

A decorative background element consisting of a topographic map with contour lines, rendered in a light grey color. The map features several distinct peaks and valleys, with the most prominent peak located in the lower-left quadrant of the page.

Ongerup Grain Receival Site Expansion
Native Vegetation Clearing Permit Application
Supporting Document

CBH Group

DOCUMENT TRACKING

Project Name	Ongerup Grain Receival Site Expansion Native Vegetation Clearing Permit Application Supporting Document
Project Number	16079 Ongerup Grain Receival Site Expansion Clearing Permit
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Approved by	Jeremy Mitchell
Status	Final
Version Number	2
Last saved on	20 December 2021

This report should be cited as 'Eco Logical Australia 2021. *Ongerup Grain Receival Site Expansion Native Vegetation Clearing Permit Application Supporting Document*. Prepared for CBH Group.'

ACKNOWLEDGEMENTS

This document has been prepared by Eco Logical Australia Pty Ltd with support from CBH Group

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Template 2.8.1

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Abbreviations

Abbreviation	Description
BC Act	<i>Biodiversity Conservation Act 2016</i>
BoM	Bureau of Meteorology
CBH	Cooperative Bulk Handling
CEMP	Construction Environmental Management Plan
DAFWA	Department of Agriculture and Food Western Australia
DAWE	Department of Agriculture, Water and the Environment
DBCA	Department of Biodiversity, Conservation and Attractions
DoEE	Department of the Environment and Energy
DPIRD	Department of Primary Industries and Regional Development
DPLH	Department of Planning, Lands and Heritage
DWER	Department of Water and Environmental Regulation
ELA	Eco Logical Australia
EP Act	<i>Environmental Protection Act 1986</i>
EPBC Act	<i>Environmental Protection and Biodiversity Conservation Act 1999</i>
ESA	Environmentally Sensitive Areas
IBRA	Interim Biogeographic Regionalisation for Australia
km	Kilometres
m	Metres
mm	Millimetres
mgbl	Metres below ground level
MNES	Matters of National Environmental Significance
NVCP	Native Vegetation Clearing Permit
PEC	Priority Ecological Community
TEC	Threatened Ecological Community
WAH	West Australian Herbarium
WONS	Weeds of National Significance

1. Introduction

1.1. Background

The Cooperative Bulk Handling Group (herein 'CBH') is Australia's largest cooperative. It is a Western Australian based grain storage and handling organisation, with operations extending along the value chain from fertiliser to grain storage, handling, transport, marketing and processing. Owned and controlled by approximately 3,700 Western Australian grain growing businesses, the core purpose of the CBH Group is to sustainably create and return value to growers. Its storage and handling system currently receives and exports around 90 per cent of the Western Australian grain harvest.

CBH has total assets of around \$2 billion and employs approximately 1,100 permanent employees and up to 1,800 casual employees during the harvest period from October through to January. Since its establishment in Western Australia in 1933, CBH has continuously evolved, innovated and grown, with receival sites and offices throughout Western Australia and port terminals located at Geraldton, Kwinana, Albany and Esperance.

CBH proposes to expand its existing Ongerup Grain Receival Site located at 67 Buncle Street (Lot 500 on DP 416001) Toompup, 600 m south of the town of Ongerup (the Proposal; Figure 1) in the Great Southern Region of Western Australia. The Ongerup Grain Receival Site has been identified in CBH's network strategy as a primary (important) site (Figure 2). The proposed expansion will include the construction of 196,500 tonnes of required additional grain storage (via up to six open bulkhead storage types) and associated infrastructure such as internal roads, grain discharge areas, weighbridges and sampling locations. The expansion is required to increase grain storage capacity due to improved grower yields and consolidation of the CBH grain receival sites in the region.

The Proposal was referred to the Department of Agriculture, Water and the Environment (DAWE) on 20 August 2021 (EPBC reference 2021/9029) and resubmitted with edits on 8 September 2021. The Proposal included clearing up to a total of 15.3 ha of vegetation within a 15.7 ha 'Proposal Area', which is part of a 38.0 ha 'Total Proposed Site Footprint'. The remainder of the Total Proposed Site Footprint comprises an 18.3 ha 'Avoidance Footprint' and the 3.9 ha 'Existing Development Area' (Figure 3). The vegetation proposed to be cleared contains habitat for Matters of National Environmental Significance (MNES). On 14 October 2021, the Minister for the Environment determined that the Proposal constituted a controlled action under s 75 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and thus required assessment and a decision about whether approval should be granted under that act. The controlling provision was 'Listed Threatened Species and Ecological Communities' (addressed under ss 18 and 18A of the EPBC Act), namely:

- *Leipoa ocellata* (Malleefowl)
- *Phascogale calura* (Red-tailed Phascogale).

This document has been prepared to support the granting of a Native Vegetation Clearing Permit (NVCP) for the Proposal under Part V Division 2 of the *Environmental Protection Act 1986* (EP Act) and approval under the EPBC Act (accredited assessment under the bilateral agreement).

This NVCP application includes the following information:

- The justification for the Proposal
- An overview of the existing environmental conditions of the site
- An evaluation of potential impacts of the vegetation clearing
- An evaluation of compliance of the proposed clearing against the ten clearing principles listed under Schedule 5 of the EP Act
- Matters of National Environmental Significance
- Environmental approvals and management requirements
- Proposed environmental offsets
- Stakeholder consultation.

1.2. Location, ownership and zoning

The Proposal Area is located at 67 Buncle Street (Lot 500 on DP 416001) Toompup, 600 m south of the town of Ongerup (Figure 1). Ongerup is located in the Great Southern region of Western Australia. It is 410 km south-east of Perth and 150 kilometres north-east of Albany. Nearby towns include Borden (28 km south-west) and Jerramungup (40 km east).

The Proposal Area location (Lot 500 on DP 416001) is a leasehold with the Primary Interest Holder CBH. The Department of Planning, Lands and Heritage (DPLH) is the agency responsible for the Crown land. The 21-year lease expires on 6 April 2032. The Certificate of Title and Deposited Plan 416001 are attached in Appendix A.

Under the Shire of Gnowangerup Local Planning Scheme No. 2 (District Scheme), the Proposal Area is listed under the Local Scheme Reserves for Public Purposes (Water). CBH engaged with Water Corporation, which supported and divested a portion of Reserve 15650, held under its Management Order, back to the State for the purposes of amalgamating the additional land with CBH's existing site - to form what is now known as Lot 500 held under lease by CBH. A Lease and Amalgamation Order (Landgate #0184669) was registered at Landgate by DPLH on 1 July 2019 for the land to be included within the existing Ongerup Grain Receival Site Lease (Lease #L599733), as noted on the current property title LR3170/818.

1.3. Project description

Construction of the initial stage of the Proposal is proposed to be undertaken between January 2023 and August 2023. This initial stage includes the development of the following:

- Clearing of 4.6 ha of native vegetation (within a 4.9 ha area [i.e., the initial part of the Proposal Area]) adjacent to two existing 20,000 t and one existing 14,500 t capacity open bulkhead grain storages, for the purpose of:
 - Installing two new 32,750 t capacity new open bulkhead grain storages
 - Removal of one existing 14,500 t capacity open bulkhead storage
 - Undertaking bulk earthworks
 - Constructing and sealing internal roads and pads for the two open bulkhead grain storages
 - Installing one discharge grid and ground conveyor for in-loading grain
 - Constructing open stormwater drainage around the internal roads to a new basin
 - Installing crib and ablution facilities/buildings.

Subsequent staging of the development will be undertaken progressively over approximately ten-year period and include the following:

- Progressively clearing the remaining 10.7 ha of native vegetation (within a 10.8 ha area [i.e., the remainder of the Proposal Area])
- Undertaking bulk earthworks
- Constructing and sealing truck marshalling area, internal roads and pads for the open bulkhead grain storages
- Installing grain sampling platform/laboratory
- Installing weighbridge and office
- Installing crib and ablution facilities
- Installing four 32,750 t capacity open bulkhead grain storages
- Installing two discharge grids and ground conveyors for in-loading grain
- Constructing open stormwater drainage around the internal roads to the basin.

All stages of the development are part of this NVCP application. The proposed site development plan is shown in Figure 4.

1.4. Proposal benefits

The Proposal is required to increase grain storage capacity due to improved grower yields and consolidation of the CBH grain receival sites in the region. It will cater for up to 196,500 t of grain storage required to manage forecast increased grain production in the Ongerup area.

In addition to operational, financial, grower and logistical considerations, when identifying expansion options, under its Network Strategy, CBH seeks to build or expand sites in proximity to regional towns and communities built around the original grain receival site. This contributes to the longevity of rural communities by employing local and regional residents and customers for local businesses during the out-loading of grain and peak harvest periods. As such, the options explored for Ongerup were focused on locations proximate to the local community and the existing CBH receival site.

Ongerup is a CBH Network Strategy ('NWS') site of the future and has been identified for expansion in the CBH 2021-25 Network Plan. Expansion at Ongerup will allow for:

- Additional services to be offered to Ongerup growers
- Relieving pressure on Borden which is also oversubscribed
- Handling the forecast production growth in the area
- Elimination of the potential for Ongerup to close resulting in Diversion of grain to Borden or a requirement to manage excess receival through 'harvest surge moves to port'.

Expanding Ongerup will allow:

- Ongerup to service growers in its catchment without having to fill and then close
- Elimination of significant 'harvest surge moves to port' from Borden
- Approximately 9,000 t growth in local growing catchment to be received at Ongerup
- Additional services to be offered, attracting additional tonnes that are normally forced to cart longer distances to sites that have these additional services and grain segregations available

- Significant 'cycle time' (refer below) savings estimated to be:
 - 2.2 minutes for receivals already delivered at Ongerup
 - 14.5 minutes for receivals pulled back from Borden.

'Cycle times' is an important CBH receivals metric as it relates to the weather and quality risks to standing crops experienced by growers in not being able to harvest and deliver crops in a timely manner.

During harvest, CBH provides accommodation both on- and off-site for harvest staff, who are increasingly harder to attract into regional towns. Locating and expanding sites within town areas is an important criterion for CBH. It helps attract and retain staff as people can readily access local services and amenities, creates a sense of community and provides better accommodation options. Proximity to town also provides a safer working environment due to access to support services, reduced isolation, minimised driving on unsealed surfaces and reduced travel distance for employees after long shifts.

1.5. Alternative Proposal options

CBH has explored alternative options to avoid clearing native vegetation within the Proposal Area. This included expanding at alternative sites and upgrading the existing Ongerup sites.

1.5.1. Development at alternative sites

CBH seeks to expand sites in proximity to regional towns and preferably built around an existing and operating grain receival site. The alternative options explored for Ongerup meet these criteria options identified at Ongerup and Borden.

Borden, 28 km from Ongerup, is closer to Albany Port, which receives grain transported by truck for export by ship and is the only plausible alternative site for the Ongerup grain catchment. This is because site options for possible expansion need to be close to existing CBH infrastructure. Expansion site proximity to existing sites avoids duplication of assets, reduces additional operating costs and minimises the impact on grower cycle time (the time it takes to deliver grain to a CBH site and return for another load). The site must also be located on roadways that are RAV 7 truck (Restricted Access Vehicles, up to approximately 36 m/100 t) compliant to facilitate grain loading and accommodate increasing truck sizes.

CBH has explored locations on parcels of farming land mostly cleared of native vegetation close to the existing Ongerup or Borden sites to continue using existing infrastructure. CBH presented formal offers to landowners to purchase:

1. Part Lot 378 on DP 80361 Buncle St, Ongerup.
2. Part Lot 869 on DP 201846 Buncle St, Ongerup.
3. Part Lot 9001 on DP 67780 Magitup Road, Borden.

The landowner for Options 1 and 2 (Figure 5) holds significant land holdings surrounding the town and on key logistical pathways. However, they have been adamant that they are unwilling to sell farmland to CBH at a reasonable commercial land price over the last two years. Option 3 was also ruled out as the landowner is unwilling to sell cleared land to CBH for the Borden expansion.

1.5.2. Utilising the existing footprint

CBH has two grain receival sites at Ongerup, a 'town site' and Ongerup South (the Existing Development Area). The town site is located centrally at the junction of Eldridge Street, Buncle Street and Boxwood Hill-Ongerup Road.

CBH has reviewed the options to expand the grain receival capabilities within the current town site and Ongerup South footprints. The expansion of the town site is constrained due to adjacent infrastructure. This site already contains high-density storage and is located in the centre of Ongerup, resulting in large trucks travelling through the town centre in peak harvest periods. Ongerup South represents an improved separation distance to the town centre, and its associated land uses. Ongerup South infrastructure currently occupies all of the cleared areas available at the site, meaning further clearing will be necessary to accommodate any expanded capacity there.



Figure 1: Location of the Proposal Area

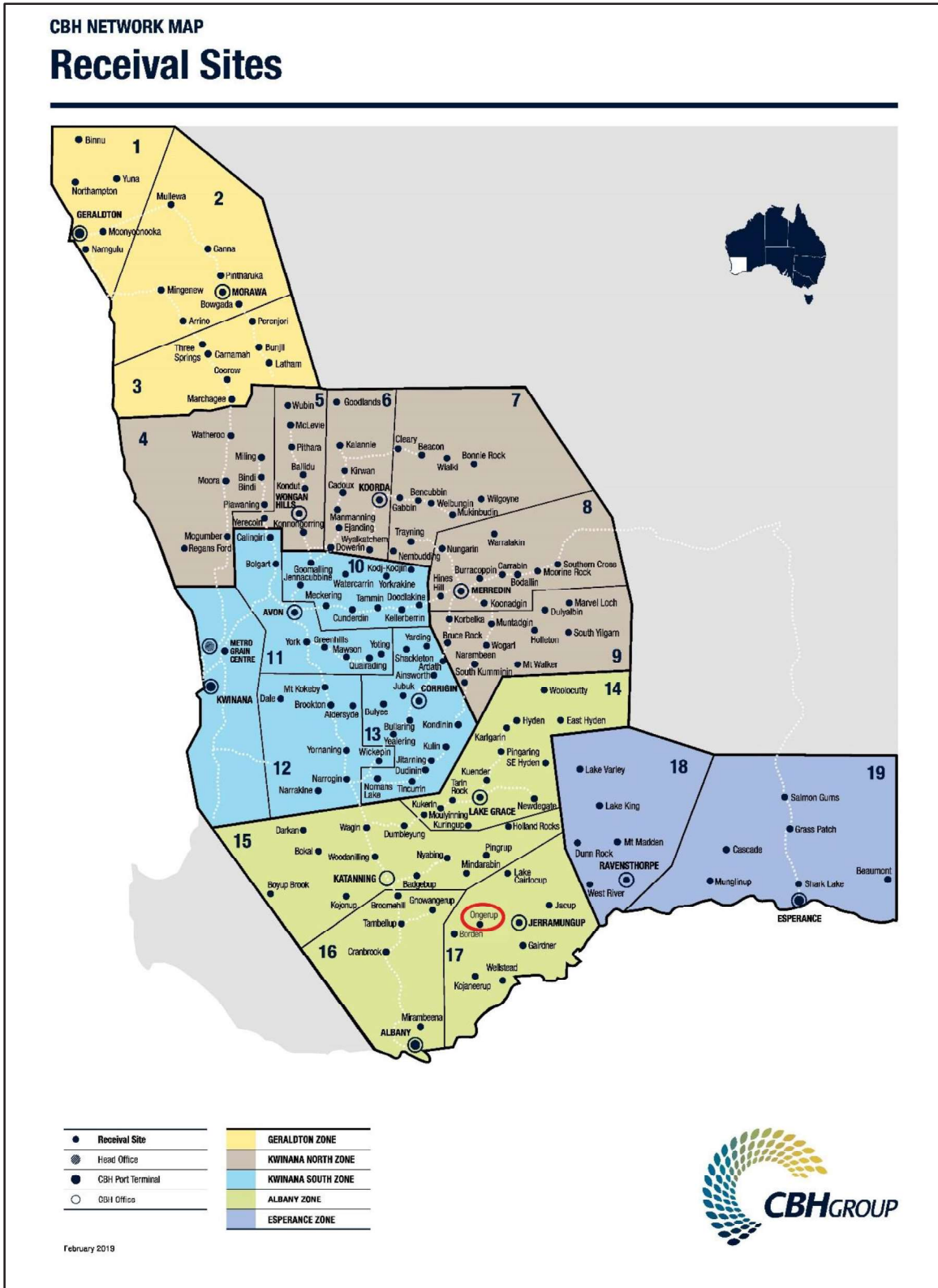


Figure 2: CBH Network Receive Network



Figure 3: Total Proposed Site Footprint

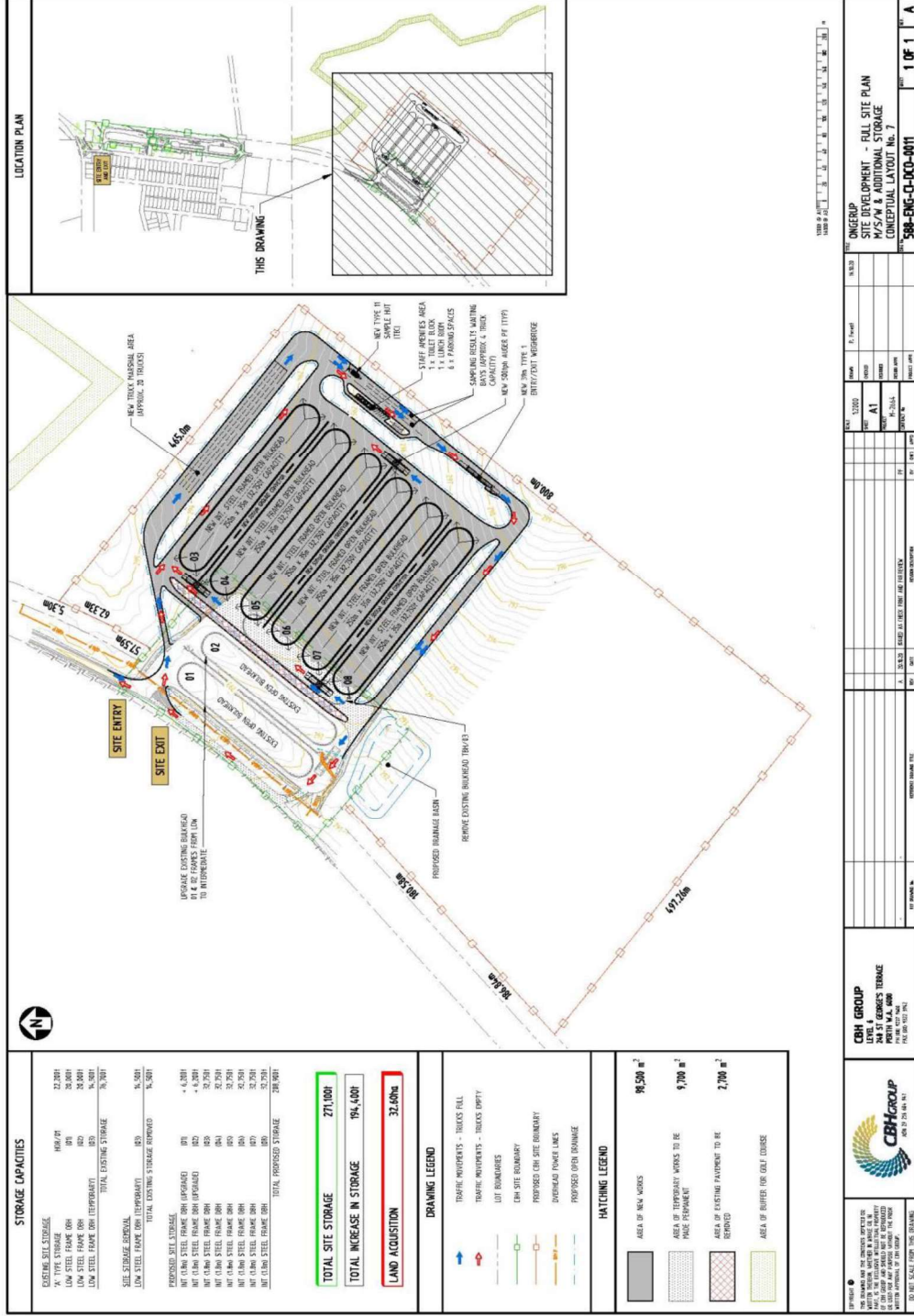


Figure 4: Proposed site development plan (exact location of elements within the Proposal Area is subject to change)

Figure 5: Landowner (options 1 & 2) pastoral holdings in proximity to the Proposal Area

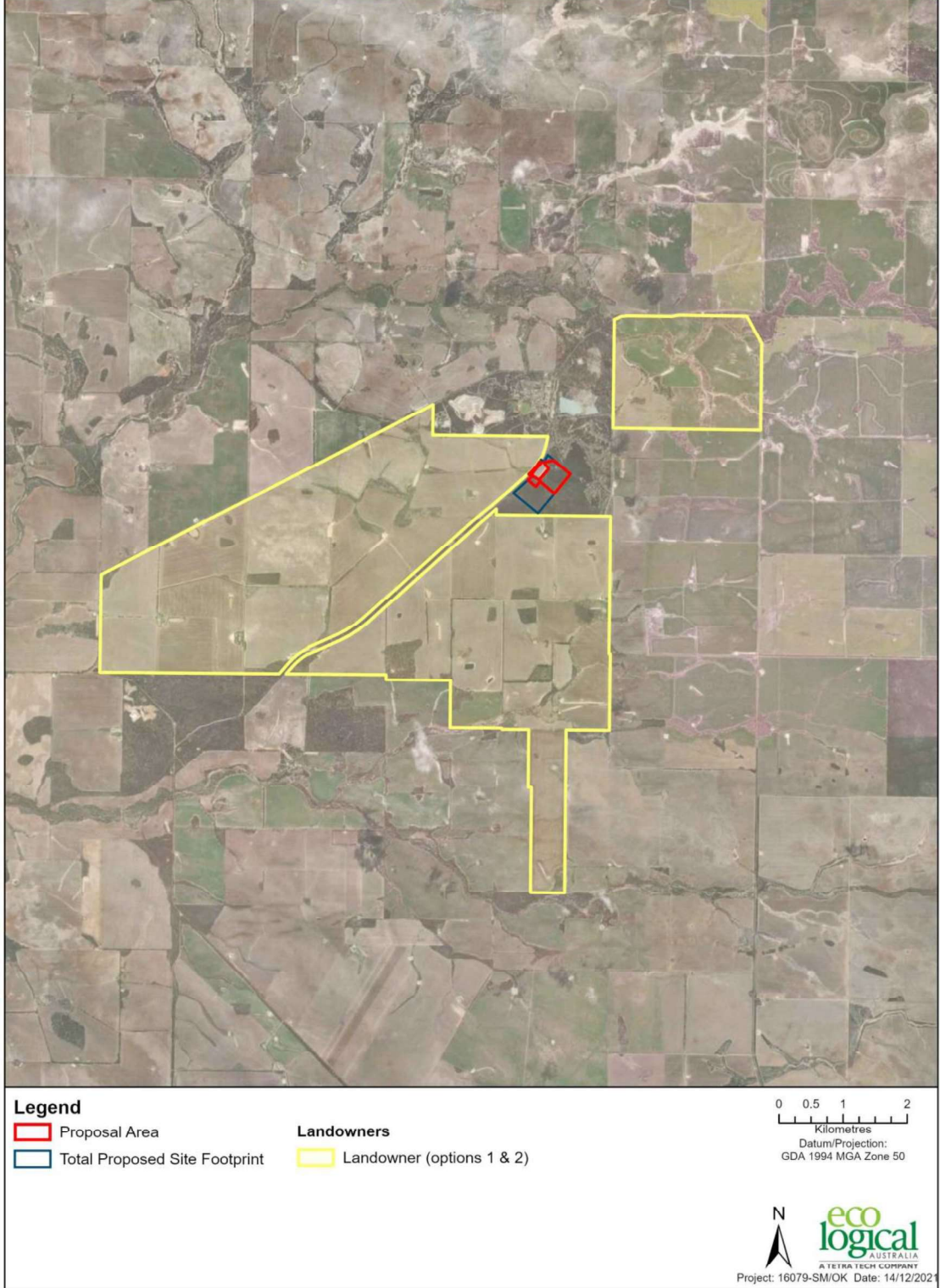


Figure 5: Landowner (options 1 & 2) pastoral holdings in proximity to the Proposal Area

2. Physical Environment

2.1. Biogeographic and regional setting

The Interim Biogeographical Regionalisation for Australia (IBRA) classifies and maps Australia's landscapes into 89 large, geographically distinct bioregions based on common climate, geology, landform, native vegetation and species information. The Proposal Area is located in the Mallee IBRA bioregion and the Western Mallee (MAL2) IBRA subregion (DAWE 2021).

The Mallee bioregion is the south-eastern part of Yilgarn Craton. Its landscape is gently undulating, with partially occluded drainage. The landscape is fragmented, with many areas completely cleared for dry-land agriculture. The Western Mallee (MAL2) subregion has more relief than its Eastern Mallee (MAL1) counterpart, and its main surface types comprise clays and silts underlain by Kankar, exposed granite, sandplains and laterite pavements. Within this subregion, mallee vegetation communities are found on various surfaces, while eucalypt woodlands occur mainly on fine-textured soils, with scrub-heath on sands and laterite (Beecham and Danks 2001).

2.2. Climate

The Western Mallee subregion experiences a warm Mediterranean climate with an annual rainfall of 250-500 mm (Beecham and Danks 2001). Based on climate data from the nearby Bureau of Meteorology (BoM) Ongerup weather station (station number 10622, rainfall data 1914 – current), the Proposal Area receives an annual mean of 387.5 mm of rainfall with the wettest period between June and August (BoM 2021).

Mean monthly maximum temperatures experienced in the area range from 28.8°C in January to 15.1°C in July. Mean monthly minimum temperatures range from 14.3°C in February to 5.8°C in July and August (BoM 2021).

2.3. Geology, landform and soils

The following summarises the soil profile across the Proposal Area (Galt Geotechnics 2020):

- Sand/Silty Sand (SP-SM): fine to coarse-grained, grey, with about 10-25% low plasticity fines, variably dry and moist, variable density (very loose to dense), extending from the surface to depths of around 0.3 m to 0.8 m; overlying
- Sandy Clay (CI – CH): medium to high plasticity, grey/white mottled pink/white, 30-50% fine to coarse-grained sand, typically very stiff, dry and desiccated, possibly cemented, extending to depths ranging from 1.3 m to the maximum investigated depth of 2.5 m; overlying
- Inferred rock.

The Proposal Area contains one geological unit (Geoscience Australia 2016):

- Felsic Intrusives 74292: Undifferentiated felsic intrusive rocks, including monzogranite, granodiorite, granite, tonalite, quartz monzonite, syenogranite, diorite, monzodiorite, pegmatite. It is locally metamorphosed, foliated, gneissic. Local abundant mafic and ultramafic inclusions.

2.4. Hydrology

The Proposal Area is located in the Albany Coast Basin, within the Beaufort Inlet/Pallinup River catchment. No major or minor drainage channels run through or are adjacent to the Proposal Area. There are no surface water features or wetlands present within the Proposal Area; however, swale drains are located around the perimeter of the Existing Development Area (Galt Geotechnics 2020). If surface water were present within the Proposal Area, it would flow north-westerly, reflecting site topography. The depth to groundwater is unknown; however, groundwater was not encountered in any geotechnical test pits (maximum pit depth 2.6 m). Within the Proposal Area, perched groundwater is likely to develop on shallow rock and clayey soils during the wetter times of the year (Galt Geotechnics 2020).

3. Biological Environment

3.1. Previous ecological surveys

Flora, vegetation and fauna within the Proposal Area have been assessed during two biological surveys undertaken in September 2018 (ELA 2021a) and November 2020 (ELA 2021b). The results of these surveys are compiled below. Where applicable, data is presented for the entire Lot 500 (the Total Proposed Site Footprint; 38.0 ha, containing 33.5 ha of vegetation), where the survey data cannot be separated for the Proposal Area (15.7 ha, containing 15.3 ha of vegetation).

3.2. Flora and Vegetation

3.2.1. Flora

A flora likelihood of assessment undertaken prior to the field survey identified 49 conservation-listed flora species as possibly occurring within the Total Proposed Site Footprint (ELA 2021a). Forty-five conservation-listed species considered as possibly occurring within the Total Proposed Site Footprint are unlikely to occur (ELA 2021a,b). This assessment was based on the availability of suitable habitat, the proximity of previous records and adequate survey effort.

A total of 149 taxa from 90 genera and 31 families were recorded within 16 quadrats established across the Total Proposed Site Footprint and from opportunistic collections. The average native perennial species richness per quadrat was 21 (range 4-35). Families with the highest number of species included Myrtaceae (33 species) and Fabaceae (19 species). *Melaleuca* and *Eucalyptus* were the best-represented genera throughout the Total Proposed Site Footprint, with 14 and 10 taxa recorded, respectively (ELA 2021a,b).

No flora species listed as Threatened under the EPBC Act or *Biodiversity Conservation Act 2016* (BC Act) have been recorded within the Total Proposed Site Footprint or Proposal Area. Five Department of Biodiversity, Conservation and Attractions (DBCA)-listed Priority 3 flora species have been recorded within the Total Proposed Site Footprint, with one, *Calectasia obtusa*, not appearing in the pre-survey database searches (ELA 2021a,b). Of these four species have been recorded within the Proposal Area:

- *Brachyloma mogin*
- *Leucopogon florulentus*
- *Leucopogon newbeyi*
- *Melaleuca polycephala*.

These species are discussed further in sections 3.2.1.1-3.2.1.4, and their locations are shown in Figure 6.

3.2.1.1. *Brachyloma mogin* (P3)

Brachyloma mogin is a compact shrub that grows to 0.4 m. It has small red/pink/white flowers in June (WAH 1998-2021 - although it was recorded in flower during the early September 2018 survey). It is usually found on grey clayey sand on swamp flats (WAH 1998-2021) and has an approximately 500 km distribution, from Boyagin Nature Reserve in the west to Esperance in the east (DBCA 2007-2021).

One individual was found within the Proposal Area, close to the northern boundary.

3.2.1.2. *Leucopogon florulentus* (P3)

Leucopogon florulentus is an erect, slender shrub that grows to between 0.3 m and 0.8 m high. It has white flowers from June to November. It is usually found on sandplains and gentle slopes in white/grey or yellow sand, sandy clay or gravelly lateritic soils (WAH 1998-2021). This species has been recorded from Wandering to Esperance, with most records concentrated within an approximately 40 km radius from Jerramungup (DBCA 2007-2021).

Three records occur within the Total Proposed Site Footprint, with one of these records containing five individuals occurring within the Proposal Area (ELA 2021a,b).

3.2.1.3. *Leucopogon newbeyi* (P3)

Leucopogon newbeyi is an erect shrub that grows to approximately 0.9 m high and 0.7 m wide. It produces small white flowers between June and September, with peak flowering in July and August. It is known only from the Western Mallee subregion and is restricted to a narrow north-south band from Nyabing to the south of Ongerup. It occurs low in the landscape as a component of the understorey of mallee woodland (commonly associated with various *Melaleuca* species), and in sandy loam soils, probably with clay at depth (Hislop 2012).

This Priority 3 species returned 39 records within the Total Proposed Site Footprint, composed of 474 individuals (ELA 2021a,b). Nine records occur within the Proposal Area.

3.2.1.4. *Melaleuca polycephala* (P3)

Melaleuca polycephala is a sparsely foliated, twiggy spreading shrub that grows 0.6-0.9 m high. It produces pink/purple flowers from September to November. It is found on sandy clay and clay soils in the Fitzgerald and Western Mallee subregions (WAH 1998-2021), from Lake Grace in the north to Lake Toolbrunup in the south (DBCA 2007-2021).

The cover species was recorded at a 0.5% cover throughout Vegetation Community 4 (Section 3.2.2.2; ELA 2021a), of which 4.2 ha is found within the Proposal Area (i.e., 26.5% of the Proposal Area). One additional record was observed in Vegetation Community 5 (ELA 2021b).

3.2.1.5. *Introduced flora species*

Four introduced (weed) species were recorded with the Total Proposed Site Footprint. None of these species are listed as Declared Plants in Western Australia according to the *Biosecurity and Agriculture Management Act 2007* or as Weeds of National Significance (ELA 2021a,b).

3.2.2. Vegetation

3.2.2.1. *Broad-scale regional vegetation*

Vegetation type and extent have been mapped at a regional scale by Beard (1980), who categorised vegetation into broad vegetation associations. Based on this mapping at a scale of 1:1,000,000, the Department of Primary Industries and Regional Development (DPIRD; previously, Department of Agriculture and Food Western Australia [DAFWA]) has compiled a list of vegetation extent and types across WA (Shepherd et al. 2002).

One Shepherd et al. (2002) vegetation association occurs within the Proposal Area, 'Mallee 1075'. In 2018, this vegetation association had less than 15% of its total pre-European extent remaining within

the Mallee IBRA bioregion and Western Mallee IBRA subregion (Government of Western Australia 2019; see Table 1).

Table 1: Beard (1980) / Shepherd et al. (2002) vegetation associations of the Proposal Area

Vegetation association	Description	Pre-European extent within the Mallee bioregion (ha)	2018 extent within the Mallee bioregion (ha)	Remaining (%)
Mallee 1075	Shrublands; mallee scrub, <i>Eucalyptus eremophila</i> & black marlock (<i>Eucalyptus redunca</i>)	517,041.34	73,513.35	14.22

3.2.2.2. Local vegetation

Five vegetation communities were identified in the Proposal Area (Figure 7; ELA 2021a,b):

- Vegetation Community 1: *Eucalyptus platypus* subsp. *platypus* and *Eucalyptus extensa* closed mallee forest (7.6 ha; 48.5% of the Proposal Area)
- Vegetation Community 2: *Eucalyptus phaenophylla* subsp. *phaenophylla*, *Eucalyptus captiosa* and *Eucalyptus uncinata* sparse mallee shrubland over *Melaleuca carrii* and *Leptospermum erubescens* sparse shrubland over *Gahnia* sp. South West (K.L. Wilson & K. Frank KLW 9266) and *Lepidosperma* sp. Bandalup Scabrid (N. Eveleigh 10798) sparse sedgeland (0.6 ha; 3.5% of the Proposal Area)
- Vegetation Community 3: *Eucalyptus thamnoides* subsp. *thamnoides* and *Eucalyptus phaenophylla* subsp. *phaenophylla* sparse mallee shrubland over *Melaleuca hamata*, *Melaleuca carrii* and *Gastrolobium crassifolium* open shrubland over *Lepidosperma* sp. Bandalup Scabrid (N. Eveleigh 10798) sparse sedgeland (1.8 ha; 11.2% of the Proposal Area)
- Vegetation Community 4: *Eucalyptus phenax* subsp. *phenax* and *Eucalyptus thamnoides* subsp. *thamnoides* sparse mallee shrubland over *Melaleuca?undulata* and *Melaleuca polycephala* sparse shrubland over *Gahnia ancistrophylla* and *Gahnia* sp. dull bases (K.R. Newbey 5111) sparse sedgeland (4.2 ha; 26.5% of the Proposal Area)
- Vegetation Community 5: *Eucalyptus thamnoides* subsp. *thamnoides* and *Eucalyptus phaenophylla* subsp. *phaenophylla* sparse mallee shrubland over *Melaleuca glaberrima*, *Melaleuca hamata* and *Melaleuca spathulata* open shrubland over *Gahnia ancistrophylla* and *Gahnia* sp. dull bases (K.R. Newbey 5111) isolated sedges (1.2 ha; 7.9% of the Proposal Area).

The remainder of the Proposal Area (0.4 ha; 2.4%) consisted of tracks cleared of vegetation.

None of these vegetation communities were considered to represent Commonwealth or State-listed Threatened or Priority Ecological Communities (TECs/PECs), based on the field surveys and database searches. An occurrence of the Eucalypt Woodlands of the Western Australian Wheatbelt ecological community (listed as Critically Endangered under the EPBC Act) is located within 0.4 km of the Proposal Area (ELA 2021a,b).

Environmentally Sensitive Areas (ESAs) are defined in the Environmental Protection (Environmentally Sensitive Areas) Notice 2005 under s 51B of the EP Act. ESAs include areas declared as World Heritage,

included on the Register of the National Estate¹, defined wetlands, and vegetation containing Threatened flora and TECs. There are no known occurrences of ESAs located with the Proposal Area (ELA 2021a).

3.2.2.3. Vegetation condition

Vegetation condition within the Proposal Area was classed based on the condition scale adapted from Keighery (1994) described in the EPA *Technical Guidance: Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA 2016). The majority of the Proposal Area was considered to be in Excellent condition (11.8 ha; 75.2% of the Proposal Area), the remainder in Very Good condition (1.6 ha; 10.1%), Good condition (1.6 ha; 10.3%) or Degraded condition (0.3 ha; 1.9%; Table 2; Figure 8).

A total of 0.4 ha (2.4% of the Proposal Area) was considered cleared of vegetation and primarily related to a vehicle track and a fence around the Existing Development Area. Other disturbances within the Total Proposed Site Footprint included infrastructure connected to the Existing Development Area, minor weed presence, dumped rubbish and effects from surface water sheet flow from the adjacent golf course in the northeast (ELA 2021a,b).

Table 2: Vegetation condition within the Proposal Area

Vegetation Condition	Area (ha)	Portion of Proposal Area (%)
Excellent	11.8	75.2
Very Good	1.6	10.1
Good	1.6	10.3
Degraded	0.3	1.9
Cleared	0.4	2.4
Total	15.7	100.0

¹Note the Register of National Estate was closed in 2007 and is no longer a statutory list. The Register of National Estate has been replaced by the National Heritage List under the EPBC Act.

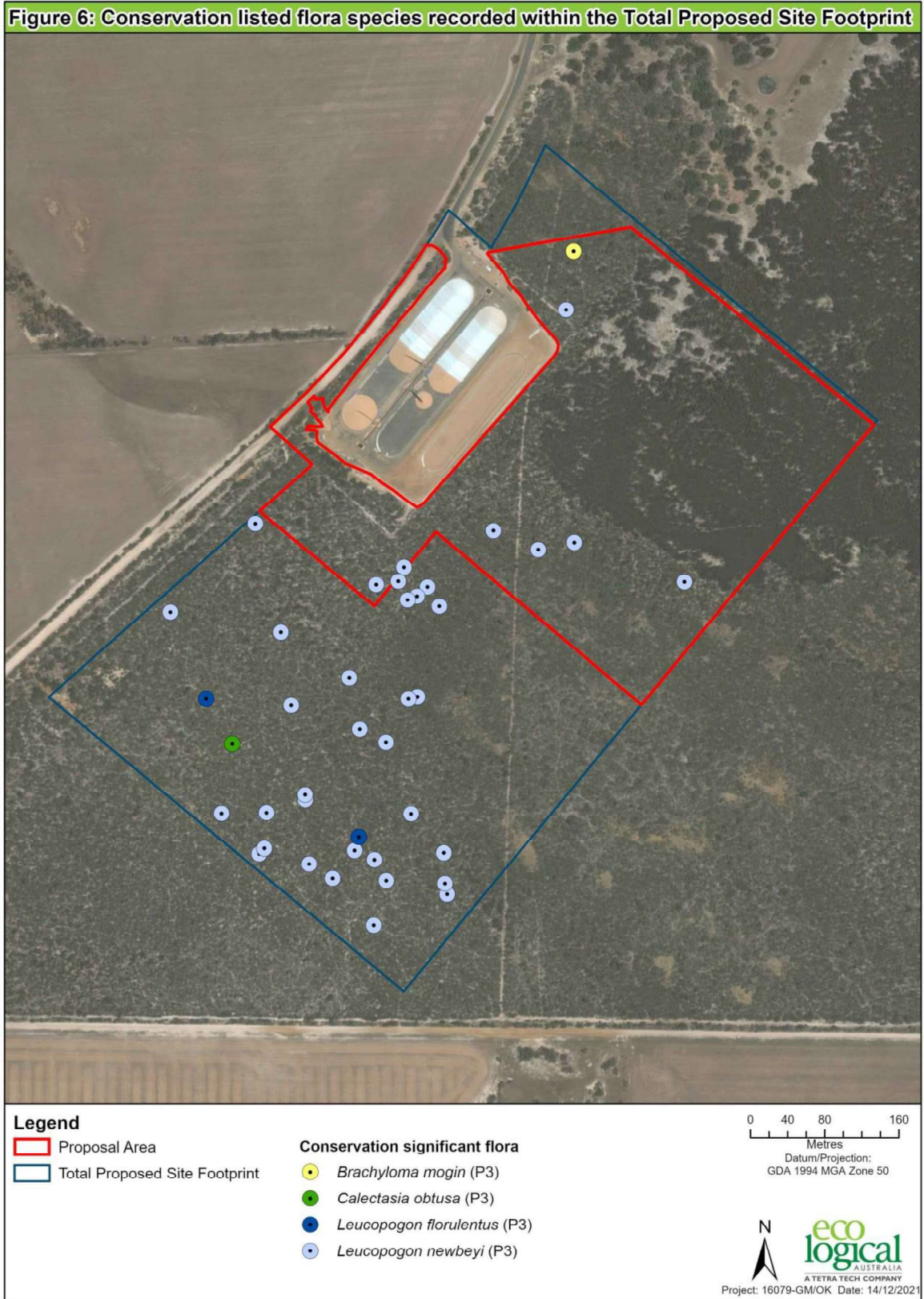


Figure 6: Conservation listed flora species recorded within the Total Proposed Site Footprint



Figure 7: Vegetation communities recorded within the Total Proposed Site Footprint



Figure 8: Vegetation condition recorded within the Total Proposed Site Footprint

3.3. Terrestrial Fauna

3.3.1. Terrestrial fauna habitat and species

There are two fauna habitats present within the Proposal Area (ELA 2021a,b; Figure 9):

- Closed mallee forest on light grey/brown sandy clay plain (7.6 ha)
- Open mallee woodland over mixed *Melaleuca* shrubland on light grey/brown sandy clay plain (7.7 ha).

Twenty-eight conservation-listed fauna species were identified in the desktop assessment as possibly occurring within the Proposal Area, of these (ELA 2021a,b):

- One species - the Malleefowl (*Leipoa ocellata*), listed as Vulnerable under the EPBC Act and BC Act - was assessed as likely to occur
- Four species were considered to have the potential to occur:
 - Red-tailed Phascogale (*Phascogale calura*; listed as Vulnerable under the EPBC Act and as Conservation Dependent under the BC Act)
 - Peregrine Falcon (*Falco peregrinus*; listed as Other Specially Protected Fauna under the BC Act)
 - Western Brush Wallaby (*Notamacropus irma*; listed as Priority 4 by DBCA)
 - Western Mouse (*Pseudomys occidentalis*; listed as Priority 4 by DBCA).

A total of 29 native fauna species were recorded within the Total Proposed Site Footprint, comprising 24 birds, three mammals and two reptiles (ELA 2021a,b). Three introduced fauna species were recorded within the Total Proposed Site Footprint, the European rabbit (*Oryctolagus cuniculus*), Feral Cat (*Felis catus*) and Red Fox (*Vulpes vulpes*).

No Threatened fauna species listed under the EPBC Act, BC Act and/or Priority listed by DBCA were recorded (ELA 2021a,b).

The five conservation-listed species considered likely or as having the potential to occur are discussed further in Sections 3.3.1.1 to 3.3.1.5. The remaining 23 conservation-listed species were determined to be unlikely to occur. This assessment was based on the availability of suitable habitat, the proximity of previous records and adequate survey effort (ELA 2021a).

3.3.1.1. Malleefowl

The Malleefowl is a large (2 kg) native bird of the family Megapodiidae and inhabits semi-arid to arid shrublands and thicket vegetation dominated by mallee and/or *Acacia*, preferably with sandy soil and an abundance of leaf litter. It builds large characteristic nests (mounds) to incubate its eggs (Benshemesh 2007; Short and Parson 2008).

In Western Australia, the range of the Malleefowl spans most of the southern half of the State and includes much of the Wheatbelt. Malleefowl were historically found in most Wheatbelt vegetation communities (Short and Parson 2008). The majority of records of Malleefowl in south-west Western Australia fall within the Avon Wheatbelt, Mallee, and Esperance Plains IBRA regions (Short and Parson 2008). Malleefowl tend to occur in vegetation remnants that have a higher density of tall shrubs (>1.5 m) and contain a greater amount of litter and food shrubs such as *Acacia* and *Gastrolobium* in comparison

to remnants found not to contain Malleefowl (Short and Parson 2008). Research suggests that Malleefowl can move between vegetation remnants separated by distances less than 5 km (Short and Parsons 2008).

Targeted searches for Malleefowl did not identify any evidence (birds or secondary signs) within the Proposal Area. Twenty-two Malleefowl records (including secondary signs) have occurred within 20 km of the Proposal Area since 2000 (DBCA 2018). The closest reliable wild record is 8.7 km from the Proposal Area (DBCA 2018), with no records in proximity to the Ongerup townsite despite a higher potential for opportunistic sightings due to the presence (and presumed elevated interest given the Yongergnow Malleefowl Centre is located in Ongerup) of town residents. The targeted searches for signs of Malleefowl, such as birds, mounds, tracks and scats, were undertaken in areas of suitable habitat in September 2018 (ELA 2021a) and October 2020 (ELA 2021b), in accordance with the EPBC Act *Survey guidelines for Australia's threatened birds* (DEWHA 2010). The two previous survey reports (ELA 2021a,b) refer to the closest known records, from NatureMap (DBCA 2007-2021), being within 1 km of the Proposal Area within the same vegetation remnant; however, upon further investigation, two of these records relate to specimens stored or displayed at the Ongerup Yongergnow Malleefowl Centre. Two other records are from 2014 and 2015. The 2014 record is described as a 45 minute search that encountered six birds, with the location described as the 'Malleefowl research centre'. Given the number of individuals encountered, this survey is expected to have been undertaken inside the fenced 5 ha Yongergnow Sanctuary (or the two associated aviaries). The 2015 record is an observation of a live individual from a targeted search undertaken adjacent to the Yongergnow Malleefowl Centre, 1.4 km from the Proposal Area. However, there is uncertainty associated with these DBCA NatureMap records as they were not included in the DBCA Threatened Fauna Database Search data (DBCA 2018; considered more accurate than the NatureMap records) purchased for the assessment. These records have therefore been discounted, with the wild record, 8.7 km from the Proposal Area, considered the closest and most reliable (Figure 10).

The Proposal Area is considered to represent only marginal potential breeding habitat despite a total of 15.3 ha of suitable Malleefowl foraging habitat, consisting of mallee vegetation over sandy substrate (both described fauna habitats are considered suitable habitat), occurring in the Proposal Area (Plate 1 and Figure 9). This is due to no observations of the species, a lack of evidence of any current or past breeding activities and the low levels of leaf litter available to be utilised for mound building (ELA 2021a,b).

Although only marginal breeding habitat occurs in the Proposal Area, given the presence of suitable foraging/dispersal habitat, the proximity of nearby records, and the mobile nature of this species, Malleefowl are likely to occur within the Proposal Area on an occasional foraging or dispersal-only basis.



Plate 1: Open mallee woodland (left) and closed mallee forest (right) within the Proposal Area.

3.3.1.2. Red-tailed Phascogale

The Red-tailed Phascogale is a small, arboreal, carnivorous marsupial that occurs in remnant vegetation in the southern wheatbelt of Western Australia, with mean annual rainfall ranging from 300–600 mm (Short and Hide 2012; Van Dyck et al. 2013). Its core range stretches 150 km in a north-south direction from Brookton to Katanning and about 80 km wide from Williams to Dumbleyung. Outlying records extend the distribution of this species to the west to the margin of the Jarrah forest (Dwellingup) and the east to Hyden and Newdegate, and Bremer Bay on the south coast (Short and Hide 2012). Ongerup is located outside the species' core range but within its known distribution, approximately 70 km from the south coast.

There are two Red-tailed Phascogale records within 20 km of the Proposal Area to the south-east in Mills Lake. Both are deceased individuals recorded on private property in 2004 (DBCA 2018).

While the species is largely confined to woodlands with old-growth hollow-producing eucalypts, it has also been recorded in shrublands and various mosaics of woodland, shrubland and scrub-heath, particularly on the periphery of its current range (Short and Hide 2012). The vegetation within the Proposal Area consists of closed mallee forest and open mallee woodland habitats. The presence of tree hollows for nesting is a key factor limiting Red-tailed Phascogale persistence. The recent absence of Red-tailed Phascogale from nature reserves in the Mallee bioregion is hypothesised to be largely due to a scarcity of suitable hollows (Short and Hide 2012). Red-tailed Phascogale are typically (but not always) absent from vegetation dominated by eucalypt species with few or no hollows such as mallee, and shrubland and heath vegetation. However, it should be noted that little is known of the ecology of Red-tailed Phascogales in these habitats (Short et al., 2011). Short and Hide (2012) hypothesise that the occasional sightings and specimens within the Mallee bioregion may be linked to the limited areas of remnant hollow-producing eucalypt woodland remaining after land clearing for agriculture.

Given the Proposal Area is within the distribution of the Red-tailed Phascogale, the presence of 15.3 ha of suboptimal (i.e., non-breeding) habitat within the Proposal Area (Figure 9; both fauna habitat types are considered potential habitat) and two Red-tailed Phascogale records within 20 km, this species is considered to have the potential to occur within the Proposal Area. Targeted surveys (i.e., Elliott trapping) have not been undertaken for this species within the Proposal Area to determine the current presence or perceived absence. In the absence of hollow-bearing trees, the primary value of the habitat

within the Proposal Area lies in providing foraging opportunities and facilitating dispersal into adjacent areas of remnant vegetation.

3.3.1.3. Peregrine Falcon

The Peregrine Falcon is a large bird of prey. It is found throughout WA, from the south near Albany to the north near Kununurra (DBCA 2007-2021). Whilst considered uncommon, it is widespread across Australia and occurs across all continents (PaWST 2011). The Peregrine Falcon occupies various habitats, including inland cliffs, rocky outcrops and gorges, coastal cliffs and islands, open woodlands near water, and can also be found nesting on ledges of high city buildings (PaWST 2011).

The closest record of this species to the Proposal Area is 40 km away (DBCA 2007-2021). As the Peregrine Falcon may occasionally fly over or forage in the Proposal Area, it is considered to potentially occur. However, it is likely to be an infrequent visitor and is not considered dependent on the habitat in the Proposal Area.

3.3.1.4. Western Brush Wallaby

The Western Brush Wallaby is a crepuscular animal, unlike many macropod species, and is active mainly at dusk and dawn (Menkhorst and Knight 2009). It is herbivorous and feeds on many plant species, particularly *Carpobrotus edulis*, **Cynodon dactylon*, and *Nuytsia floribunda*.

The Western Brush Wallaby is found in the south-west of Western Australia, with its distribution ranging from Geraldton to Esperance (DBCA 2007-2021). The species is found in some areas of mallee and heathland but is generally uncommon in wet sclerophyll forests. It prefers tall open forests that supply adequate grazing and open, seasonally damp flat areas with low grasses and open scrubby brushes that allow it to move freely and speedily.

There are six records of Western Brush Wallaby within 20 km of the Proposal Area (DBCA 2007-2021). As there is potentially suitable habitat within the Proposal Area for this species, it is considered to have the potential to occur. However, the species can utilise a wide variety of habitats (woodland, mallee, heathland) and is not expected to depend on any of the habitats available within the Proposal Area if present (ELA 2021a).

3.3.1.5. Western Mouse

The Western Mouse is largely nocturnal and semi-arboreal and averages 34 g in size. It lives communally in burrows. This species prefers long unburnt habitat, including sparse low shrubland, tall dense shrubland, sparse to dense shrub mallee and mid-dense woodland on sandy clay loam or sandy loam (CALM 2002).

Based on fossil remains, this species was found along the Western Australian coast from Jurien Bay to Margaret River and across the Nullarbor Plain to the Eyre Peninsula in South Australia (CALM 2002). The current core distribution of the Western Mouse stretches from Cranbrook to Jerdacuttup and north to Kondinin (DBCA 2007-2021). There is a record of this species from 1995, 18 km from the Proposal Area (DBCA 2007-2021). As potentially suitable habitat is present, this Priority 4 species is considered to occur in the Proposal Area potentially.



Figure 9: Fauna habitats recorded within the Total Proposed Site Footprint

Figure 10: Malleefowl and Red-tailed Phascogale records in the vicinity of the Proposal Area (Source: DBCA 2018)

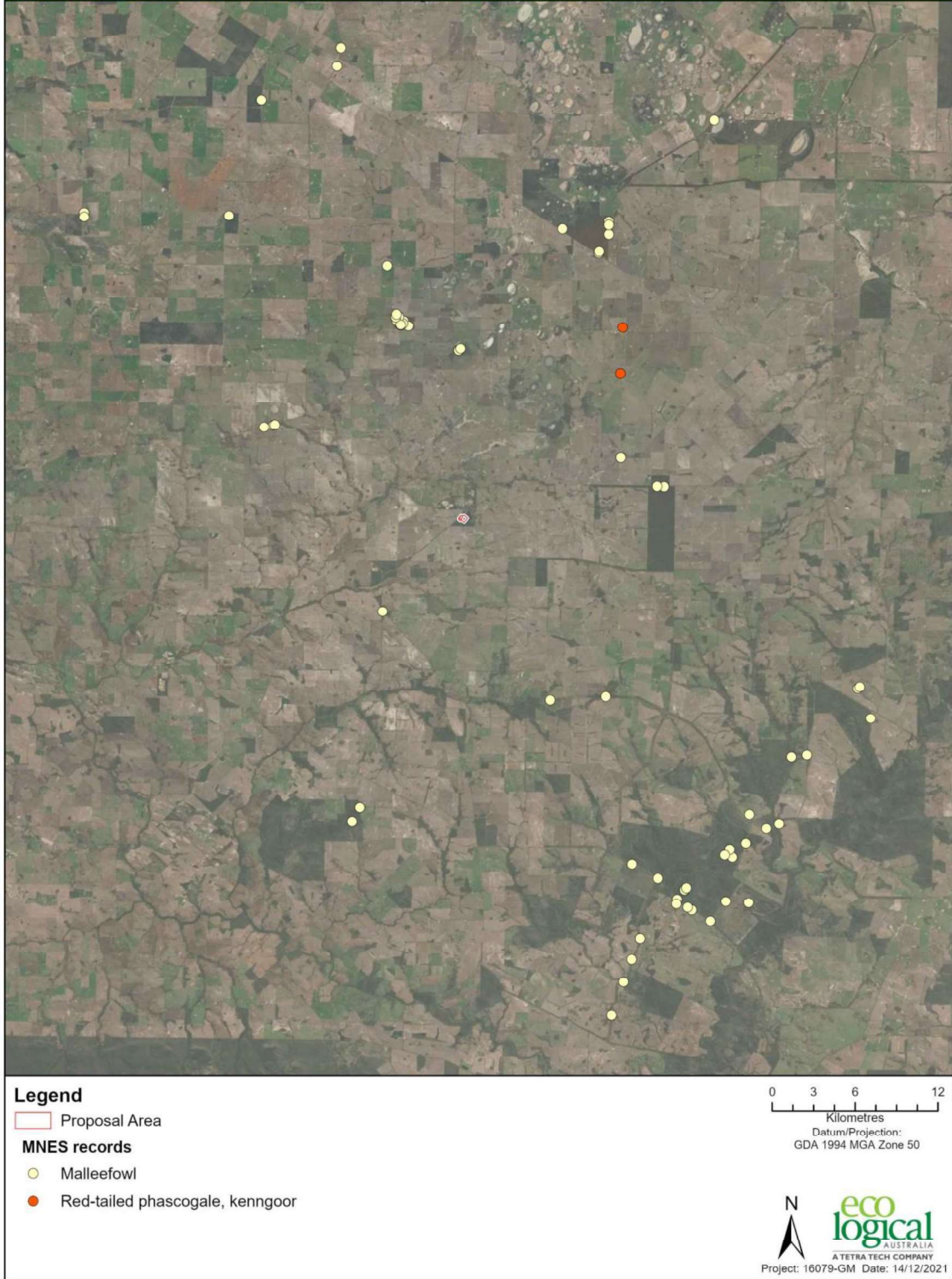


Figure 10: Malleefowl and Red-tailed Phascogale records in the vicinity of the Proposal Area

4. Clearing of native vegetation

Excluding activities that are exempt under Schedule 6 of the EP Act or s 5 (Prescribed Clearing) of the Environmental Protection (Clearing of Native Vegetation) Regulations 2004, all native vegetation clearing should be done in accordance with an NVCP.

4.1. Measures to avoid and minimise clearing

All practicable measures to avoid and minimise disturbance and clearing will be undertaken. Measures taken to avoid and minimise clearing and associated impacts include (but are not limited to):

- Reducing the Proposal Area from 35 ha to 15.7 ha by utilising the existing footprint to expand the site through higher density storage. Efficiencies have been achieved in the layout of new infrastructure by providing a compact arrangement that minimises wasted space and vegetation pockets.
- Situating the Proposal Area to reduce the impacts to the five Priority 3 flora species recorded within the Total Proposed Site Footprint where possible. The current Proposal Area avoids all *Calectasia obtusa*, two records of *Leucopogon florulentus*, 30 records of *L. newbeyi* and 2.2 ha of *Melaleuca polycephala* at 0.5% cover.
- Surveying for active Malleefowl mounds immediately before vegetation clearing, if clearing is undertaken during the breeding season (September-March). Given the available habitat is not appropriate for nesting, it is anticipated no mounds will be identified. However, if active mounds are present, vegetation clearing will not be undertaken within a 50 m radius of the mound until all chicks have departed the mound.
- Preparing a Construction Environmental Management Plan (CEMP) to manage the potential environmental impacts associated with clearing and construction.

The CEMP will include the management of potential threatening processes such as dust, erosion, waste and hazardous materials, noise and vibration, introduced flora and fauna species and disease to the adjacent vegetation. It will also detail native fauna management. To reduce the potential impact of the proposed action on wildlife, clearing will be undertaken progressively, in the direction of a vegetated boundary, to allow wildlife to move away from clearing activities into the surrounding remnant vegetation.

5. Assessment against the Ten Clearing Principles

A detailed assessment of the proposed vegetation clearing of up to 15.3 ha against the ten native vegetation Clearing Principles contained in Schedule 5 of the EP Act is provided in Sections 5.1 to 5.10. Table 3: contains a summary of the assessment.

The proposed clearing may be at variance with Clearing Principle e, with management and offset strategies proposed to mitigate the environmental impacts proposed.

Table 3: Summary of assessment against the ten clearing principles

Clearing Principle	Is not at variance	May be at variance
a) Native vegetation should not be cleared if it comprises a high level of biological diversity	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Native vegetation should not be cleared if it comprises the whole, or part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Native vegetation should not be cleared if it includes or is necessary for the continued existence of Rare flora	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Native vegetation should not be cleared if it comprises the whole, or part of, or is necessary for the maintenance of a threatened ecological community (TEC)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Native vegetation should not be cleared if it is significant as remnant vegetation in an area that has been extensively cleared	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Native vegetation should not be cleared if it is growing in or in association with an environment associated with a watercourse or wetland	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Native vegetation should not be cleared if the clearing of vegetation is likely to cause appreciable land degradation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Native vegetation should not be cleared if the clearing of vegetation is likely to cause, or exacerbate, the incidence of flooding	<input checked="" type="checkbox"/>	<input type="checkbox"/>

5.1. Comprises high level of biological diversity

Principle (a): Native vegetation should not be cleared if it comprises a high level of biological diversity.

A total of 149 plant taxa from 90 genera and 31 families were recorded across 16 quadrats established across the Total Proposed Site Footprint and from opportunistic collections. The average native perennial species richness per quadrat was 21 (range 4-35). Families with the highest number of species included Myrtaceae (33 species) and Fabaceae (19 species). *Melaleuca* and *Eucalyptus* were the best-represented genera throughout the Total Proposed Site Footprint, with 14 and 10 taxa recorded, respectively (ELA 2021a,b).

A likelihood of occurrence assessment undertaken prior to the field survey identified 49 conservation-listed flora species as possibly occurring within the Total Proposed Site Footprint (ELA 2021a). The field surveys did not identify any flora species listed as Threatened under the EPBC Act or BC Act within the Proposal Area. Five DBCA-listed Priority 3 flora species were recorded within the Total Proposed Site Footprint (including one species not identified during the likelihood of assessment), of which four species are located within the Proposal Area (ELA 2021a,b):

- *Brachyloma mogin*
- *Leucopogon florulentus*
- *Leucopogon newbeyi*
- *Melaleuca polycephala*.

The remaining 45 species were unlikely to occur in the Proposal Area (ELA 2021a,b).

A species accumulation curve determined that approximately 71.3% of the flora species potentially present were recorded during the ELA (2021a) survey. The number of quadrats established was considered sufficient to determine the vegetation community and to identify any vegetation of conservation significance. The sampling effort and survey timing were considered adequate.

Five *Eucalyptus* mallee vegetation communities were identified in the Proposal Area (ELA 2021a,b). None of these vegetation communities were considered to represent Commonwealth or State-listed TECs or PECs. The majority of the Proposal Area was considered to be in Excellent condition (11.8 ha; 75.2% of the Proposal Area), the remainder in Very Good condition (1.6 ha; 10.1%), Good condition (1.6 ha; 10.3%) or Degraded condition (0.3 ha; 1.9%). The remainder of the Proposal Area (0.4 ha; 2.4%) consisted of tracks cleared of vegetation.

A total of 29 native fauna species, consisting primarily of common bird species, were recorded within the Total Proposed Site Footprint. No Threatened fauna species listed under the EPBC Act, BC Act and/or Priority listed by DBCA were recorded (ELA 2021a,b). Of the 28 conservation-listed fauna species identified a desktop assessment as possibly occurring within the Proposal Area, one species was assessed as likely to occur, the Malleefowl. Four species were considered to have the potential to occur, the Red-tailed Phascogale, the Peregrine Falcon, the Western Brush Wallaby and the Western Mouse.

Overall, flora and fauna diversity in the proposed clearing area is not atypical of *Eucalyptus* mallee woodland/shrubland communities in the surrounding area. As such, the biological diversity within the proposed clearing area is not expected to be significantly affected, given the relatively small area

(15.3 ha) of vegetation proposed for clearing. Proposed clearing activities are, therefore, not at variance with this Principle.

5.2. Potential impact to any significant habitat for fauna indigenous to Western Australia

Principle (b): Native vegetation should not be cleared if it comprises the whole, or part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

There are two fauna habitats present within the Proposal Area, closed mallee forest on light grey/brown sandy clay plain (7.6 ha) and open mallee woodland over mixed *Melaleuca* shrubland on a light grey/brown sandy clay plain (7.7 ha). These habitats are primarily in Excellent to Good condition.

A total of 29 native fauna species were recorded within the Total Proposed Site Footprint, composed of 24 birds, three mammals and two reptiles (ELA 2021a,b). No fauna species are considered to rely solely on the habitats present in the Proposal Area for survival. There were no Threatened fauna species listed under the EPBC Act, BC Act and/or Priority listed by DBCA recorded during the field surveys (ELA 2021a,b); however, the Proposal Area contains 15.3 ha of potentially suitable habitat for five conservation listed fauna species considered likely or potentially to occur. These species are outlined below.

The vegetation within the Proposal Area is considered appropriate for Malleefowl (listed as Vulnerable under the BC Act) and Red-tailed Phascogale (listed as Conservation Dependent under the BC Act) foraging and/or dispersal activities, although unsuitable for breeding purposes. However, the effects of the Proposal on this habitat are not expected to cause significant impacts to either species (see Section 6.4 for a full assessment against the MNES significant impact criteria [DoE 2013]).

The Peregrine Falcon (listed as Other Specially Protected Fauna under the BC Act) may occasionally fly over or forage in the Proposal Area. However, it is likely to be an infrequent visitor and is not considered dependent on the habitat in the Proposal Area.

The Western Brush Wallaby (listed as Priority 4 by DBCA) has the potential to occur within the Proposal Area; however, this species is capable of utilising a wide variety of habitats (woodland, mallee, heathland) and, as such, is not expected to depend on any of the habitats available within the Proposal Area if present (ELA 2021a).

While there is potentially suitable habitat present with the Proposal Area for the Western Mouse (listed as Priority 4 by DBCA), this habitat is not considered significant to this species. Potential habitat will continue to be present adjacent to the Proposal Area.

The Proposal will remove approximately 15.3 ha of habitat for indigenous fauna species, including potential habitat for five conservation listed fauna species. However, as this habitat is not considered significant to the survival of any indigenous fauna species, the Proposal is not considered to be at variance with this Principle. Suitable fauna habitat will continue to persist within the Total Proposed Site Footprint and throughout the general Ongerup area.

5.3. Potential impact on any rare flora

Principle (c): Native vegetation should not be cleared if it includes or is necessary for the continued existence of Rare flora.

No flora species listed as Threatened under the EPBC Act or BC Act have been recorded within the Proposal Area.

Potential impacts to four DBCA-listed Priority 3 flora species recorded are discussed under Principle (a) as they are not listed as Rare flora.

As there are no known Rare flora species within the Proposal Area, the Proposal is not considered at variance with this Principle.

5.4. Potential of any threatened ecological communities

Principle (d): Native vegetation should not be cleared if it comprises the whole, or part of, or is necessary for the maintenance of a threatened ecological community (TEC).

There are no TECs listed under either the BC Act or EPBC Act present within the Proposal Area. Therefore, the clearing for the Proposal is not considered to be at variance with this Principle.

5.5. Significance as a remnant of native vegetation in the area that has been extensively cleared

Principle (e): Native vegetation should not be cleared if it is significant as remnant vegetation in an area that has been extensively cleared.

Five *Eucalyptus* mallee vegetation communities have been mapped within the Proposal Area (ELA 2021a,b). These vegetation communities are largely intact, with 85.3% of the vegetation described as in Excellent or Very Good condition.

The location of this vegetation is in Ongerup within the Shire of Gnowangerup and the Western Australian Great Southern region. Native vegetation within the Great Southern has been impacted by clearing for agriculture since European settlement.

Locally, the Proposal will not cause significant fragmentation of the native vegetation surrounding the Proposal Area due to its location on the edge of a vegetation remnant.

The State Government is committed to the National Objectives and Targets for Biodiversity Conservation (Commonwealth of Australia 2001) that includes a target that prevents clearance of ecological communities with an extent below 30% of that present before European settlement. As discussed in Section 3.2.2.1, the proposed clearing area intersects one vegetation association defined by Shepherd et al. (2002). Mallee 1075 (Shrublands; mallee scrub, *Eucalyptus eremophila* & black marlock [*Eucalyptus redunca*]) with a total regional and subregional extent of 73,513 ha in 2018, representing 14.22% of its original Pre-European extent (of 517,041 ha) (Government of Western Australia 2019). The extent proposed for clearing is 15.3 ha, representing a further reduction against its Pre-European extent of <0.01% (i.e., a negligible change - the extant total will remain at 14.22%, based on rounding).

Despite the negligible proportional change in extent resulting from the Proposal, as the regional and subregional extent of Mallee 1075 is already below 30% of its pre-European extent, the Proposal could be considered to be at variance with this Principle.

5.6. Impact on any watercourses and/or wetlands

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.

There are no watercourses, wetlands or riparian vegetation located within the Proposal Area or immediately adjacent. Therefore, the clearing for the Proposal is not considered to be at variance to this Principle.

5.7. Potential to cause appreciable land degradation

Principle (g): Native vegetation should not be cleared if the clearing of vegetation is likely to cause appreciable land degradation.

The removal of the vegetation and exposure of the in-situ clayey soils may result in severe shrink-swell related movements as a new equilibrium moisture profile is established within the Proposal Area (Galt Geotechnics 2020). The use of hydrated lime during construction will reduce the moisture sensitivity and reactivity of the clayey soils. The holes formed by the removal of trees and associated roots will also be backfilled with suitably moisture conditioned and compacted approved clayey fill (Galt Geotechnics 2020).

The removal of vegetation may also cause stormwater ponding on or near the surface due to the low permeability of the shallow clayey soils. However, water management infrastructure will be installed, surface and groundwater flows will be managed within the Proposal Area to avoid pooling of water and flooding and to ensure adequate drainage to designated areas.

The Proposal is not expected to result in severe water logging, land degradation, water or wind erosion within the proposed clearing area or immediate surroundings following management measures. The Proposal is not expected to be at variance to this Principle.

5.8. Potential to impact on the environmental values of adjacent or nearby conservation areas

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 Proposal is not close to any conservation areas; Toompup Nature Reserve, an 'A' Class reserve, is the closest, located 5 km south-west of the Proposal.

The Proposal is not anticipated to impact the environmental values of nearby conservation areas; thus, the Proposal is not considered to be at variance with this Principle.

5.9. Potential deterioration in the quality of surface or underground water

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.

There are no surface water features present within the Proposal Area; however, swale drains are located around the perimeter of the existing Grain Receival Site that can contain standing water (Galt Geotechnics 2020). The depth to groundwater is unknown; however, groundwater was not encountered in any geotechnical test pits (maximum pit depth 2.6 m). Perched groundwater is likely to develop on shallow rock and clayey soils during the wetter times of the year within the Proposal Area due to the low permeability of these materials (Galt Geotechnics 2020).

Suitable management measures will be implemented to maintain and manage surface and groundwater quality to predevelopment expectations. The management of water quality and hydrocarbon and chemical storage will be consistent with 'AS 1940:2017 Storage and handling of flammable and combustible liquids', and the CBH Environmental Management Standard (Appendix D) which outlines minimum requirements for water quality, management of spills, and other mandatory water management measures that must be implemented.

The proposed clearing of 15.3 ha of native vegetation is not expected to cause the deterioration of surface or underground water quality; thus, the Proposal is not considered to be at variance to this Principle.

5.10. Potential of clearing to cause, or exacerbate, the incidence of flooding

Principle (j): Native vegetation should not be cleared if the clearing of vegetation is likely to cause, or exacerbate, the incidence of flooding.

There are no surface water features or wetlands present within the Proposal Area or immediately adjacent. If surface water were present within the Proposal Area, it would flow north-westerly, reflecting the site topography. There is some evidence of surface water sheet flow from the adjacent golf course in the northeast of the Proposal Area (ELA 2021a,b), causing erosion and vegetation degradation in this area.

Swale drains are currently located around the perimeter of the existing Grain Receival Site to manage stormwater. After rainfall, surface water flows within the Proposal area will be similarly managed by installing drainage systems to avoid pooling of water and flooding and facilitate drainage into appropriate designated areas. The Proposal is not anticipated to cause or exacerbate flooding in vegetation adjacent to the Proposal Area.

The clearing for the Proposal is not considered to be at variance with this Principle.

6. Matters of National Environmental Significance

The EPBC Act provides a legal framework for the protection of MNES. The EPBC Act requires that all actions that will or may have a significant impact on an MNES must be referred to the Minister for the Environment via DAWE. Protected matters under the EPBC Act include:

- World heritage properties
- National heritage places
- Wetlands of international importance
- Listed threatened species and ecological communities
- Migratory species protected under international agreements
- Commonwealth marine areas
- A water resource, in relation to coal seam gas activities and large coal mining activities
- The Great Barrier Reef Marine Park
- Nuclear Actions including uranium mining.

In addition, protected matters include the environment where actions proposed will affect Commonwealth land or proposed actions are being undertaken by a Commonwealth agency.

6.1. Proposed action and assessment

The Proposal will involve the removal of 15.3 ha of vegetation to accommodate for the proposed expansion of the existing CBH facilities. For consistency with the EPBC Act, the Proposal is referred to as the 'proposed action' in this section of the NVCP, and the Proposal Area is the 'proposed action area'. Further information regarding the proposed action is presented in Section 1.

A summary of existing environmental values relating to MNES is provided in Section 3.

6.2. Controlled action provisions

The proposed action was referred to DAWE on 20 August 2021 (EPBC reference 2021/9029) and resubmitted with edits on 8 September 2021; and was determined to be a 'controlled action' with assessment required under the EPBC Act. The controlling provision was 'Listed Threatened Species and Ecological Communities' (ss 18 and 18A of the EPBC Act), namely:

- *Leipoa ocellata* (Malleefowl)
- *Phascogale calura* (Red-tailed Phascogale)

An assessment of the significant impacts to MNES has been undertaken based on the proposed action and is described in Section 6.4 below.

6.3. Potential impacts to listed threatened species and ecological communities

The proposed action has the potential to result in impacts to MNES include the following:

- Direct removal of 15.3 ha of potential foraging and dispersal habitat for the Malleefowl and Red-tailed Phascogale

- Direct impacts to fauna associated with injury and/or mortality from vegetation clearing and/or vehicle movements
- Indirect impacts associated with degradation of adjacent remnant vegetation from:
 - Introduction and/or spread of weed species or disease into vegetation adjacent to the proposed action area
 - Contamination of surface water and groundwater during construction and operation of the proposed expansion from hydrocarbons and dangerous goods.

6.4. Assessment of the significance of potential impacts

The following section provides an assessment of the significance of potential impacts against significant impact criteria. Two fauna species protected under the EPBC Act were identified as likely or having the potential to occur within the proposed action area:

- Malleefowl, listed as Vulnerable under the EPBC Act
- Red-tailed Phascogale, listed as Vulnerable under the EPBC Act.

6.4.1. Malleefowl

An assessment of the proposed action against the Significant Impact Criteria (DoE 2013) for the Malleefowl, listed as Vulnerable under the EPBC Act, is provided in Table 4. In light of this assessment and the proposed management measures, the proposed action is not anticipated to impact Malleefowl significantly.

Table 4: Assessment against the significant impact criteria (DoE 2013) for Malleefowl

Significant impact criteria	Assessment of impacts to Malleefowl
Potential to lead to a long-term decrease in the size of an important population	<p>The population of Malleefowl that may utilise the proposed action area is not considered an important population; therefore, it is considered unlikely the proposed action will cause a long-term decrease in the size of an important population of this species.</p> <p>There are no records of Malleefowl in the proposed action area, despite two surveys being undertaken (ELA 2021a,b). As there is no evidence the proposed action area is currently or historically used for breeding activities, removing this potential foraging and dispersal habitat is not expected to cause a long-term decrease in the local population. Remnant vegetation surrounds the proposed action area except for the north western boundary and could be utilised by Malleefowl upon removing the habitat within the proposed action area. Vegetation clearing will be undertaken progressively, in the direction of a vegetated boundary, to allow Malleefowl to move away from clearing activities into the surrounding remnant vegetation.</p>
Potential to reduce the area of occupancy of an important population	<p>There is no known population of Malleefowl within the proposed action area. The proposed removal of habitat will not be to the extent that will reduce the area of occupancy of an important population, were one to occur within the proposed action area, of this species.</p> <p>There are no records of Malleefowl within the proposed action area, with the nearest reliable record 8.7 km from it. Whilst suitable foraging/dispersal habitat comprises closed mallee forest and open mallee woodland, and there has been no evidence of the species utilising this habitat despite two surveys being undertaken. The proposed action will result in the clearing of 15.3 ha of potential foraging and dispersal habitat for the Malleefowl within its current known distribution. Based on the IUCN (2014) recommended grid size of 2 km x 2 km for estimating area of occupancy, the removal</p>

Significant impact criteria	Assessment of impacts to Malleefowl
	<p>of potential habitat (not currently known to be occupied) within the Proposal Area (approximately 0.5 km x 0.5 km) will not reduce the area of occupancy of the Malleefowl, and the species, if it occurs in the area, will be able to continue to access intact habitat adjacent to the Proposal Area.</p>
<p>Potential for fragmentation of an existing important population into two or more populations</p>	<p>The population of Malleefowl that may utilise the proposed action area is not considered an important population; therefore, the proposed action will not fragment an existing important population into two or more populations.</p> <p>Remnant vegetation surrounds the proposed action area on all sides except for the north western boundary, providing access for dispersal into adjacent areas of remnant vegetation to the south-west, north east and south-east. Malleefowl can also move between vegetation remnants separated by <5 km (Short and Parsons 2008), so they are less susceptible to the problems associated with fragmented habitat. Therefore, the removal of 15.3 ha of potential habitat will not cause the fragmentation of the local population into two or more populations.</p>
<p>Potential to adversely affect habitat critical to the survival of a species</p>	<p>The potential foraging and dispersal habitat present within the proposed action area does not classify as habitat critical to the species' survival; therefore, the proposed action is considered unlikely to affect critical habitat adversely.</p> <p>It is proposed a CEMP is prepared before the commencement of vegetation clearing and construction activities to reduce potential direct and indirect impacts to the environment, including surrounding remnant vegetation that constitutes potential Malleefowl habitat.</p>
<p>Potential to disrupt the breeding cycle of an important population</p>	<p>The population of Malleefowl that may utilise the proposed action area is not considered an important population. The proposed action is considered unlikely to disrupt the breeding cycle of this species.</p> <p>No active mounds have been recorded within the proposed action area, and the habitat is not considered suitable for mound-building (and, therefore, breeding) due to a lack of leaf litter. However, as a precaution, the Proposal Area will be surveyed for active Malleefowl mounds immediately before vegetation clearing if clearing is undertaken during the breeding season (September to March; Benshemesh 2007). If active mounds are present, clearing will not be undertaken within a 50 m radius of the mound until all chicks have departed the mound.</p>
<p>Potential to modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline</p>	<p>It is considered unlikely that clearing the potential habitat within the proposed action area will result in a species decline within the local area as similar habitat is found near the proposed action area.</p> <p>The proposed action will remove 15.3 ha of suitable foraging and dispersal habitat for Malleefowl. However, given the high mobility of the species (discrete areas of habitat within 5 km are considered close enough to be utilised by the same Malleefowl population), the occurrence of the species in areas outside those to be impacted, and the availability of suitable habitat within the surrounding area, the proposed action is unlikely to affect habitat to the extent that the species is likely to decline in the local area.</p>
<p>Potential for the establishment of invasive species in the vulnerable species' habitat that are harmful to the vulnerable species</p>	<p>The proposed action is considered unlikely to cause the establishment of new invasive species that are not already present in the surrounding local area.</p> <p>Feral cats, foxes and rabbits are already known to be present in the proposed action area.</p> <p>Management measures (to be detailed in a CEMP) such as vehicle hygiene and waste management will be implemented to minimise the risk of introducing invasive species across the proposed action area and the surrounding vegetation during construction.</p>

Significant impact criteria	Assessment of impacts to Malleefowl
Potential for the introduction of disease that may cause the species to decline	<p>Disturbance from the proposed action is considered unlikely to introduce diseases that may cause the species to decline.</p> <p>There is no information on diseases in wild Malleefowl populations, although captive populations are susceptible to a range of common diseases (Benshemesh 2007). There are no known diseases in the area. Management measures such as vehicle and machinery hygiene will be implemented to minimise the risk of introducing soil-borne disease within the Proposal Area or immediate surroundings. Pet animals will not be allowed on-site during vegetation clearing.</p>
Potential substantial interference with the recovery of the species	<p>The proposed action is not expected to interfere with the recovery of Malleefowl substantially.</p> <p>The proposed action area is unlikely to be chosen as a site for the reintroduction of the Malleefowl, as the habitat is not suitable for breeding due to a lack of leaf litter and is unlikely to maintain an on-going population without a source population from other areas.</p> <p>Whilst the proposed action will result in the removal of potential foraging and breeding habitat for Malleefowl, this is unlikely to interfere with the recovery of the species given that the species is mobile and able to utilise a variety of habitats available within the wider area.</p>

6.4.2. Red-tailed Phascogale

An assessment of the proposed action on Red-tailed Phascogale against the Significant Impact Guidelines (DoE 2013) is found in Table 5. In light of this assessment and the proposed management measures, the proposed action is not anticipated to impact the Red-tailed Phascogale significantly.

Table 5: Assessment against the significant impact criteria (DoE 2013) for Red-tailed Phascogale

Significant impact criteria	Response
Potential to lead to a long-term decrease in the size of an important population of a species	<p>The population of Red-tailed Phascogale that may utilise the proposed action area is not considered an important population; therefore, it is unlikely the proposed action will cause a long-term decrease in the size of an important population of this species.</p> <p>Regardless of the potential occurrence of the species, given the proposed action area is not very suitable for breeding activities. Due to the lack of tree hollows, removing this potential foraging and dispersal habitat is not expected to cause a long-term decrease in the local population. Remnant vegetation surrounds the proposed action area except for the north western boundary. Red-tailed Phascogale could utilise it upon the removal of the habitat within the Proposal Area.</p>
Potential to reduce the area of occupancy of an important population	<p>The population of Red-tailed Phascogale that may utilise the proposed action area is not considered an important population; therefore, it is unlikely the proposed action will reduce the area of occupancy of an important population of this species.</p> <p>The proposed action will clear 15.3 ha of potential foraging and dispersal habitat for the Red-tailed Phascogale within its current known distribution. Based on the IUCN (2014) recommended grid size of 2 km x 2 km for estimating the area of occupancy, the removal of potential habitat (not currently known to be occupied) within the proposed action area (approximately 0.5 km x 0.5 km) will not reduce the area of occupancy of the Red-tailed Phascogale. If it occurs in the area, the species will continue to access intact habitat adjacent to the proposed action area.</p>

Significant impact criteria	Response
Potential to fragment an existing important population into two or more populations	<p>The population of Red-tailed Phascogale that may utilise the proposed action area is not considered an important population; therefore, the proposed action will not fragment an existing important population into two or more populations.</p> <p>Remnant vegetation surrounds the proposed action area except for the north western boundary, providing access for dispersal into adjacent areas of remnant vegetation to the south-west, north-east and south-east. Therefore, the removal of 15.3 ha of potential habitat will not cause the fragmentation of the local population into two or more populations.</p>
Potential to adversely affect habitat critical to the survival of a species	<p>The potential foraging and dispersal habitat present within the proposed action area does not classify as habitat critical to the species' survival; therefore, the proposed action is considered unlikely to affect critical habitat adversely.</p> <p>It is proposed a CEMP is prepared before the commencement of vegetation clearing and construction activities to reduce potential direct and indirect impacts to the environment, including surrounding remnant vegetation that constitutes potential Red-tailed Phascogale habitat.</p>
Potential to disrupt the breeding cycle of an important population	<p>The population of Red-tailed Phascogale that may utilise the proposed action area is not considered an important population. The proposed action is considered unlikely to disrupt the breeding cycle of this species.</p> <p>Red-tailed Phascogale breeding activities are unlikely to occur within the proposed action area due to a lack of tree hollows utilised for nesting.</p>
Potential to modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline	<p>It is considered unlikely that clearing the potential habitat within the proposed action area will result in a species decline within the local area as similar habitat is found near the proposed action area.</p> <p>The proposed action will result in clearing up to 15.3 ha of suitable foraging and dispersal habitat for Red-tailed Phascogale; however, similar habitat occurs in adjacent areas.</p>
Potential for the establishment of invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat	<p>The proposed action is considered unlikely to cause the establishment of new invasive species that are not already present in the surrounding local area.</p> <p>Feral cats, foxes and rabbits are already known to be present in the Proposed Action Area.</p> <p>Management measures (to be detailed in a CEMP) such as vehicle hygiene and waste management will be implemented to minimise the risk of introducing invasive species across the Proposal Area and the surrounding vegetation during construction.</p>
Potential for the introduction of a disease that may cause the species to decline	<p>Disturbance from the proposed action is considered unlikely to introduce disease that may cause the species to decline.</p> <p>Diseases are not an identified threat to the Red-tailed Phascogale, and there are no known diseases in the area. Management measures such as vehicle and machinery hygiene will be implemented to minimise the risk of introducing soil-borne disease within the proposed action area or immediate surroundings. Pet animals will not be allowed on-site during vegetation clearing.</p>
Potential substantial interference with the recovery of the species.	<p>The proposed action is not expected to interfere with the recovery of Red-tailed Phascogale substantially.</p> <p>The proposed action area is unlikely to be chosen as a site for reintroducing the Red-tailed Phascogale, as the habitat is not very suitable for breeding activities and is unlikely to maintain an on-going population without a source population from other areas.</p>

6.5. Alternatives to the proposed action

CBH has explored locations on parcels of farming land mostly cleared of native vegetation close to the existing Ongerup or Borden sites to continue using existing infrastructure. CBH presented formal offers to purchase land to landowners at three sites:

1. Part Lot 378 on DP 80361 Buncle St, Ongerup
2. Part Lot 869 on DP 201846 Buncle St, Ongerup
3. Part Lot 9001 on DP 67780 Magitup Road, Borden.

The landowner for Options 1 and 2 have been adamant that they are unwilling to sell farmland to CBH at a reasonable commercial land price over a two-year period. Option 3 was also ruled out as the landowner is unwilling to sell cleared land to CBH for the Borden expansion.

6.6. Proposed management for MNES

Management of the environmental impacts of clearing native vegetation within the proposed action area has been assessed against the mitigation hierarchy of avoid, mitigate, rehabilitate and offset. Alternatives to the proposed action area have been assessed, as above, to avoid the required clearing of the proposed action area; however, it has been determined none of these options were viable. Thus, mitigation measures have been developed to reduce the effects of the environmental impacts.

Environmental impacts were minimised by reducing the Proposal Area and utilising the existing footprint to expand the site through higher density storage. The initial clearing requirement was approximately 35 ha; this has been reduced to 15.3 ha, the minimum sufficient storage capacity to cater to future requirements. CBH has achieved efficiencies in the layout of new infrastructure by providing a compact arrangement that minimises wasted space and vegetation pockets.

The main environmental impact of the proposed action will be the direct loss of vegetation and fauna habitat within the proposed action area. A summary of residual impacts to MNES following implementation of management and mitigation measures is presented in Table 6.

6.6.1. Malleefowl

The proposed action will remove up to 15.3 ha of potential foraging and dispersal habitat for Malleefowl. The proposed action is not expected to cause a significant impact on an important population. Despite this predicted outcome, the Proponent commits to implementing a CEMP including the following management measures to ensure that potential impacts are avoided and minimised:

- Undertake progressive clearing in the direction of a vegetated boundary to allow Malleefowl and other wildlife to move away from clearing activities into the surrounding remnant vegetation
- Undertake a pre-clearance survey for active Malleefowl mounds before clearing works if undertaken during the Malleefowl breeding season (September-March; Benshemesh 2007). Given the available habitat is not appropriate for nesting, it is anticipated no mounds will be identified. However, if active mounds are present, clearing will not be undertaken within a 50 m radius of the mound until all chicks have departed the mound.

- Implementation of the CEMP will also ensure that any indirect impacts to surrounding Malleefowl habitat, such as habitat degradation associated with edge effects, increased dust, introduction or spread of weeds and/or altered fire regimes, are also minimised.

6.6.2. Red-tailed Phascogale

The proposed action will result in the removal of 15.3 ha of potentially suitable foraging and dispersal habitat for Red-tailed Phascogale. To reduce the potential impact of the proposed action on the Red-tailed Phascogale, clearing will be undertaken progressively, in the direction of a vegetated boundary, to allow Red-tailed Phascogale and other wildlife to move away from clearing activities into the surrounding remnant vegetation. This management measure will be detailed within a CEMP.

Table 6: Summary of residual impacts to MNES following implementation of management and mitigation measures

Potential impact	Avoidance	Minimisation	Rehabilitation	Residual impact
Loss of fauna habitat (including foraging and dispersal habitat)	The proposed action area has been redesigned to reduce the clearing of native vegetation from approximately 35 ha to 15.3 ha, representing a 56.3% reduction in disturbance footprint.	<p>Measures to minimise the impacts to vegetation will be detailed in a CEMP which will include:</p> <ul style="list-style-type: none"> The proposed action area will be demarcated to prevent clearing outside of approved areas Manage indirect impacts such as dust to surrounding vegetation Measures will be implemented to prevent the distribution of weed species off-site and prevent the introduction of <i>Phytophthora</i> dieback to the surrounding vegetation. 	Not applicable.	Removal of 15.3 ha of potential Malleefowl and Red-tailed Phascogale foraging and dispersal habitat.
Injury/mortality of fauna species associated with vegetation clearing or vehicle movements	A pre-clearance survey for evidence of Malleefowl breeding will be undertaken before clearing works commence. Clearing will not commence in a 50 m radius from an active mound until young have departed the nest, avoiding impacts to these individuals.	<p>Implementation of a CEMP that will include the following measures:</p> <ul style="list-style-type: none"> Conducting clearing activities at the appropriate time of year to minimise effects to MNES fauna species Undertake progressive clearing to allow fauna to move away from clearing activities Ensure a trained fauna handler is on-site at all times to handle and relocate fauna Accurately delineating the approved clearing boundary to provide accuracy to the limits of the allowable clearing lines Further contingency measures to be developed in consultation with DBCA and implemented to avoid or minimise impacts to significant fauna if identified during searches 	A wildlife carer, where practical, will rehabilitate fauna injured during fauna habitat clearing.	Loss of fauna individuals during the clearing of fauna habitat.

Potential impact	Avoidance	Minimisation	Rehabilitation	Residual impact
Degradation of habitat from introduction of dieback caused by <i>Phytophthora cinnamomi</i> (and other plant diseases), weed invasion leading to local hydrological changes	Not applicable.	Measures to minimise the impacts to vegetation will be detailed in a CEMP, which will require all personnel to complete a site induction that will include hygiene training regarding weed and disease management requirements.	Not applicable.	Potential residual impacts are as low as reasonably practicable.
Contamination of surface water/groundwater impacting on adjacent vegetation	Not applicable.	<p>Minimise the access to standing water on-site to reduce fauna interactions</p> <p>Implementation of the CEMP to minimise the risk of contamination, including:</p> <ul style="list-style-type: none"> • Installation of drainage diversion around chemical storage areas • Implementation of drainage controls to prevent off-site discharge of runoff • Spill response procedures and training • Storage of fuels or chemicals in bunds capable of storing 110% of the capacity of the largest storage tank • Secondary spill containment around tanks (with a perimeter bund) with sufficient freeboard capacity to contain all captured rainwater from a 20-year average return interval, 72-hour storm • Spill kits are located in storage and refuelling areas. 	Not applicable.	<p>Potential residual impacts are as low as reasonably practicable.</p> <p>Contamination risk is managed with no significant residual impact on flora or vegetation.</p>

7. Offsets

This section represents a preliminary offsets strategy, summarising the Proposal's significant residual impacts and proposed offsets. As this NVCP considers impacts to values under both the EP Act and the EPBC Act, requirements for offsets for those impacts are considered under WA, and Commonwealth offsets policies as applicable, specifically:

- WA Environmental Offsets Policy (Government of Western Australia 2011)
- EPBC Act Environmental Offsets Policy (Australian Government 2012).

If required, a final Environmental Offsets Strategy will be prepared as a standalone document following issue of conditions of approval for the Proposal.

7.1. Significant residual impacts

Environmental offsets will only be applied where residual impacts are determined to be significant after avoidance, minimisation, and rehabilitation have been pursued (Australian Government 2012; Government of Western Australia 2014). Following the implementation of mitigation measures outlined in Table 6, offsets may be required for the Malleefowl and Red-tailed Phascogale.

The environmental offsets proposed will be following State (Government of Western Australia 2014) and Commonwealth offset guidelines (DSEWPaC 2012b), including relevant associated calculation tools, and will also take into consideration that the MNES species will continue to persist within the Ongerup locality (if currently present) and within the wider region.

Significant residual impacts for environmental values recognised under WA policy will be determined after applying the following:

- WA Offsets Template accompanying the WA Environmental Offsets Guidelines (Government of Western Australia 2014)
- Residual Impact Significance Model accompanying the WA Environmental Offsets Guidelines (Government of Western Australia 2014).

Significant residual impacts for environmental values recognised under Commonwealth policy will be determined after applying the following:

- Commonwealth Offsets Assessment Guide (DSEWPAC 2012b)
- Commonwealth Significant Impact Guidelines 1.1 (DoE 2013).

7.2. Preliminary offset options

The current proposed offset strategy is to provide funds to DBCA or DWER for either department to acquire suitable land near Ongerup that is currently in unprotected tenure or zoning (e.g., freehold land zoned for general agriculture). On-site offsets within the Proposal Area will also be considered, as well as rehabilitation. The land acquired will either be vested with the Conservation and Parks Commission of Western Australia or have a conservation covenant placed on the land, securing it in perpetuity for conservation purposes. This strategy is preferred as it is believed the selection and management of the offset site by a government environmental agency will provide the best outcome for the environment. Low-intensity management of the offset site is proposed to be undertaken by DBCA (subject to future

negotiations), such as the maintenance of fence and firebreaks, with the current habitat values/community condition maintained.

Following discussions with DBCA (Errington A, pers. comm., multiple dates 2019), preliminary investigations were undertaken in October 2019 at four potential offsets sites indicated by DBCA as potentially suitable for the required values and land acquisition. These sites are no longer being considered as potential offset sites, as they are not deemed suitable and since then five more alternative potential offset sites have been identified by DBCA (Zhang L, pers. comm., July 2021).

Reconnaissance surveys (based on either visual [i.e. roadside observation and drone video] and in-field site observations depending on accessibility) at the five recently identified sites were undertaken by Eco Logical Australia in October 2021. These offsets sites were assessed for their potential to contain a range of ecological values applicable to a number of CBH Projects (not just this Proposal). These included Wheatbelt Woodlands TEC, Carnaby's Cockatoo habitat, Malleefowl habitat, Red-tailed Phascogale habitat and Red Morrel. Preliminary results have showed promise, particularly with respect to Wheatbelt Woodlands TEC, with some potential also regarding Carnaby's Cockatoo and Malleefowl habitats. The sites appear to have less potential with respect to Red Morrell and Red-tailed Phascogale and further work is expected to identify offset sites and opportunities for these species. CBH is committed to continued engagement with DBCA and DWER/DAWE to identify and secure suitable offsets for all the key values, including for example the implementation of rehabilitation and revegetation programs and contribution to research programs. With respect to the five current potential sites, DBCA and CBH have commenced further inquiries with landowners, including undertaking land valuations (with one site valued to date) in anticipation of potential acquisition.

8. Stakeholder consultation

Stakeholder consultation will be required before native vegetation clearing and the implementation of the Proposal. Local community members have been consulted about the Proposal and kept updated on the expansion plan at CBH Harvest meetings on 27 February 2019, 26 February 2020 and 17 February 2021.

An application for Development Approval will be submitted to the Shire of Gnowangerup during 2022. Consent to operate the existing Ongerup Grain Receiving Site and its expansion are subject to a 21-year Crown lease of Lot 500 from the Department of Planning, Lands and Heritage (DPLH) expiring 6 April 2032. Under the Shire of Gnowangerup Local Planning Scheme No. 2 (District Scheme), the Proposal Area is listed under the Local Scheme Reserves for Public Purposes (Water). CBH engaged with Water Corporation, which supported and divested a portion of Reserve 15650 held under its Management Order back to the State for the purposes of amalgamating the additional land with CBH's existing site to form what is now known as Lot 500 held under lease by CBH. A Lease and Amalgamation Order (Landgate #0184669) was registered at Landgate by DPLH on 1 July 2019 for the land to be included within the existing Ongerup Grain Receiving Site Lease (Lease #L599733) as noted on the current property title LR3170/818.

There are no known significant Aboriginal heritage values present within the Proposal Area. The closest Registered Aboriginal Sites are located 6.0 km south-west of the Proposal Area, within Toompup Nature Reserve. Toompup Burial 1 and Toompup Burial 2 sites (Registered Site IDs 596 and 597) are characterised as skeletal material/burial sites (DPLH 2021). The Proposal Area is within the Wagyl Kaip & Southern Noongar Indigenous Land Use Agreement area (National Native Title Tribunal No WI2017/014). An Aboriginal Heritage Consultant will be contacted for further advice, including to ensure any appropriate consultation and survey works are undertaken.

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