latirostris*), Baudin's Cockatoo (*Calyptorhynchus baudinii*), Forest Red-tailed Black-Cockatoo (*Calyptorhynchus banksii naso*), Western Ringtail Possum (*Pseudocheirus occidentalis*), with the river, drainage line and riparian vegetation potentially utilised by species including Australasian Bittern (*Botaurus poiciloptilus*), Sharp-tailed Sandpiper (*Calidris acuminata*), Glossy Ibis (*Plegadis falcinellus),* Chuditch (*Dasyurus geoffroii*), Quenda (Isoodon fusciventer), Carter's Freshwater Mussel (*Westralunio carteri*) and the Pouched Lamprey (*Geotria australis)*.



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LEGEND

- Lot Boundary (Lot 0 on Diagram 685 – Land ID 039815)
- Clearing Permit Area (0.96 Ha)
- Cadastral Boundary
- Black Cockatoo Breeding Trees
- Potential Black Cockatoo Breeding Trees

Carnaby Habitats

- High Quality
- Quality
- Low Quality

Fauna Habitat

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Figure 5

A3 size

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Table 10 Fauna Habitat Types in the Project Area

Habitat Type	Description	Area (ha)	Conservation Significant Species Potentially Utilising Habitat
Paddock with Scattered Trees and Drainage Areas	This habitat is predominantly cleared paddocks with scattered individual or clumps of large mature eucalypts (and other vegetation). It also contains the occasional soak / dam. The large eucalypts contain hollows and may provide significant fauna habitat. These trees would be classified as black cockatoo breeding and potential breeding trees.	170.66	• Carnaby's Cockatoo (Calyptorhynchus latirostris), Baudin's Cockatoo (Calyptorhynchus baudinii) and the Forest Red-tailed Black-Cockatoo (Calyptorhynchus banksii naso) may utilise the mature eucalypts within the paddock as foraging, roosting and / or breeding habitat • Mammals including the Western Ringtail Possum (Pseudocheirus occidentalis) may utilise the mature eucalypts within the paddocks • Waterbird species including the Glossy Ibis (Plegadis falcinellus) may utilise the grassy paddock habitat when wet • Fork-tailed Swift (Apus pacificus) may fly over this habitat.
River, Drainage Lines and Riparian Vegetation	This fauna habitat contains the river and riverine habitat to the west of the Project Area, the creeks and riparian vegetation along the northern boundary and north-south towards the eastern side of the Project Area. The riverine habitat contains mature flooded gums and paperbarks, with a generally degraded understorey through weeds and feral animals (e.g. Feral Pigs). The river had a moderate flow, with exposed sediments and woody debris. The creeks and riparian vegetation are also degraded from access by European Cattle.	7.41	• Carnaby's Cockatoo (Calyptorhynchus latirostris), Baudin's Cockatoo (Calyptorhynchus baudinii) and the Forest Red-tailed Black-Cockatoo (Calyptorhynchus banksii naso) may utilise the mature eucalypts and other native vegetation within the riverine habitat as foraging, roosting and / or breeding habitat • Waterbird species including Australasian Bittern (Botaurus poiciloptilus), Sharp-tailed Sandpiper (Calidris acuminata), Glossy Ibis (Plegadis falcinellus) may utilise aspects of this habitat • Mammals including the Chuditch (Dasyurus geoffroii), Quenda (Isoodon fusciventer), Western Ringtail Possum (Pseudocheirus occidentalis) may utilise the riverine habitat • Carter's Freshwater Mussel (Westralunio carteri) and the Pouched Lamprey (Geotria australis) may utilise the rivers and creeks of this habitat • Fork-tailed Swift (Apus pacificus) may fly over this habitat.
Floodplain	This habitat comprises a seasonally inundated floodplain with scattered vegetation. It also contains the occasional degraded soak. It is likely to be waterlogged during the wetter months of the year.	8.97	• Carnaby's Cockatoo (Calyptorhynchus latirostris), Baudin's Cockatoo (Calyptorhynchus baudinii) and the Forest Red-tailed Black-Cockatoo (Calyptorhynchus banksii naso) may utilise the mature eucalypts and other scattered native vegetation within this habitat as foraging, roosting and / or breeding habitat • Waterbird species including the Glossy Ibis (Plegadis falcinellus) may utilise this habitat when flooded • Fork-tailed Swift (Apus pacificus) may fly over this habitat.

2.5.3.2 Black Cockatoo Species

Roosting Trees

No roosting trees were identified within the site.

Foraging Habitat

The survey area contains a total of 0.56 ha of High Quality, 1.47 ha of Quality and 0.04 ha of Low Quality Carnaby's Cockatoo *Calyptorhynchus latirostris* foraging habitat (Figure 5). This comprised; paddocks with scattered remnant native trees over weeds. Signs of disease may be present in the area, with a number of dead and/or dying eucalypts. No Carnaby's Cockatoo *Calyptorhynchus latirostris* foraging evidence was recorded in the survey area.

The survey area contains a total of 0.56 ha of Quality and 1.47 ha of Low Quality Forest Red-tailed Black Cockatoo *Calyptorhynchus banksii naso* foraging habitat (Figure 5). This comprised; paddocks with scattered remnant native trees over weeds. Signs of disease may be present in the area, with a number of dead and/or dying eucalypts. No Forest Red-tailed Black Cockatoo *Calyptorhynchus banksii naso* foraging evidence was recorded in survey area.

The survey area contains a total of 0.56 ha of Quality and 1.47 ha of Low Quality Baudin's Cockatoo *Calyptorhynchus baudinii* foraging habitat. This comprised; comprising paddocks with scattered remnant native trees over weeds (Figure 5). Signs of disease may be present in the area, with a number of dead and/or dying eucalypts. No Baudin's Cockatoo *Calyptorhynchus baudinii* foraging evidence was recorded in survey area.

The foraging habitat assessment is presented in Appendix B. This defines 11 areas that were subject to assessment, as identified in Figure 5. The assessment was predominantly defined by the presence of hollow-bearing trees.

Foraging habitat and evidence of foraging recorded at the site is summarised in Table 11 and shown on Figure 5.

Table 11 Black Cockatoo foraging habitat at the site

Species	Habitat Quality			Foraging Evidence Recorded
	Low Quality	Quality	High Quality	
Carnaby's Cockatoo (*Calyptorhynchus latirostris)*	0.04	1.47	0.56	No foraging evidence was recorded in the site. Evidence recorded nearby.
Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso)*	1.47	0.56	0.0	No foraging evidence was recorded in the site.
Baudin's Cockatoo (*Calyptorhynchus baudinii)*	1.47	0.56	0.0	No foraging evidence was recorded in the site.

Breeding and Potential Breeding Trees

The survey area contains a total of 109 trees defined as potential Black Cockatoo breeding habitat trees according to the DSEWPaC (2012) guidelines (hollow-forming eucalypts with DBH ≥500 mm, ≥300 mm for Salmon Gum *Eucalyptus salmonophloia* and Wandoo Eucalyptus wandoo). Seven of these 109 trees contained hollows that were potentially suitable for use by breeding Black Cockatoos (Table 12 and Figure 5). All these trees are being retained in the retention areas.

Table 12 Trees with potentially suitable Black Cockatoo hollows within the Survey Area

ID	Longitude	Latitude	Species	Height (m)	DBH (cm)	Number of potentially suitable hollows
50	115.7984	-33.2035	Stag	18	85.3	2
67	115.804	-33.2103	*Eucalyptus grandis* (Flooded Gum)	18	103.4	1
74	115.8047	-33.2053	Stag	6	105.6	2
76	115.8028	-33.2098	*Corymbia calophylla* (Marri)	14	91	1
90	115.8029	-33.2093	*Corymbia calophylla* (Marri)	14	69	1
106	115.8088	-33.2089	*Corymbia calophylla* (Marri)	15	88	1
108	115.804	-33.2066	*Corymbia calophylla* (Marri)	12	79	1

2.6 Environmentally Sensitive Areas and Conservation Areas

No DBCA managed water or lands or Environmentally Sensitive Areas (ESAs) occur within the Project Area. Twenty Multiple Use wetlands have been mapped in the Project Area. These wetlands represent areas prone to waterlogging. Classification as Multiple Use for these wetlands means DBCA does not consider these wetlands to have significant conservation value.

The closest ESA is located approximately 400 m west of the Project Area and corresponds with a series of Conservation wetlands Figure 3).

The most significant of these is Benger Swamp Nature Reserve, a Conservation wetland (UFI 15,226) located approximately 2.3 km to the north east of the Project Area. Benger Swamp has been recognised in Directory of Important Wetlands as a wetland of national significance and is managed by the DBCA as part of the Benger Swamp Nature Reserve (R 34811) (Figure 6). The conservation value of this wetland has also been acknowledged by Birdlife International as an Important Bird Area and is protected under the Environmental Protection Act 1986 (EP Act) as an Environmentally Sensitive Area (ESA).

Other wetlands with conservation value near the Project Area a section of the Wellesley River riparian zone about 1.6 km downstream (south) that has been mapped as a Conservation Floodplain (UFI 1717).

The southwest corner of the Project Area intersects the Darling System Redbook Area (System Number 6), which was included in the Environmental Protection Authority Redbook of Recommended Conservation Reserves. This area corresponds with riparian vegetation associated with Wellesley River.

2.7 Cultural heritage

2.7.1 Aboriginal Heritage

The Department of Planning, Lands and Heritage (DPLH) Aboriginal Heritage Inquiry System (AHIS) indicates there are no Registered Aboriginal Heritage Sites or Other Heritage Places within the Project area. Therefore, disturbance of Aboriginal heritage is unlikely. The nearest Register Aboriginal Heritage Site is Marriott Road (ID 4887), an artefacts/scatter site, located approximately 1.5 km southwest of the Project area.

2.7.2 European Heritage

There are no World Heritage Properties or National Heritage Places within 10 km of the Project Area.

The nearest registered State heritage site is Benger Swamp Nature Reserve located approximately 2.3 km northeast of the Project area.

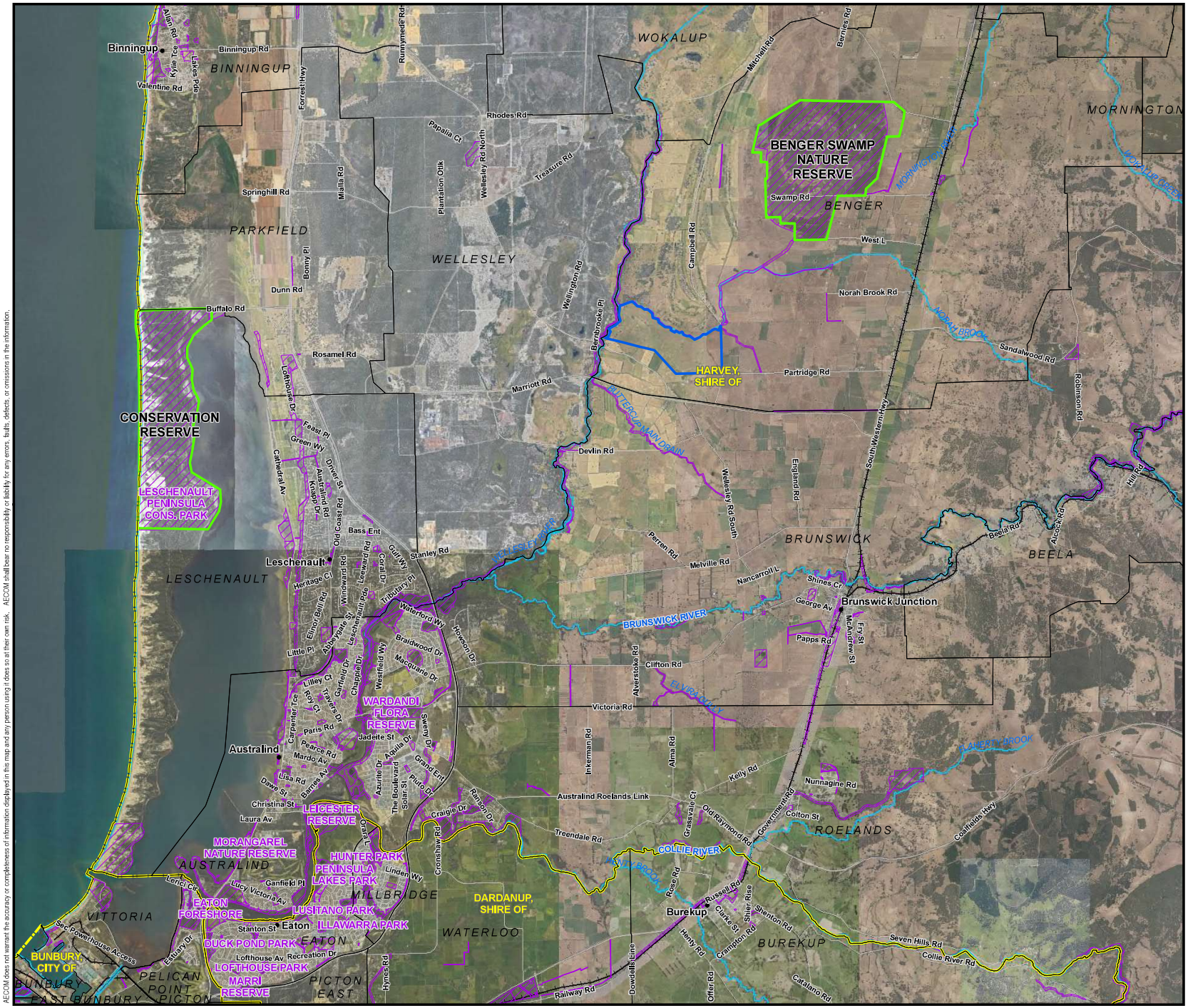
Heritage sites listed in the Shire of Harvey Municipal Inventory do not occur within the Project area. The nearest Municipal Inventory heritage site is 'Bill Arthur's Bridge' located approximately 160 m south of the Project area where Wellesley Road North crosses the Wellesley River.

The nearest heritage sites listed in the Harvey Municipal Heritage Inventory Review (Shire of Harvey, 2015) are detailed in Table 13.

Table 13 State listed Heritage Places near the site

Site Name	Place ID	Listing	Distance from Site
Marriott Road	ID 4887	Department of Planning, Lands and Heritage (DPLH) Aboriginal Heritage Inquiry System (AHIS)	An artefacts/scatter site, located approximately 1.5 km southwest of the Project area
Benger Swamp Nature Reserve	21	Shire of Harvey (2015) Heritage Management Category 3 Department of Parks and Wildlife (R 34811) Department of Biodiversity, Conservation and Attraction (UFI 15,226)	Approximately 2.3km north-east Lot 4 Swamp Road (Reserve 34811), Benger
Bill Arthurs Bridge	33	Shire of Harvey (2015) Heritage Management Category 3	Approximately 160m south Wellesley Road, Brunswick

Heritage Management Category 3 means that the Level of Significance is "Some/Moderate Significance".



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LEGEND

- Lot Boundary (Lot 0 on Diagram 685 – Land ID 039815)
- Nature Conservation Reserve
- Reserves
- Local Government Area Boundary
- Suburb Boundary

Data sources: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

Base Data: (c) Based on information provided by and with the permission of the Western Australian Land Information Authority trading as Landgate (2010).

Environmentally Sensitive Areas and Conservation Reserves

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Figure 6

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3.0 Proposed Clearing

3.1 Schedule

The applicant intends to commence clearing in Q3/Q4 2020. Construction of the project is expected to be completed by the end of 2021. Timing of clearing and other construction activities will not commence until relevant approvals are obtained.

3.2 Clearing Area

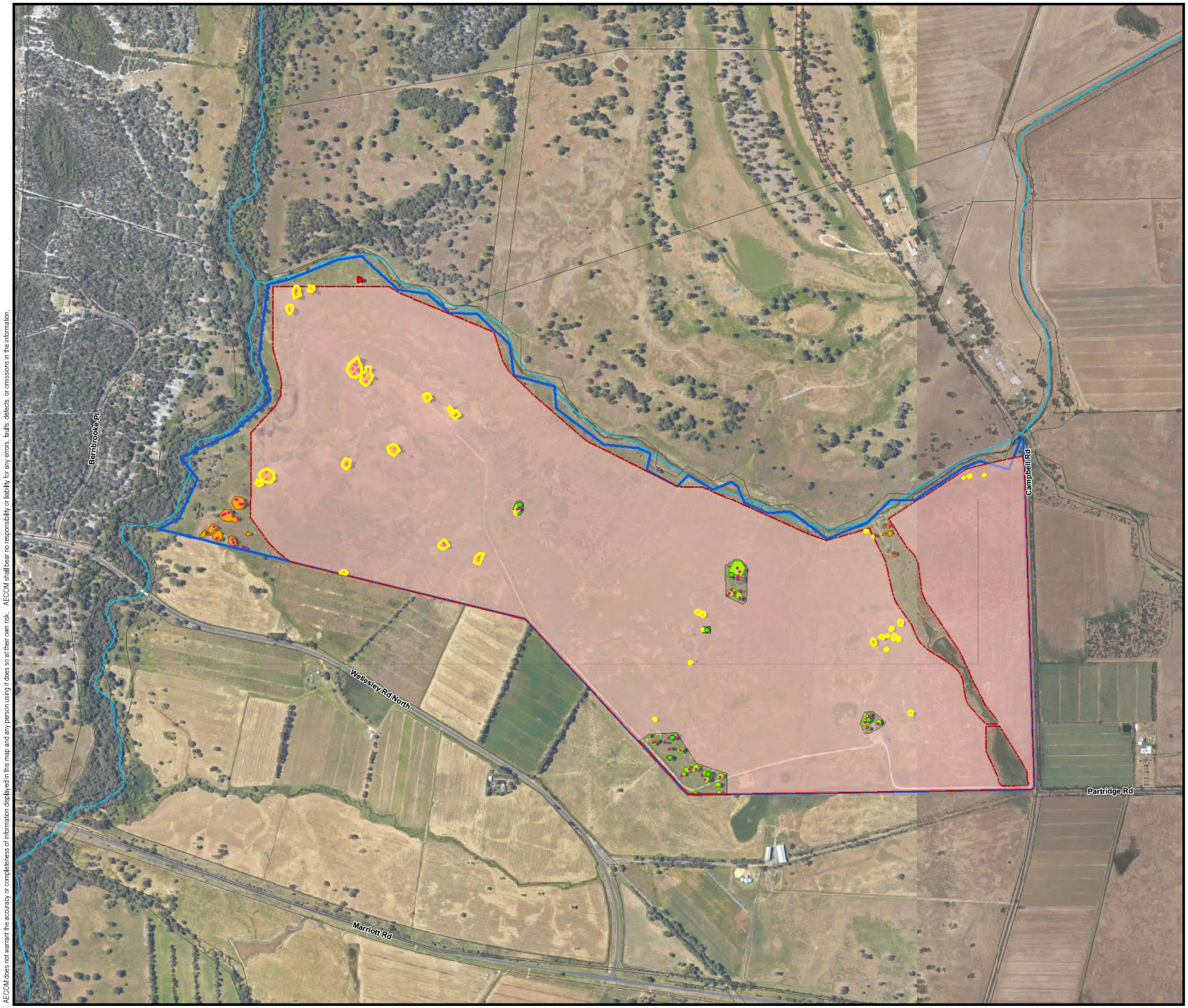
This application seeks approval to clear up to 0.96 ha of native vegetation for construction and operation of the Benger Solar Farm. Clearing proposed is summarised in Table 14. This clearing is based on the concept layout shown in Appendix C and Figure 7.

Table 14 Proposal characteristics

Aspect	Proposal Characteristics
Description	Mechanical clearing native vegetation for the development of a solar farm.
Project Area	187 ha
Clearing Area	0.96 ha of native vegetation
Life of project	30 years

3.3 Clearing Method

Vegetation will be removed using mechanical clearing with heavy earth moving machinery.



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LEGEND

- Lot Boundary (Lot 0 on Diagram 685 – Land ID 039815)
- Development Envelope
- Development Footprint
- Clearing Permit Area (0.96 Ha)
- Cadastral Boundary
- Black Cockatoo Breeding Trees
- Potential Black Cockatoo Breeding Trees

Carnaby Habitats

- High Quality
- Quality
- Low Quality

Indicative Project Development Layout

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Figure 7

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4.0 Assessment Against the 10 Clearing Principles

Proposed clearing has been assessed against the 10 Clearing Principles in accordance with *A Guide to the Assessment of Applications to Clear Native Vegetation* (DER, 2014).

Assessment categories used were:

- Not at variance – there is enough data to provide certainty
- Not likely to be at variance – there is an element of uncertainty
- May be at variance – there is insufficient data available to fully assess the impacts
- At variance – there are known impacts or significant risk of impact
- Seriously at variance – clearing will result in an impact so significant it is likely to be irreversible.

The results of the clearing assessment are presented in Table 15.

Table 15 Assessment against 10 Clearing Principles

Assessment Results	Source/ Tools for Assessment	Conclusion
Principle (a) - Native vegetation should not be cleared if it comprises a high level of biological diversity.		
The site does not occur in any biodiversity hotspots identified by the Threatened Species Scientific Committee (DoEE, 2019). Vegetation at the site does not represent any Priority Ecological Communities (PECs) or Threatened Ecological Communities (TECs). No Threatened or Priority flora species have been recorded at the site during the ecological survey. None of the flora recorded represented range extensions for the species. 26 conservation significant fauna species have potential to use the site. 3 these species has been recorded at the site. Proposed clearing is unlikely to be at variance with this principle on the basis that vegetation present is degraded and contains assemblages of species that are common and widespread throughout the region.	Appendix B	Not likely to be at variance with this principle
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 indigenous to Western Australia		
26 conservation significant fauna have potential to utilise habitat proposed for clearing. Habitat suitable for these species is generally marginal, highly modified and poor in quality. The exception to this is the three Black Cockatoo species. Up to 0.96 ha of Black Cockatoo foraging habitat is proposed for clearing. 55 potential breeding trees are proposed for clearing although none of the potential breeding trees have hollows potentially suitable for nesting by Black Cockatoos. Use of these trees by Black Cockatoos is considered limited due to the site being largely cleared. Proposed clearing may be at variance with this principle on the basis that clearing will require the removal of Black Cockatoo foraging habitat.	Appendix B	May be at variance with this principle

Assessment Results	Source/ Tools for Assessment	Conclusion
Principle (c) - Native vegetation should not be cleared if it includes or is necessary for the continued existence of, rare flora.		
No conservation significant flora has been recorded within the proposed clearing area. The proposal will not require clearing of rare flora species and is therefore not at variance with this principle.	Appendix B	Not at variance with this principle.
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.		
No TECs or PECs (or their buffers) have been recorded within the proposed clearing area. The distance between the development area and the potential TECs (and PECs) on the western side of Wellesley River for example, is greater than 50 m. The proposal will not require clearing of TECs or PECs and is therefore not at variance with this principle.	Appendix B	Not at variance with this principle
Principle (e) - Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been significantly cleared.		
The National Objectives and Targets for Biodiversity Conservation 2001-2005 (Commonwealth of Australia, 2001) recognised that the retention of 30% or more of the pre-clearing extent of each ecological community is necessary if Australia's biodiversity is to be protected. According to the Government of Western Australia (2018): • 32.02% of vegetation association 968 remains intact. This is above the recommended target of retaining 30% of vegetation at a local level. The proposed clearing is not at variance with this principle because it requires clearing below the national target and objective for biodiversity conservation.	Appendix B	May be at variance with this principle
Principle (f) - Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or a wetland		
Proposed clearing includes: • Part of Multiple Use wetlands - palusplain UFI 15,225. • Small damplands interspersed throughout the palusplain No conservation significant wetland vegetation is proposed for clearing and the Project has been designed to avoid clearing of conservation category wetlands such as the Wellesley River foreshore. Clearing is not expected to have a significant impact on any important wetlands or watercourses. This proposal is therefore not at variance with this principle.	Appendix B	Not likely to be at variance with this principle
Principle (g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.		
Clearing proposed involves removal of small, isolated patches of native vegetation scattered throughout an extensively cleared landscape. The small amount of clearing is not likely to result in significant changes to soil erosion, soil acidity or salinity. The clearing of vegetation is therefore not likely to cause appreciable land degradation and not likely to be at variance to this principle.	DWER, 2019	Not likely to be at variance with this principle

Assessment Results	Source/ Tools for Assessment	Conclusion
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.		
The nearest conservation area is Benger Swamp Nature Reserve (R 34811), which is located approximately 1.6 km north-east of the site. The separation distance between Benger Swamp Nature Reserve and the site is considered sufficient to prevent significant adverse impacts. Riparian vegetation along the Wellesley River is likely to provide an ecological linkage for local fauna. This area is protected as an ESA. No clearing is proposed within the ESA. Given the nature and scale of clearing proposed it is unlikely this proposal would result in significant impacts to offsite receptors such as nearby conservation areas. The proposal is therefore not likely to be at variance with this principle.	Appendix B	Not likely to be at variance with this principle
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.		
Given that vegetation proposed for clearing generally lacks an understorey and poorly draining soils limit infiltration to groundwater, it is unlikely that proposed clearing would result in significant changes to surface water runoff or groundwater recharge. No soils prone to erosion are known to exist at the site. Soils on the western boundary have relatively higher salinity Due to the history of eutrophication of the Peel-Harvey inlet, potential for clearing to increase nutrient loading in the Wellesley River has been considered. Potential for the clearing to cause significant changes to downstream water quality is low. Although the area is used for crop and livestock farming and may be subject to seasonal fertilisation, drainage within the site is generally poor and soils types present are not prone to erosion. The small amount of clearing proposed is therefore not likely to cause significant changes to nutrient loads discharged to Harvey River is low. Other water quality parameters considered include potential for acidification from disturbance of ASS. Only shallow disturbance of soil in a small area with a low to moderate risk of ASS is expected. Consequently, potential for disturbance from ASS is considered unlikely. No significant changes to the hydrological regime (including water quality) are expected to result from the proposed clearing. This proposal is therefore not likely to be at variance to this principle.	Appendix B	Not likely to be at variance with this principle
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.		
Limited clearing of native vegetation is proposed within the wider Wellesley River floodplain. This floodplain is predominately extensively cleared, no widening of the river is proposed, and no riparian vegetation is proposed for clearing. Given the nature and scale of clearing proposed, it is unlikely the proposal would exacerbate the incidence or intensity of flooding.	Appendix B	Not likely to be at variance with this principle

5.0 Conclusions

South Energy proposed to clear 0.96 ha of native vegetation for development of the Benger Solar Farm.

Assessment against the 10 clearing principles identified that proposed clearing is not likely to be at variance with 9 of the clearing principles. Proposed clearing may be at variance with principle b which relates to the clearing of fauna habitat.

5.1 Principle b – Fauna Habitat

The proposal may be at variance with principle b because the proposed clearing includes removal of 0.96 ha of potential Black Cockatoo foraging habitat and up to 55 potential black cockatoo breeding trees. Use of these trees by Black Cockatoos is considered limited and the clearing will not have a significant impact on the species.

6.0 References

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