

Environmental Assessment

Symes Find Project

Clearing Permit Application

L77/358, M77/1111, M77/1287 & M77/1303

Prepared for

Ramelius Resources Limited



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Prepared by



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Cover Photo: Vegetation within the Symes Find Project Area (image taken 27th August 2022)

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Glossary

Acronym	Description
ANCA	Australian Nature Conservation Agency.
BAM Act	<i>Biosecurity and Agriculture Management Act 2007</i> , WA Government.
BC Act	<i>Biodiversity Conservation Act 2016</i> , WA Government.
BoM	Bureau of Meteorology.
Botanica	Botanica Consulting.
DAFWA	Department of Agriculture and Food (now DPIRD), WA Government.
DAWE	Department of Agriculture, Water and Environment (formerly DoEE), Australian Government (now known as DCCEEW).
DBCA	Department of Biodiversity, Conservation and Attractions (formerly DPaW), WA Government.
DCCEEW	Department of Climate Change, Energy the Environment and Water (formerly DAWE), Australian Government.
DER	Department of Environment Regulation (now DWER), WA Government.
DMIRS	Department of Mines, Industry Regulation and Safety (formerly DMP), WA Government
DMP	Department of Mines and Petroleum (now DMIRS), WA Government.
DoEE	Department of the Environment and Energy (now DAWE), Australian Government.
DoW	Department of Water (now DWER), WA Government.
DPaW	Department of Parks and Wildlife (now DBCA), WA Government.
DPIRD	Department of Primary Industries and Regional Development, WA Government
DWER	Department of Water and Environmental Regulation (formerly EPA, DER and DoW), WA Government
EP Act	<i>Environmental Protection Act 1986</i> , WA Government.
EP Regulations	Environmental Protection (Clearing of Native Vegetation) Regulations 2004, WA Government.
EPA	Environmental Protection Authority (now DWER), WA Government.
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> , Australian Government.
ESA	Environmentally Sensitive Area.
Ha	Hectare (10,000 square metres).
IBRA	Interim Biogeographic Regionalisation for Australia.
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union.
Km	Kilometre (1,000 metres).
MVG	Major Vegetation Groups.
NVIS	National Vegetation Information System.
OEPA	Office of the Environmental Protection Authority, WA Government.
PEC	Priority Ecological Community.
Project	Symes Find Project.
RAOU	Royal Australia Ornithologist Union.
Ramelius	Ramelius Resources Limited.
SRE	Short Range Endemic.
SSC	Species Survival Commission, International.
TEC	Threatened Ecological Community.
WA	Western Australia.
WAHERB	Western Australian Herbarium.
WAM	Western Australian Museum, WA Government.

1 Introduction

The Symes Find Gold Project (the Project) is predominantly a greenfields gold deposit situated in the Lake Grace Terrane at the boundary between the Western Gneiss Terrane and the Southern Cross greenstone belt, within the Yilgarn Craton of Western Australia. The Project is located approximately 58 km south of Moorine Rock and 65 km south of Southern Cross, Western Australia. The Project lies within the Yilgarn Shire and access to the project is via the Moorine South Road (Figure 1-1). Tenements associated with the Project are summarised in Table 1-1.

The Project is situated on freehold land zoned as farming (DoP 2016). The current land use is farming for wheat and sheep. Ramelius Resources Limited (Ramelius) entered into an Option Purchase Agreement in March 2018 for M77/1111, and in March 2019 Ramelius purchased the Lease and owns 100%. Ramelius commenced exploration and resource drilling in 2018. An internal, Inferred only Mineral Resource was generated by February 2019. A number of subsequent drill programmes were then completed and further resource updates generated.

Local private landholders have at various times operated small scale open cut and underground mining with gold extracted from surficial pisolitic laterite and underlying flat quartz veins within mafic volcanics. Steep veins are also recognised.

John Symes (the previous holder of the Lease) conducted a small-scale open pit mining operation to a ~5 m maximum depth and installed an associated vat leach operation (NOI 447) to treat the laterite and oxide ore. The vat leach operation was approved by the Mines Department in 1989.

Additional exploration history includes drilling by Valiant Consolidated in the 1980's and IGO in the late 2000's. Ramelius acquired adjacent mining lease, M77/1287, from the Mt Hampton Mining Company Pty Ltd in August 2021. The Mt Hampton syndicate previously mined two areas of surface laterite in early 2018. This material was trucked and milled at Edna May under an ore purchase agreement. A total of 72,200 t@2.19 g/t for 4,592 oz (recovered) was milled with 97.1% recovery.

Table 1-1: Project Tenements

Tenement	Area (ha)	Holder	Granted	Expiry
M77/1111	18.47	Edna May Operations Pty Ltd	05/12/2008	05/12/2029
M77/1287	56.04	Edna May Operations Pty Ltd	11/04/2017	11/04/2038
M77/1303	50.80	Edna May Operations Pty Ltd	15/03/2023	14/03/2044
G77/139	33.38	Edna May Operations Pty Ltd	15/03/2023	14/03/2044
G77/138	04.40	Edna May Operations Pty Ltd	15/03/2023	14/03/2044
L77/358	107.80	Edna May Operations Pty Ltd	16/02/2023	15/02/2044

Edna May Operations Pty Ltd (EMO), a wholly owned subsidiary of Ramelius proposes to develop an open pit gold mine and associated infrastructure at the Symes Find project site. Mined ore will be hauled to the EMO mine site for processing located approximately 121 km by road to the north-west of the Symes Find project. The Project is scheduled to commence in Q2 2023 with an operational mine life estimated at 18-24 months. The project will comprise the following components:

- Waste Rock Landform (WRL)
- Mining voids
- Turkeys nests
- Mine ore pad (MOP)
- Buildings and offices
- Workshop
- Transport infrastructure corridor (access and haul roads)
- Laydown / hardstand storage areas
- Water bores and pipelines
- Explosives magazine
- Communication facilities (telephone, internet, radio telemetry)

The Project requires a clearing permit application (referred to in this document as the 'assessment area') which encompasses an area of 4 ha (Figure 1-2).

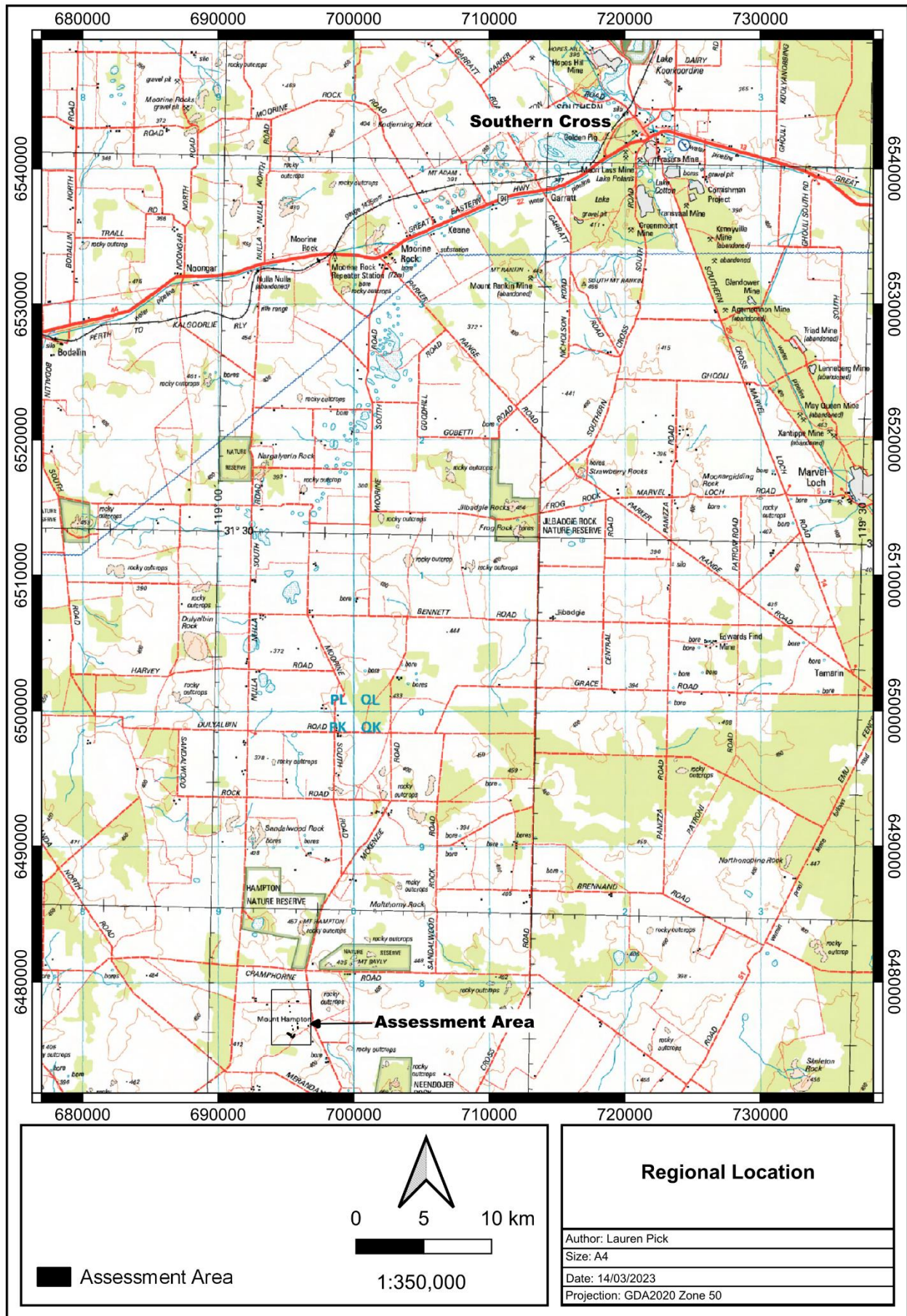


Figure 1-1: Regional location of the Symes Find Project

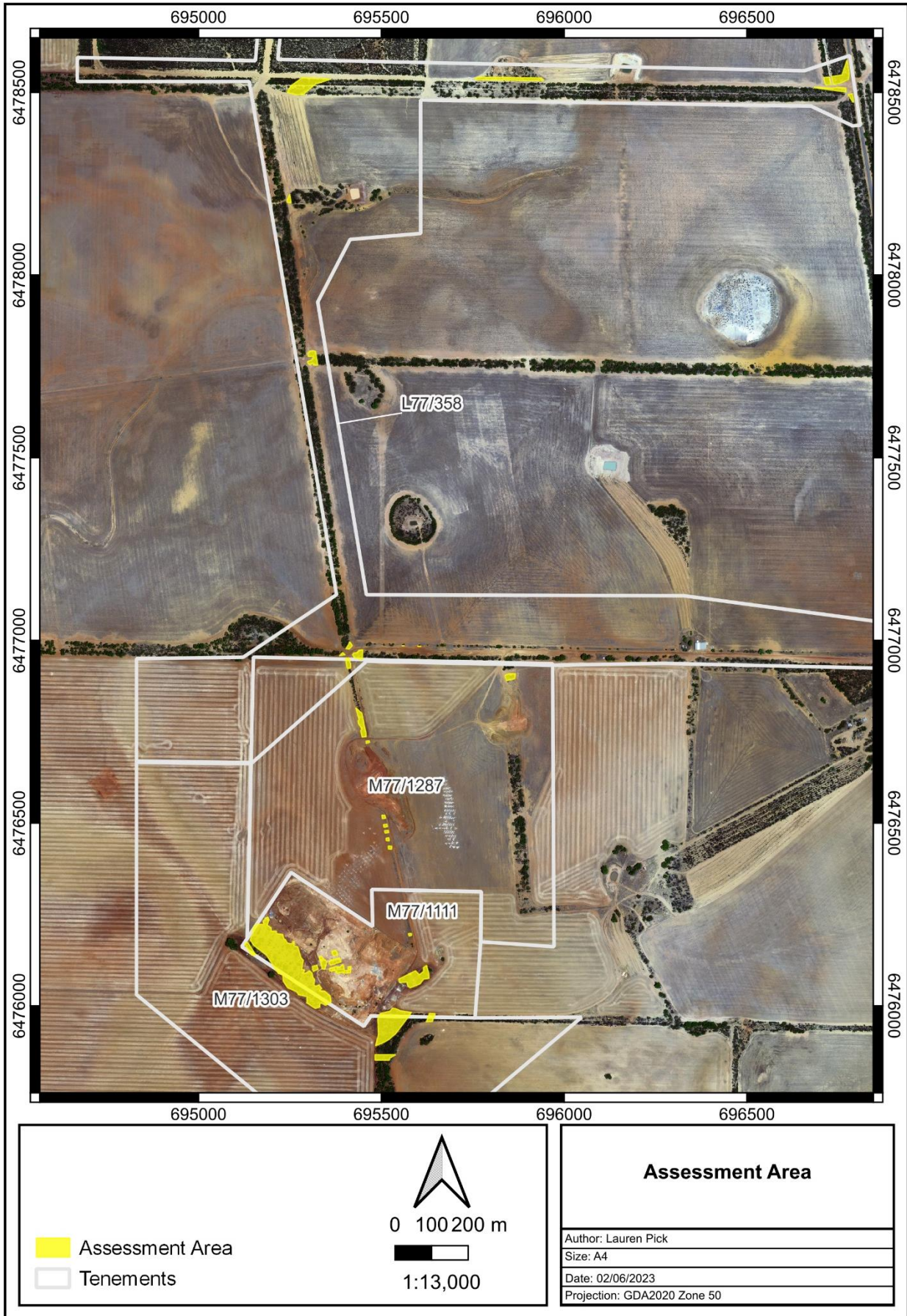


Figure 1-2: Assessment Area

2 Existing Environment

2.1 Regional Setting

The assessment area lies within the Merredin (AVW01) subregion of the Avon Wheatbelt Bioregion, as defined by the Interim Biogeographic Regionalisation of Australia (IBRA).

The Avon Wheatbelt is an area of active drainage dissecting a Tertiary plateau in Yilgarn Craton. The landscape is gently undulating with low relief. Proteaceous scrub heaths, rich in endemics, are found on residual lateritic uplands and derived sandplains, and Quaternary alluvials and eluvials contain mixed eucalypt, *Allocasuarina huegeliana* and Jam-York Gum woodlands on Quaternary alluvials and eluvials.

The Merredin subregion is an ancient peneplain with low relief and gently undulating landscape. There is no connected drainage and salt lake chains occur as remnants of ancient drainage systems that now only function in very wet years. Lateritic uplands are dominated by yellow sandplains. The region experiences a Semi-arid (Dry) Warm Mediterranean (Beecham, 2001).

In accordance with Beard (1990), the assessment area is located in the Wheatbelt Region of the Avon Botanical District within the Southwest Province of WA. The geology consists of Archaean granite with infolded metamorphics of the Yilgarn Block. The topography is undulating, with mostly disorganized drainage. Remnant land surfaces are preserved and create catenary sequences of soils, principally yellow earths in sandplains, sometimes with ironstone gravels on the periphery. Hard-setting loams are found on slopes and bottom lands, and saline soils in depressions. Vegetation is typified by scrub-heath on sandplains, *Acacia-Casuarina* thickets on ironstone gravels, woodlands of York Gum (*Eucalyptus loxophleba*), Salmon Gum (*E. salmonophloia*) and Wandoo (*E. wandoo*) on loams, and halophytes in saline areas. The climate is dry-warm Mediterranean, with annual precipitation ranging from 300-650 mm per annum. Rainfall occurs predominately in the winter, with 7-8 dry months per year.



Figure 2-1: IBRA Bioregions in relation to the assessment area

2.2 Soils and Landscape Systems

The assessment area lies within the Avon Province, which consists of laterised plateau (dissected at fringes and with saline drainage lines inland) on deeply weathered mantle and alluvium over granitic rocks of the Yilgarn Craton (and Albany-Fraser Orogen). The Avon Province is located in the south-west, between Nannup, Denmark, Jerramungup, Southern Cross, Lake Moore, Carnamah and the Perth Hills. Soil types consist of sandy duplexes soils and Ironstone gravelly soils with loamy earths, loam duplexes, Sandy earths, deep sands and wet soils. Vegetation communities are predominately York gum-wandoo-salmon gum-morrel-gimlet woodland and jarrah-marri-karri-wandoo woodlands/forests (with some mallee scrub, tammar-wodjil thickets and scrub-heath). (Tille, 2006).

The Avon Province is further divided into soil-landscape zones, with the assessment area located within the Northern Zone of Ancient Drainage (258).

This zone is comprised of gently undulating terrain (with some sandplains and salt lakes chains) on deeply weathered mantle and alluvium over granitic rocks of the Yilgarn Craton. Soils include sandy earths (mostly yellow and red), loamy earths (often calcareous), sandy duplexes, loamy duplexes, deep sands and ironstone gravelly soils. Vegetation consists of salmon gum-gimlet-morrel-wandoo-York gum woodlands with mallee scrub and some acacia-casuarina thickets, scrub-heath and samphire flats. It is located in the eastern Wheatbelt between Quairading, Hyden, Bullfinch, Bonnie Rock, Lake Moore, Carnamah and Wongan Hills. (Tille, 2006).

In accordance with soil landscape system mapping data (Government of Western Australia, 2019), the soil landscape zones are divided into soil landscape systems, with the assessment area located within three soil landscape systems as described in Table 2-1 and shown in Figure 2-1.

Table 2-1: Soil landscape systems within the assessment area

Soil Landscape System	Description	Extent within assessment area
Holleton System	Lateritic sandplain and other soil formations on low isolated often mafic hills. Large scale configuration of landscapes reflects underlying geological structures.	3.2 ha (80%)
Kellerberrin System	Valley floors, in the central Zone of Ancient Drainage, with alkaline red shallow loamy duplex, alkaline grey sandy duplexes mainly in branch valleys (shallow and deep), calcareous loamy earth and hard cracking clay. Salmon Gum-Gimlet-Wand	0.4 ha (10%)
Tandegin System	Sandplain dominated interfluvial with weakly indurated lateritised crests and upper slopes and long colluvial yellow sandplain upper to lower slopes. Unlateritised surfaces dominated by sodic and alkaline duplex soils.	0.4 ha (10%)

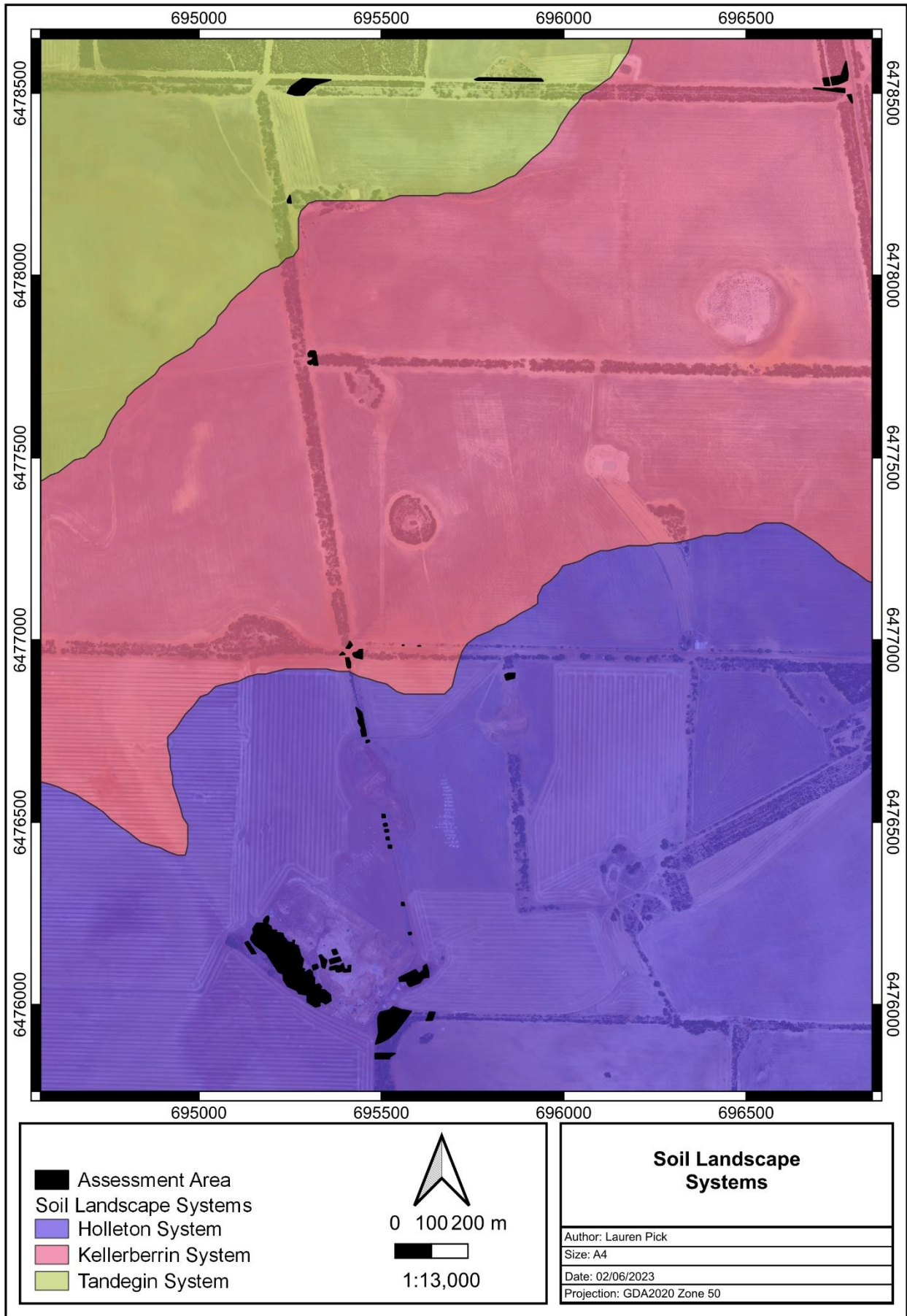


Figure 2-2: Soil landscape systems within the assessment area

2.3 Hydrology

According to the Geoscience Australia database (2015), there are no permanent or ephemeral water bodies or drainage lines within the assessment area (Figure 2-3).

Groundwater Dependent Ecosystems (GDE) includes biological assemblages of species such as wetlands or woodlands that use groundwater either opportunistically or as their primary water source. For the purposes of this report, a GDE is defined as any vegetation community that derives part of its water budget from groundwater and must be assumed to have some degree of groundwater dependency. In accordance with the BoM Atlas of Groundwater Dependent Ecosystems (BoM, 2022) database, there are no known aquatic or terrestrial GDEs within the assessment area. There is one low potential terrestrial GDE within the assessment area; Shrublands; York gum & *Eucalyptus sheathiana* mallee scrub.

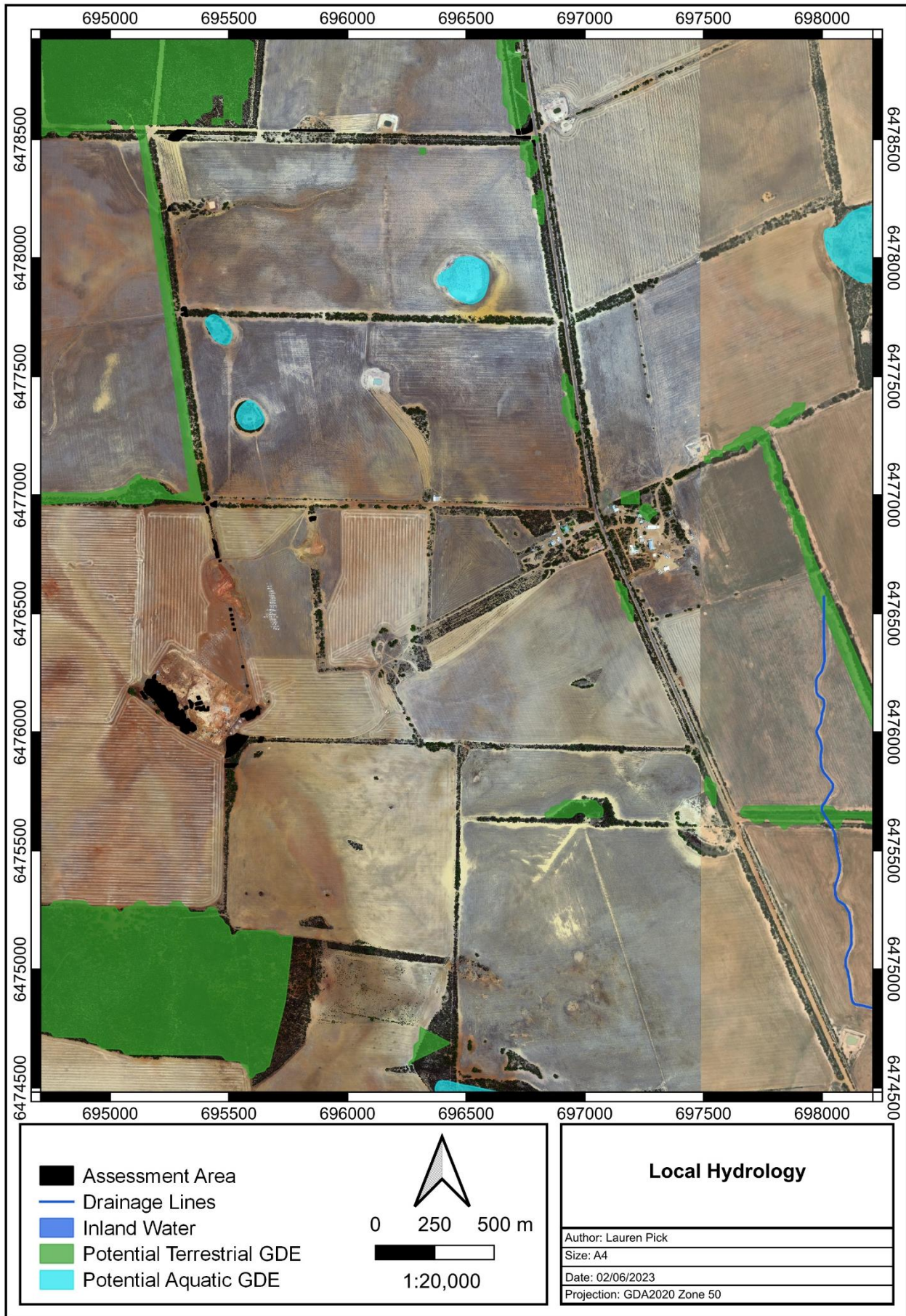


Figure 2-3: Hydrology of the assessment area

2.4 Conservation Values

The Avon Wheatbelt Bioregion contains the *Eucalypt Woodlands of the Western Australian Wheatbelt* Threatened Ecological Community, which is listed as Critically Endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC, 2015). The *Priority Ecological Communities for Western Australia* list (DBCA, 2022) identifies 23 PEC's occurring within the Wheatbelt region, of which five are considered representative of the *Eucalypt Woodlands of the Western Australian Wheatbelt* TEC. Notable landforms that host significant species and communities include granite outcrops, rock pools and gypsum dunes.

The assessment area is not located within the mapped boundary of the *Eucalyptus Woodlands of the Western Australian Wheatbelt* TEC (paid PEC/ TEC spatial database search obtained from DBCA, 2021) and was not identified during a flora and vegetation survey conducted by Botanica Consulting Pty Ltd (Botanica) within the assessment area (Botanica, 2022). Eucalyptus woodlands within the assessment area were highly fragmented and disturbed and did not meet minimum requirements for size and condition under the *Approved Conservation Advice* guidelines (EPBC, 2015) as detailed in Section 2.5.3.

There are no proposed or gazetted conservation reserves located within the assessment area. There are no Environmentally Sensitive Areas as listed under the *Environmental Protection Act 1986* within the assessment area.

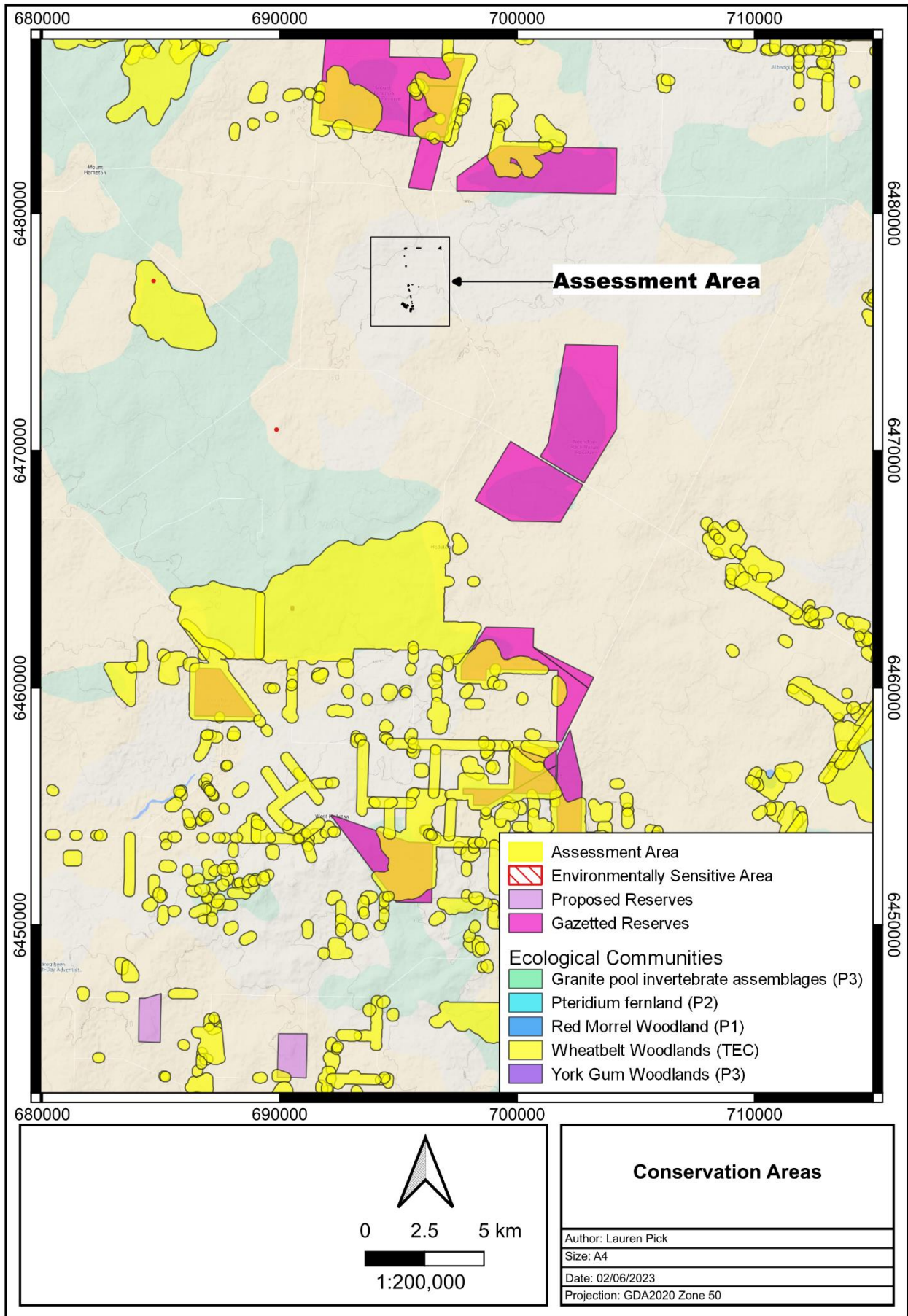


Figure 2-4: Conservation values in relation to the assessment area

2.5 Vegetation and Flora

The Pre-European vegetation association spatial mapping dataset (DPIRD, 2018) identified one vegetation association as occurring within the assessment area (Figure 2-5). The association descriptions and their remaining extent, as specified in the 2018 Statewide Vegetation Statistics (Government of Western Australia, 2019) is provided in Table 2-2. Areas retaining less than 30% of their pre-European vegetation extent generally experience exponentially accelerated species loss, while areas with less than 10% are considered “endangered” (EPA, 2000). The Skeleton Rock 1055 vegetation association currently retains 29.4% of its pre-European extent which is below the EPA recommended 30% threshold. However, development within the assessment area will not significantly reduce the current extent of this vegetation association, resulting in only a 0.06% reduction.

Table 2-2: Pre-European vegetation associations within the assessment area

Vegetation Association	Current Extent (ha)	Pre-European extent remaining	% Protected for Conservation	Floristic Description	Extent within assessment area (ha)/ % impact
Skeleton Rock 1055	6,443	29.4	2.62	Shrublands; York gum & <i>Eucalyptus sheathiana</i> mallee scrub	4 ha (0.06%)

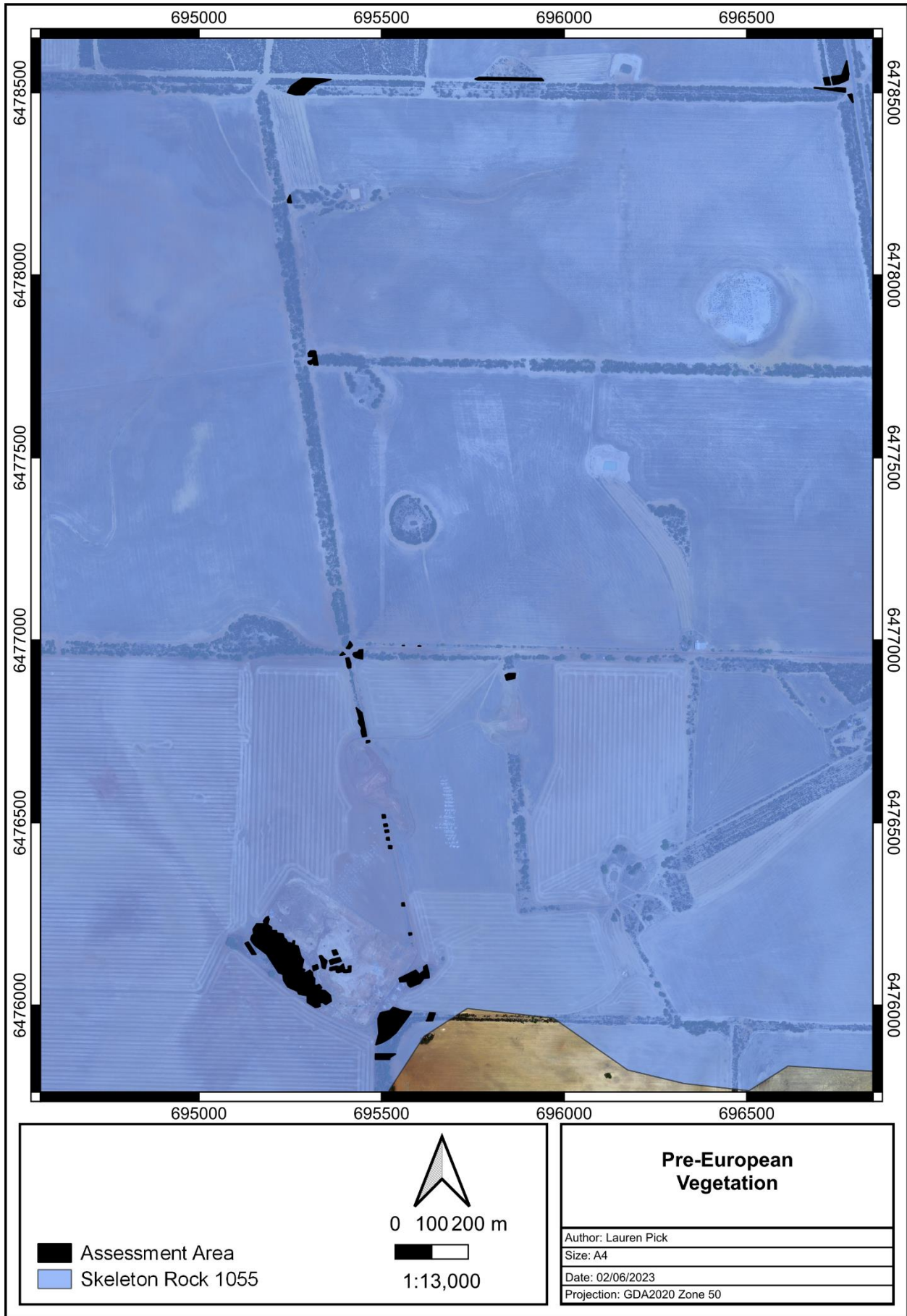






Figure 2-5: Pre-European vegetation associations within the assessment area

Botanica was commissioned by Ramelius Resources Limited to undertake a reconnaissance flora and vegetation survey of the Symes Find Project, encompassing an approximate area of 58 ha. The survey was conducted on the 27th August 2022 and 15th May 2023. A total of six broad-scale vegetation communities were identified within the survey area, four of which occur within the assessment area. Vegetation community descriptions within the assessment area are listed below in Table 2-3.

Table 2-3: Summary of vegetation communities within the assessment area

Vegetation Code	NVIS Major Vegetation Group	Vegetation Type	Image
CLP-EW1	<i>Eucalyptus</i> low woodland	<i>Eucalyptus salubris</i> , <i>E. longicornis</i> and <i>E. celastroides</i> subsp. <i>virella</i> low woodland over <i>Acacia hemiteles</i> , <i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i> and <i>M. sheathiana</i> tall shrubland over <i>Exocarpos aphyllus</i> , <i>Eremophila decipiens</i> subsp. <i>decipiens</i> and <i>Lycium australe</i> open shrubland over <i>Austrostipa elegantissima</i> open hummock grassland	
CLP-EW2	<i>Eucalyptus</i> open woodland	<i>Acacia salubris</i> , <i>E. longicornis</i> and <i>E. salmonophloia</i> open woodland over <i>Acacia acuminata</i> , <i>A. colletioides</i> and <i>A. erinacea</i> tall shrubland over <i>Eremophila drummondii</i> , <i>E. ionantha</i> and <i>Lycium australe</i> open shrubland over <i>Austrostipa elegantissima</i> open hummock grassland	

Vegetation Code	NVIS Major Vegetation Group	Vegetation Type	Image
SLP-EW1	<i>Eucalyptus</i> woodland	<p><i>Eucalyptus salmonophloia</i>, <i>E. salubris</i> and <i>E. eremophila</i> subsp. <i>eremophila</i> woodland over <i>Melaleuca hamata</i>, <i>M. lateriflora</i> subsp. <i>lateriflora</i> and <i>Hakea pendens</i> tall shrubland over <i>Eremophila decipiens</i> subsp. <i>decipiens</i>, <i>E. ionantha</i> and <i>E. scoparia</i> open shrubland</p>	
SLP-MW1	<i>Eucalyptus</i> mallee woodland	<p><i>Eucalyptus transcontinentalis</i>, <i>E. eremophila</i> subsp. <i>eremophila</i> and <i>Callitris preissii</i> low open woodland over <i>Acacia enervia</i> subsp. <i>enervia</i>, <i>A. camptoclada</i> and <i>Pityrodia lepidota</i> open shrubland over <i>Westringia rigida</i>, <i>W. cephalantha</i> var. <i>caterva</i> and <i>Triodia scariosa</i> low open shrubland/hummock grassland</p>	

2.5.1 Vegetation Condition

Based on the vegetation condition rating scale adapted from Keighery (1994) and Trudgen, (1988), native vegetation condition within the assessment area was categorized as 'good' to 'completely degraded' (Table 2-4). Disturbances within the assessment area include introduced weed species, fragmentation, adjacent agricultural activities (fertilizers, herbicides etc.), grazing and changed fire regimes.

Table 2-4: Vegetation condition rating within the assessment area

Condition rating	Description	Area (ha)	Area (%)
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and grazing.	0.5	12.5
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds at high density, partial clearing, dieback and grazing.	3.7	92.5
Completely Degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees and shrubs.	0.3	7.5
TOTAL		4.0	100

2.5.2 Significant Flora

According to the EPA Environmental Factor Guideline for Flora and Vegetation (EPA, 2016b) significant flora includes:

- flora being identified as threatened or priority species;
- locally endemic flora or flora associated with a restricted habitat type (e.g. surface water or groundwater dependent ecosystems);
- new species or anomalous features that indicate a potential new species;
- flora representative of the range of a species (particularly, at the extremes of range, recently discovered range extensions, or isolated outliers of the main range);
- unusual species, including restricted subspecies, varieties or naturally occurring hybrids; and
- flora with relictual status, being representative of taxonomic groups that no longer occur widely in the broader landscape.

No Threatened, Priority or otherwise significant flora species were recorded within the assessment area.

2.5.3 Significant Vegetation

According to the EPA Environmental Factor Guideline for Flora and Vegetation (EPA, 2016b) significant vegetation includes:

- vegetation being identified as threatened or priority ecological communities;
- vegetation with restricted distribution;
- vegetation subject to a high degree of historical impact from threatening processes;
- vegetation which provides a role as a refuge; and
- vegetation providing an important function required to maintain ecological integrity of a significant ecosystem.

No Threatened, Priority or otherwise significant ecological communities were identified within the assessment area.

The *Eucalyptus Woodlands of the Western Australian Wheatbelt* TEC was not identified within the assessment area. Eucalyptus woodlands within the assessment area were highly fragmented and disturbed and did not meet minimum requirements for size and condition under the *Approved Conservation Advice* guidelines (EPBC, 2015). The assessment of native vegetation against the diagnostic criteria is show in Table 2-5.

Table 2-5: Assessment against Eucalypt Woodlands of the Western Australian Wheatbelt Diagnostic Criteria (DotEE, 2015)

TEC Diagnostic Criteria	Description	Assessment
Diagnostic 1 Location	Survey located within one of the following three regions: 1. Avon Wheatbelt bioregion - subregions AVW01 Merredin and AVW02 Katanning 2. Mallee bioregion - MAL02 Western Mallee only 3. Jarrah Forest bioregion If within any of the above regions continue to Diagnostic 2	All vegetation types meet this criterion.
Diagnostic 2 Minimum crown canopy	1. The structure of the ecological community is a woodland in which the minimum crown cover of the tree canopy in a mature eucalypt woodland is 10% 2. Crown cover of trees less than 10% but area recently disturbed (e.g. fire), presence of seedlings and/or saplings. If vegetation meets any one of the structure description above continue to Diagnostic 3 Crown cover of trees less than 10%, no evidence of recent disturbance, no presence of seedlings or saplings- NOT TEC	All vegetation types meet this criterion.
Diagnostic 3 Dominant <i>Eucalyptus</i> tree canopy	1. One or more of the key tree species in Table 1 are dominant or co-dominant, the trees are predominantly single trunked, not mallee (multi-stemmed). 2. Other species are present in the tree canopy (e.g. species in Table 2 or other taxa) but these collectively do not occur as dominants in the tree canopy. 3. Dominant woodlands with a mallee subcanopy (lower tree layer of mallee or non-eucalypt tree species). Upper eucalypt tree canopy must be present dominated by key woodland species in Table 2 and have cover of 10% or more. If dominant vegetation meets any one of the descriptions above continue to Diagnostic 4 Other species are present in the tree canopy (e.g. species in Table 2 or other taxa) and these collectively do occur as dominants in the tree canopy- NOT TEC	Vegetation communities CLP-EW1, CLP-EW2 and SLP-EW1 meet this criterion.
Diagnostic 4 Native understorey	1. A native understorey is present but is of variable composition, being a combination of grasses, other herbs and shrubs. A list of key species is summarised in Table 3. Any one of the structural understorey categories may or may not be present. Bare to sparse understorey (e.g. under some mallee woodlands). 2. Herbaceous understorey – a ground layer of forbs and/or graminoids though a few, scattered shrubs may be present. 3. Scrub or heath understorey – comprises a mixture of diverse shrubs of variable height and cover. A ground layer of herbs and grasses is present to variable extent. 4. Chenopod-dominated understorey – a subset of the scrub category in which the prominent species present are saltbushes, bluebushes and related taxa (e.g. <i>Atriplex</i> , <i>Enchylaena</i> , <i>Maireana</i> , <i>Rhagodia</i> and <i>Sclerolaena</i>). 5. Thickets of taller shrub species understorey (e.g. <i>Melaleuca pauperiflora</i> , <i>M. acuminata</i> , <i>M. uncinata</i> , <i>M. lanceolata</i> , <i>M. sheathiana</i> , <i>M. adnata</i> , <i>M. cucullata</i> and/or <i>M. lateriflora</i> , <i>Allocasuarina campestris</i> with <i>Melaleuca hamata</i> or <i>M. scalena</i>). A range of other shrub and ground layer species may occur among or below the thickets. 6. Salt tolerant species understorey (e.g. samphire, <i>Tecticornia</i> spp.). If native understorey meets any one of the descriptions above continue to Diagnostic 5 Shrublands or herblands in which the tree canopy layer is very sparse to absent, either naturally or maintained so through long-term disturbance. Native vegetation where a tree canopy was formerly present is often referred to as 'derived' or 'secondary' vegetation. These sites would fall below the 10 per cent minimum canopy cover threshold for a woodland- NOT TEC	Vegetation communities CLP-EW1, CLP-EW2 and SLP-EW1 meet this criterion.

TEC Diagnostic Criteria	Description				Assessment
Diagnostic 5 Vegetation condition	Cover of exotic plants (weeds) AND	Mature trees ¹ AND	Minimum patch size (non-roadside patches) ² OR	Minimum patch width (roadsides only) ³	Potential <i>Eucalypt</i> woodland communities are highly fragmented with a dominance on introduced weed species in the understory. Vegetation condition is categorised as 'good', and no remnant vegetation patches meet the 5 ha threshold for minimum patch size.
	<i>Category A: Patches likely to correspond to a condition of Pristine / Excellent / Very good (Keighery, 1994) or a High RCV (RCC, 2014).</i>				
	Exotic plant species account for 0 to 30% of total vegetation cover in the understorey layers (i.e. below the tree canopy).	Mature trees may be present or absent.	2 hectares or more	5 metres or more	
	<i>Category B: Patches likely to correspond to a condition of Good (Keighery, 1994) or a Medium-High RCV (RCC, 2014), AND retains important habitat features.</i>				
	Exotic plant species account for more than 30, to 50% of total vegetation cover in the understorey layers (i.e. below the tree canopy)	Mature trees are present with at least 5 trees per 0.5 ha.	2 hectares or more	5 metres or more	
	<i>Category C: Patches likely to correspond to a condition of Good (Keighery, 1994) or a Medium-High RCV (RCC, 2014).</i>				
	Exotic plant species account for more than 30, to 50% of total vegetation cover in the understorey layers (i.e. below the tree canopy).	Mature trees either absent or <u>less than</u> 5 trees per 0.5 ha are present.	5 hectares or more	5 metres or more	
	<i>Category D: Patches likely to correspond to a condition of Degraded to Good (Keighery, 1994) or a Medium-Low to Medium-High RCV (RCC, 2014) BUT retains important habitat features.</i>				
Exotic plant species account for more than 50 to 70% of total vegetation cover in the understorey layers (i.e. below the tree canopy).	Mature trees are present with at least 5 trees per 0.5 ha.	5 hectares or more	5 metres or more		

TEC Diagnostic Criteria	Description	Assessment
	<p>¹ Mature trees have a diameter at breast height (dbh) of 30 cm or above. Trunk diameter varies among eucalypt species, for instance gimlet and mallets tend to have slender trunks (Gosper et al., 2013b). The dbh for mature trees aligns with the EPBC referral guidelines for the breeding habitat of threatened black cockatoo species (DSEWPoC, 2012). These note that, for salmon gum and wandoo trees, suitable nest hollows can develop in trees with a dbh of 30 cm or more. Note that larger trees may be killed by factors such as intense fire or flood but the patch may still be in reasonable condition if there are immature trees regenerating.</p> <p>² The minimum patch size thresholds apply to native vegetation remnants that do not occur along roadsides.</p> <p>³ Minimum patch width applies only to vegetation remnants along roadsides and tend to be long but narrow. This criterion recognises the importance of native vegetation remnants along road verges, e.g their value as wildlife corridors particularly if linking to other non-roadside remnants, habitat for threatened species and other reasons as detailed by Jackson (2002) and RCC (2015). The width here is based on the native understorey component rather than width of the tree canopy. Some allowance must be made for small breaks or variations in native species cover along linear patches. Given the generally open nature of the tree canopy and some understorey structures, a break in the continuity of native vegetation cover of 50 metres or more, is likely to indicate that separate patches are present. An exception is for main, often bitumen-covered, roads that bisect otherwise continuous vegetation; most local government roads in the wheatbelt have a road reserve of 20 metres. In these cases, native vegetation along either side of the road is considered to be a separate patch.</p>	

2.6 Fauna

2.6.1 Significant Fauna

According to the EPA *Environmental Factor Guideline for Terrestrial Fauna* (EPA, 2016c) fauna of conservation significance includes:

- Fauna being identified as a threatened or priority species
- Fauna species with restricted distribution
- Fauna subject to a high degree of historical impact from threatening processes
- Fauna providing an important function required to maintain the ecological integrity of a significant ecosystem.

There are no known DBCA records of significant fauna recorded within the survey area there was no evidence of significant fauna identified within the assessment area.

3 Native Vegetation Clearing Principles

The proposed clearing within the assessment area has been assessed against the native vegetation clearing principles as shown in Table 3-1. The assessment found that the proposed vegetation clearing activities may be at variance with clearing principle (e).

Table 3-1: Assessment of clearing against native vegetation clearing principles

Letter	Principle	Assessment	Outcome
	Native vegetation should not be cleared if it:		
(a)	comprises a high level of biological diversity.	Vegetation within the assessment area is considered to be of low biological diversity and is well represented outside the assessment area. No Threatened, Priority or otherwise significant flora or ecological communities were identified within the assessment area.	Clearing is unlikely to be at variance with this principle
(b)	comprises the whole or part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to WA.	There are no known records of Threatened Fauna within the assessment area.	Clearing is unlikely to be at variance with this principle
(c)	includes, or is necessary for the continued existence of rare flora.	No Threatened Flora taxa, pursuant to the BC Act and the EPBC Act were identified within the assessment area.	Clearing is unlikely to be at variance with this principle
(d)	comprises the whole or part of or is necessary for the maintenance of a threatened ecological community (TEC).	No Threatened Ecological Communities were identified within the assessment area.	Clearing is unlikely to be at variance with this principle
(e)	is significant as a remnant of native vegetation in an area that has been extensively cleared	The Skeleton Rock 1055 vegetation association retains 29.4% of its Pre-European extent. However, development within the assessment area will not significantly reduce the current extent of this vegetation association, resulting in only a 0.12% reduction.	Clearing may be at variance with this principle
(f)	is growing, in, or in association with, an environment associated with a watercourse or wetland	No water bodies or ephemeral drainage lines were identified within the assessment area.	Clearing is unlikely to be at variance with this principle
(g)	Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	The surrounding region has been extensively cleared. Clearing within the assessment area is not considered likely to increase land degradation issues such as salinity, water logging or acidic soils.	Clearing is unlikely to be at variance with this 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 assessment is not located within or adjacent to any conservation areas.	Clearing is unlikely to be at variance with this 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.	No water bodies or ephemeral drainage lines were identified within the assessment area. Clearing activities are unlikely to impact hydrological systems.	Clearing is unlikely to be at variance with this principle

Letter	Principle	Assessment	Outcome
Native vegetation should not be cleared if it:			
(j)	Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding	Rainfall in the Wheatbelt region has an average rainfall of 300-650 mm. Clearing within the assessment area is not likely to increase the incidence or intensity of flooding within the assessment area or surrounds.	Clearing is unlikely to be at variance with this principle

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