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**RE: Native Vegetation Clearing Permit Application for Bonnievale Underground Mine Project**

Focus Operations Pty Ltd (Focus), a wholly owned subsidiary of Focus Minerals Ltd, is proposing to develop a new underground gold mine at Bonnievale. To support the development Focus are seeking a Native Vegetation Clearing Permit for the clearing of up to 48.3 ha within a disturbance envelope of 112.2 ha for the purpose of mineral production and associated activities

This letter provides context for the proposed clearing and includes an assessment against the ten clearing Principles, as defined under Schedule 5 of the EP Act. The proposed clearing is unlikely to be at variance with any clearing principle.

Included within this letter are:

- A completed NVCP application form (NV-F01);
- An ESRI shapefile of the proposed disturbance envelope / clearing permit area;
- Proof of ownership (Appendix A); and
- Biological surveys undertaken to support the application (Appendix B)

Yours sincerely,

Gemma Blick  
Environment Manager  
Focus Minerals Ltd

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## 1. Proposed Activities

Focus Operations Pty Ltd (Focus) is proposing to develop the Bonnievale Underground Mine Project (the Project) to extract gold ore for processing at the nearby Three Mile Hill (TMH) mill.

Focus will develop a small box cut excavation to access the underground orebody, which requires significantly less clearing than developing a new open pit mine. Clearing is also required for supporting mine activities including:

- Waste rock landforms (WRL);
- Run-of-mine (ROM) pad;
- Mine water ponds (MWP);
- Dewatering pipelines;
- Topsoil stockpiles;
- Surface water diversion channels or drains; and
- Other ancillary infrastructure.

A Mining Proposal (MP) for the Project will be submitted to Department of Mines, Industry Regulation and Safety (DMIRS) in conjunction with other supporting approvals required under applicable legislation prior to commencement of activities.

### 1.1 Location

The Project is located adjacent to the historic abandoned Bonnievale town site, approximately 10 km north of Coolgardie and 40 km west of Kalgoorlie-Boulder in the Eastern Goldfields region of Western Australia. The Project is situated within the Shire of Coolgardie local government area and accessed via the public Coolgardie North Road off the Great Eastern Highway. The Project forms part of a broader tenement package covering the Coolgardie Gold Operations (CGO) owned wholly by Focus and its subsidiaries. The Project regional location is shown in Figure 1.

The Project requires clearing on three (3) tenements within the CGO as detailed in Table 1 below. Proof of ownership of these tenements is provided in **Appendix A**.

*Table 1: Tenement details*

Tenement ID	Holder 1	Holder 2	Area (ha)	Expiry
M 15/277	Focus Minerals Ltd	Focus Operations Pty Ltd	430.25	01/05/2030
M 15/595	Focus Minerals Ltd	Focus Operations Pty Ltd	390.80	05/01/2034
M 15/877	Focus Minerals Ltd	Focus Operations Pty Ltd	100.60	11/06/2030

### 1.2 Disturbance Envelope

Focus is requesting a total allowable clearing area of 48.3 ha within a disturbance envelope of 112.2 ha as depicted in Figure 2 and Figure 3 (Note: the proposed infrastructure layout is indicative).

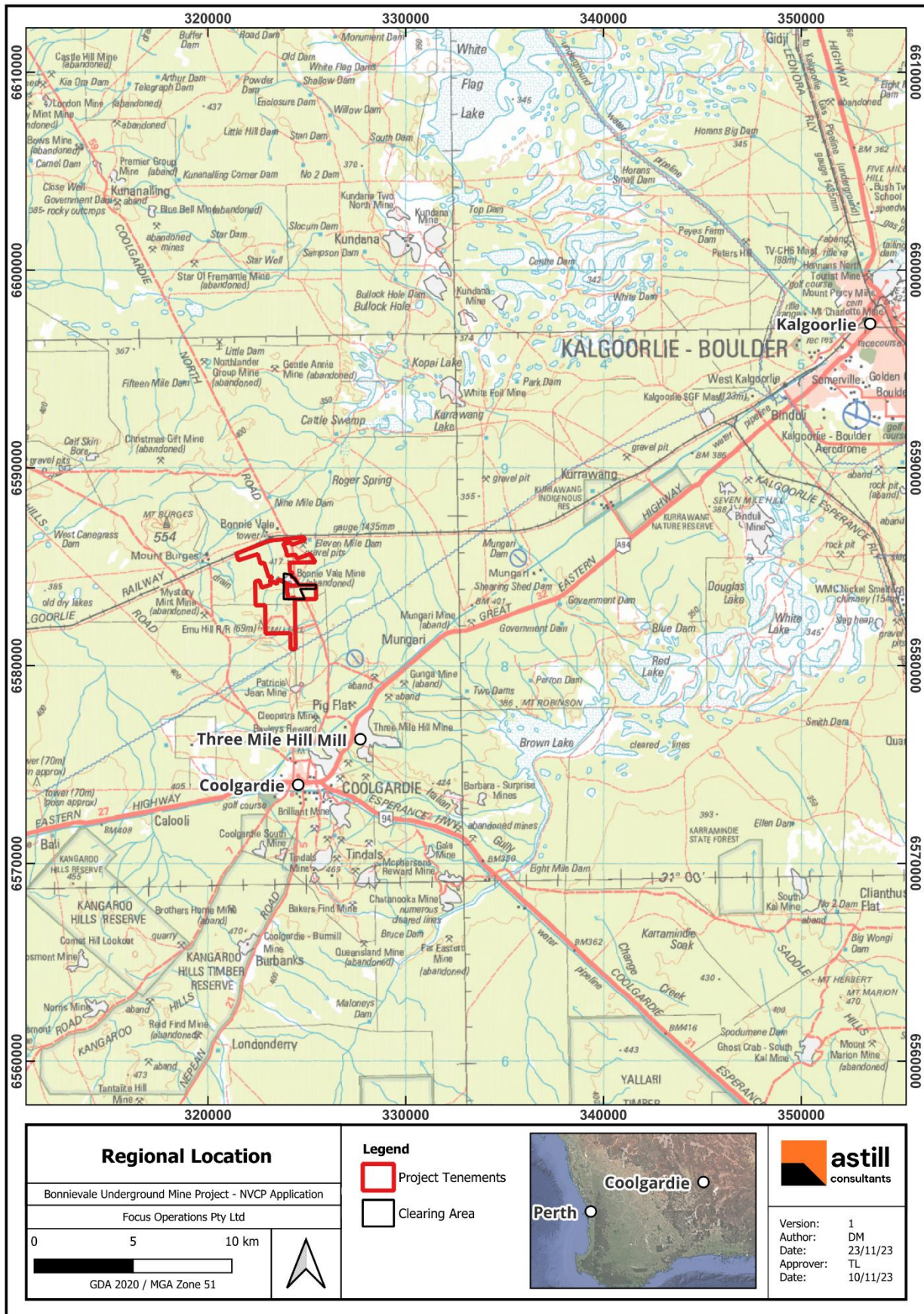


Figure 1: Regional location

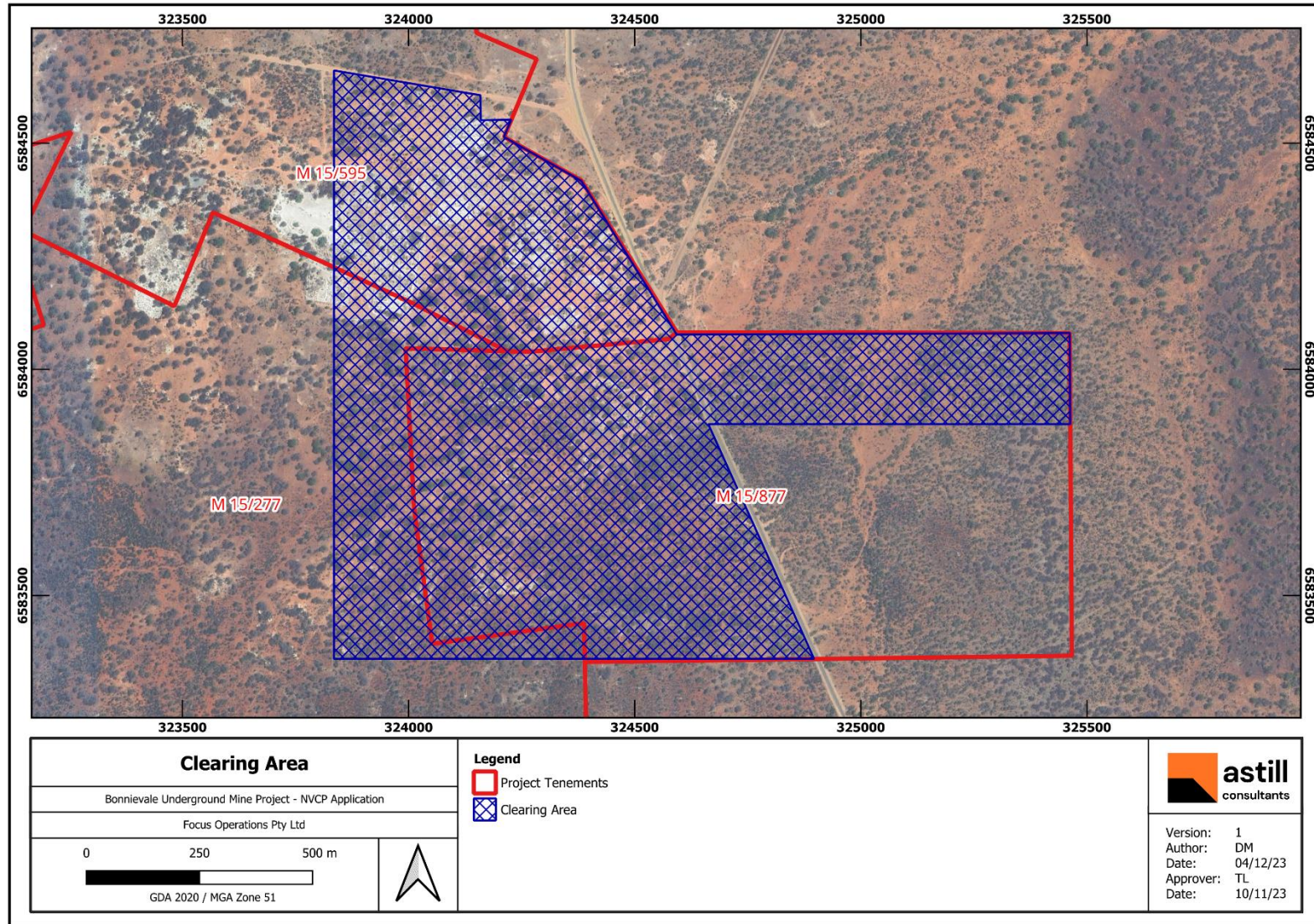


Figure 2: Clearing area

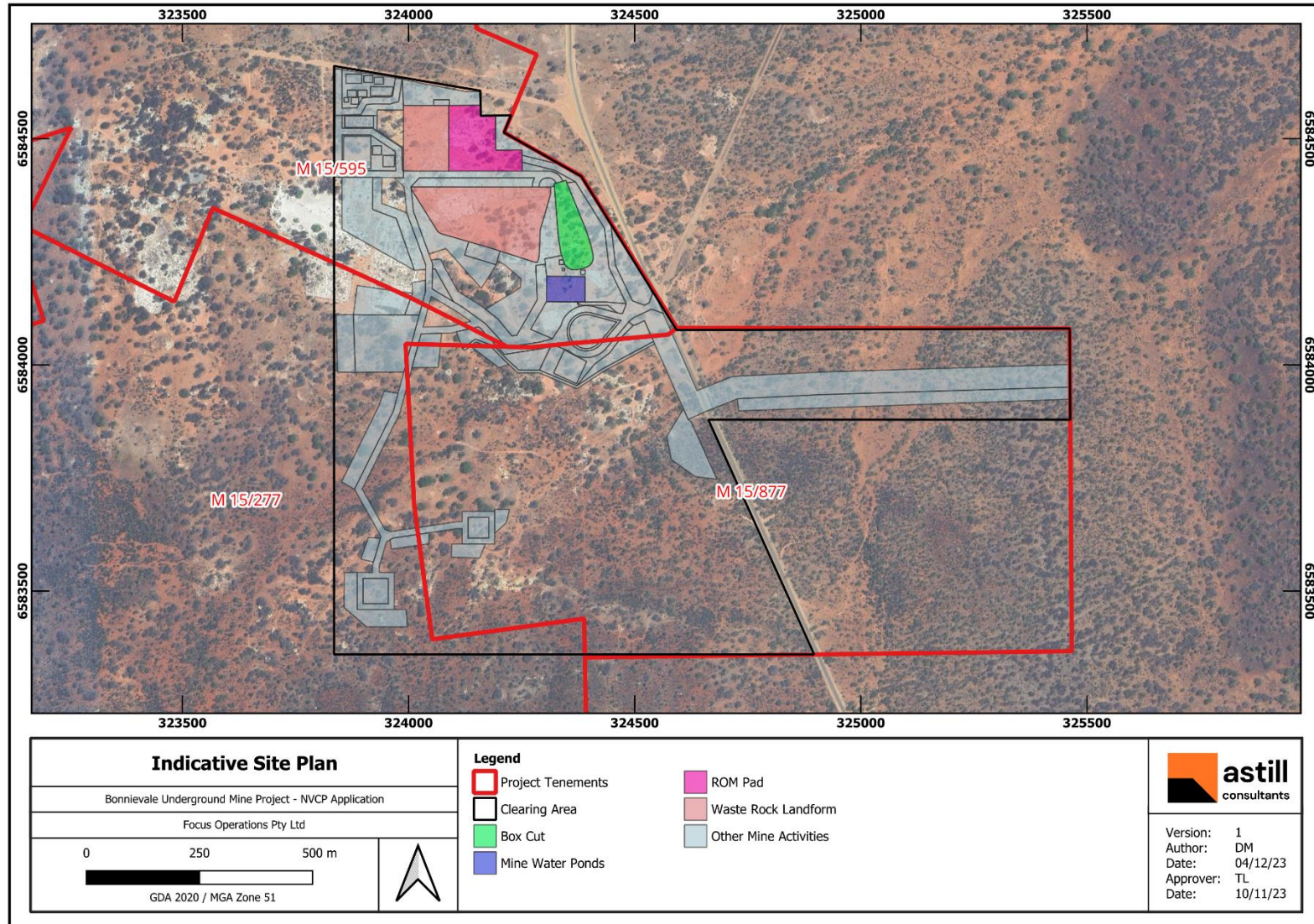


Figure 3: Indicative site plan

## 2. Environmental Setting

### 2.1 Climate

The climate of the Eastern Goldfields subregion is characterised as an arid to semi-arid climate of hot summers and mild winters with annual rainfall of approximately 200 – 300 mm (Beard, 1990; Cowan, 2001). Climate data from the Coolgardie weather station is presented in Figure 4 below.

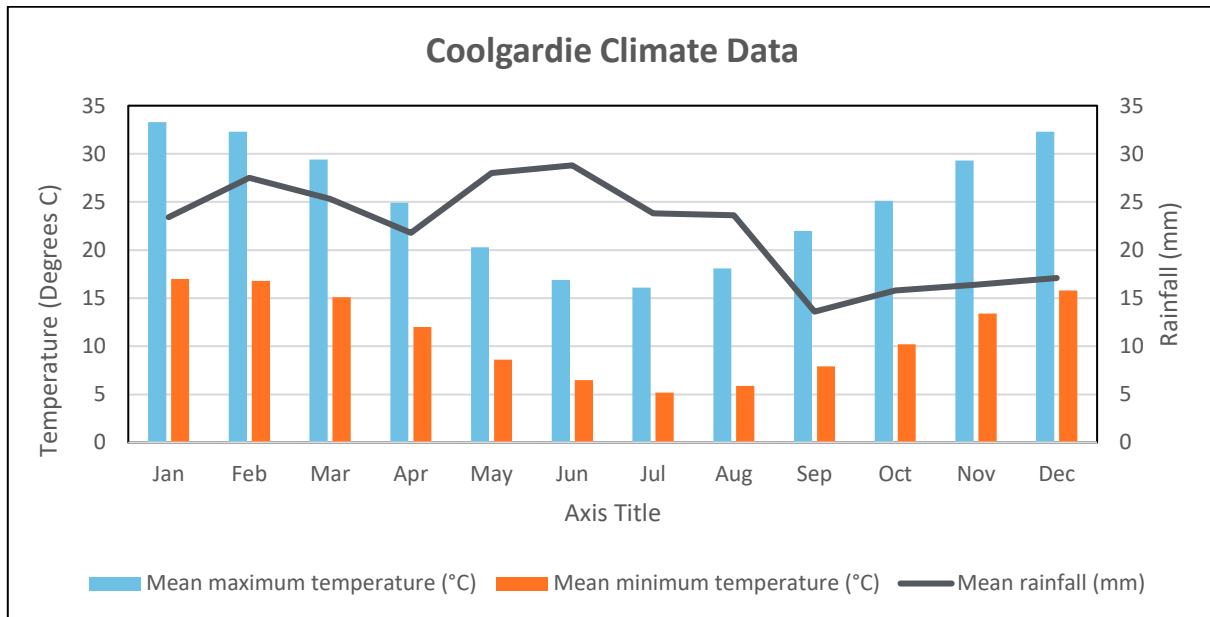


Figure 4: Coolgardie climate data

The average long-term annual rainfall is exceeded by the average annual evaporation rate (approximately 2,640 mm) by a factor of almost 10 to 1. Evaporation exceeds rainfall in all months of the year, with June having the lowest daily evaporation and January having the highest daily evaporation.

Annual exceedance probability (AEP) is defined as the chance that an extreme rainfall event will occur in any given year. Based on AEP calculations by BoM, there is a 1 in 100 (1%) chance that the Project area will receive 50 mm of rain in a 1-hour period, 160 mm for a 24-hour period and 207 mm for a 72-hour period based on AEP calculations (BoM, 2023)

Wind conditions from the Kalgoorlie-Boulder airport weather station (#12038) show that morning wind conditions are predominantly easterlies, north-easterlies, and south-easterlies averaging between 12 and 17 km/hr. Afternoon wind direction is variable, and predominantly westerlies, easterlies and south-easterlies averaging between 13 and 18 km / hr.



## 2.2 Landscape

### 2.2.1 Bioregion

The Interim Biogeographic Regionalisation of Australia (IBRA) divides Australia into 89 bioregions based on major biological, geographical and geological attributes. These bioregions are subdivided into 419 subregions as part of a refinement of the IBRA framework (IBRA 2010).

The Project occurs within the Coolgardie bioregion and the Eastern Goldfields subregion (COO3). The Eastern Goldfields subregion lies on the Yilgarn Craton's 'Eastern Goldfields Terrains'. The relief is subdued and comprises of gently undulating plains interrupted in the west with low hills and ridges of Archaean greenstones and in the east by a horst of Proterozoic basic granulite. The underlying geology is of gneisses and granites eroded into a flat plane covered with tertiary soils and with scattered exposures of bedrock. Calcareous earths are the dominant soil group and cover much of the plains and greenstone areas. A series of large playa lakes in the western half are the remnants of an ancient major drainage line (Cowan, 2001).

The vegetation of the subregion is dominated by Mallees, Acacia thickets and shrub-heaths on sandplains. Diverse Eucalyptus woodlands occur around salt lakes, on ranges, and in valleys. Salt Lake support dwarf shrublands of samphire. Woodlands and Dodonaea shrubland occur on basic granitoides of the Fraser Range.

Soil landscapes and land system mapping of Western Australia describes broad soil and landscape characteristics from regional to local scales, ranging from 1:20,000 to 1:250,000 (DPIRD, 2018). The Survey Area occurs entirely within the BB5 land system, characterised by rocky ranges and hills of greenstones with basic igneous rocks as well as sandplains with brown calcareous loam.

### 2.2.2 Soils





The Coolgardie Goldfields are dominated by calcareous earths which cover much of the plains and greenstone areas. Within the CGO surface soils tend to comprise red, moist, and well graded sands and sand gravels with traces of silt and clay. The underlying geology is of gneisses and granites eroded into a flat plane covered with tertiary soils and with scattered exposures of bedrock.

The Project area lies entirely within the BB5 land system, as classified by the soil landscapes and land mapping system provided from DPIRD. BB5 is characterised by rocky ranges and hills of greenstones with basic igneous rocks as well as sandplains with brown calcareous loams.

#### 8.1.1 Soil characterisation

Mine Earth were commissioned by Focus to undertake a soil resource assessment for the CGO in September 2021, which included four (4) soil sampling locations in undisturbed areas within M 15/877 as shown in Figure 5 overlaid with DPIRD soil landscapes. Soil samples were collected from surface soils up to 200 mm depth, and analysis was undertaken on both 0 – 100mm and 100 – 200 mm fractions to understand their rehabilitation implications. Soil profiles are summarised in Table 2 below.

Table 2. Soil profile descriptions

Photo point	Site	Location	Soil profile	Vegetation
	C1	Flat open woodland	<p>0 – 20cm: weak surface crust transitioning to moderate–strongly structured soil with polyhedral aggregates. A moderate concentration of roots and approximately 10% coarse fragments ranging from 2 to 10mm, decreasing with depth.</p> <p>&gt;20cm: hardpan</p>	Eucalyptus woodland with Acacia understorey
	C2	Rock mid-gentle slope	<p>0 – 20cm: Moderately strong surface crust. Moderately structured soil with polyhedral aggregates. Abundant roots with approximately 30% sub-rounded to sub-angular coarse fragments, 2 to 60mm in size.</p> <p>&gt;20cm: hardpan</p>	Acacia shrubs, 1 to 3m tall with occasional Eucalyptus trees
	C3	Flat open Eucalypt woodland at base of a low rise	<p>0 – 20cm: well-structured clayey soil with polyhedral aggregates. Moderate amount of roots present with approximately 10 to 20% coarse fragments, 2 – 30mm in size, decreasing in abundance and depth.</p> <p>&gt;20cm: hardpan</p>	Open Eucalyptus woodland with Acacia shrubs mid storey (1 to 3m tall) and lower storey (0.5 to 1m tall)
	C4	Top of a low rise	<p>0 – 10cm: moderately to strongly structured soil with polyhedral aggregates. Moderate number of roots with approximately 20 to 30% coarse fragments ranging in size from 2 – 50mm.</p> <p>10 – 20cm: single-grained soil with 30 to 40% calcareous coarse fragments ranging from 2 – 40mm.</p> <p>&gt;20cm: hardpan</p>	Acacia shrubland with occasional Eucalypts

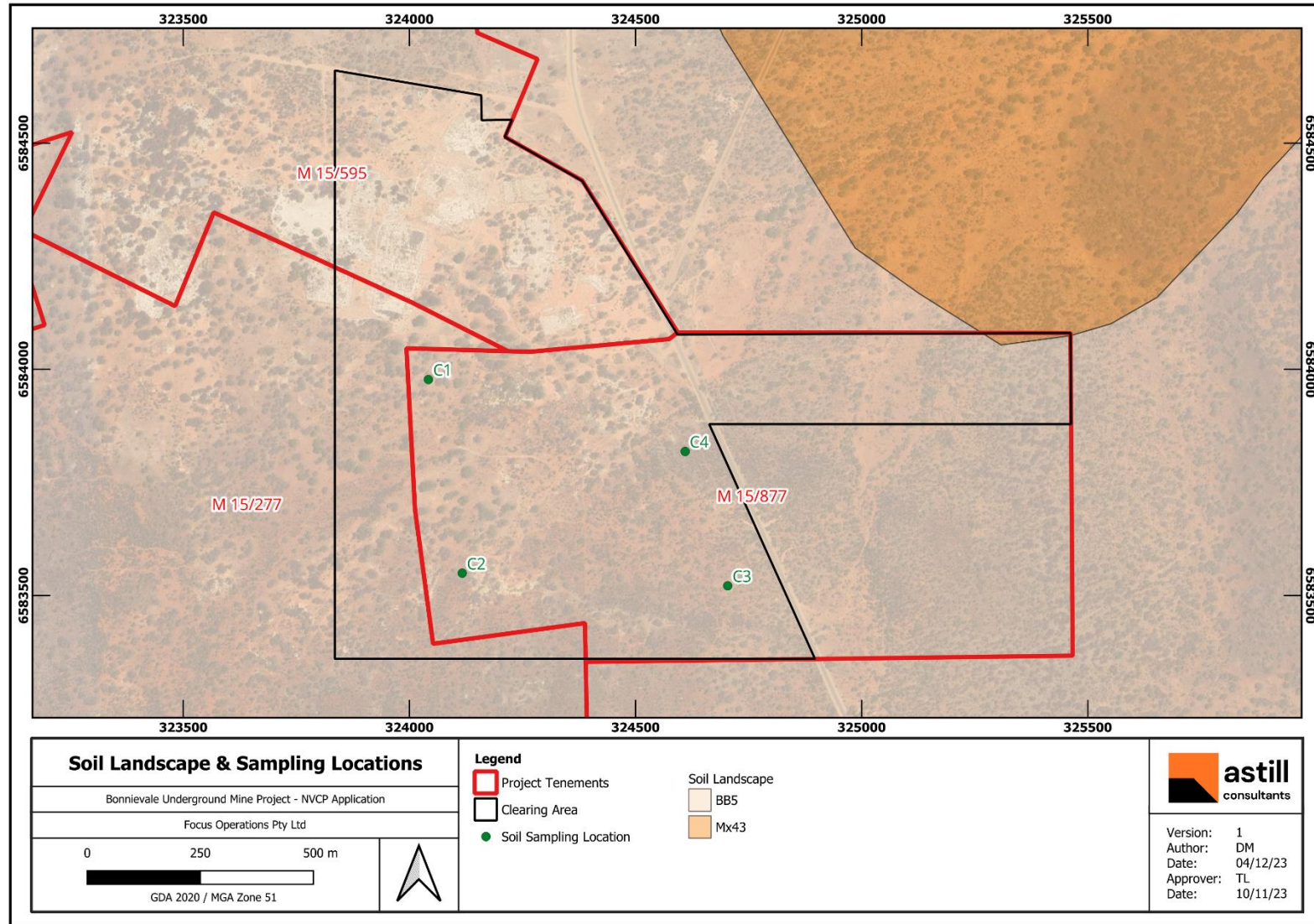


Figure 5: Soil landscape & sampling locations

## 2.3 Biodiversity

### 2.3.1 Biological Surveys

Native vegetation clearing is required to facilitate development of the Project. To support this, multiple biological surveys have been undertaken over the Project area with a summary detailed in Table 3 below. Surveys include both desktop and field assessments to determine the likelihood of significant vegetation flora and fauna within the Project area. It is noted that several of these surveys specifically cover only areas within the Project, while others cover broader areas including areas outside the Project. Biological survey areas are shown in Figure 6 and Figure 7. Relevant biological surveys are provided in **Appendix B**.

*Table 3: Biological surveys*

Survey area	Survey type	Fieldwork date	Limitations identified	Author / reference
CGO (including Bonnievale)	Detailed Flora & Vegetation Basic Vertebrate Fauna & Habitat	November 2021	Partial limitations for Amphibians (season)	360 Environmental (2022)
	Basic Fauna Survey	April 2023	Nil identified	Western Ecological (2023a)
	Desktop Assessment for Subterranean Fauna	N/A	Desktop level assessment only	Invertebrate Solutions (2021)
Bonnievale	Level 1 Flora & Vegetation Assessment	April 2017	Nil identified	Terratree 2017
	Level 1 Fauna Assessment	May 2017	Nil identified	Kingfisher (2017)
	Targeted Malleefowl Survey	July 2023	Nil identified	Western Ecological (2023b)
	Reconnaissance Flora and Vegetation Survey	May & September 2023	Nil identified	NVS (2023)

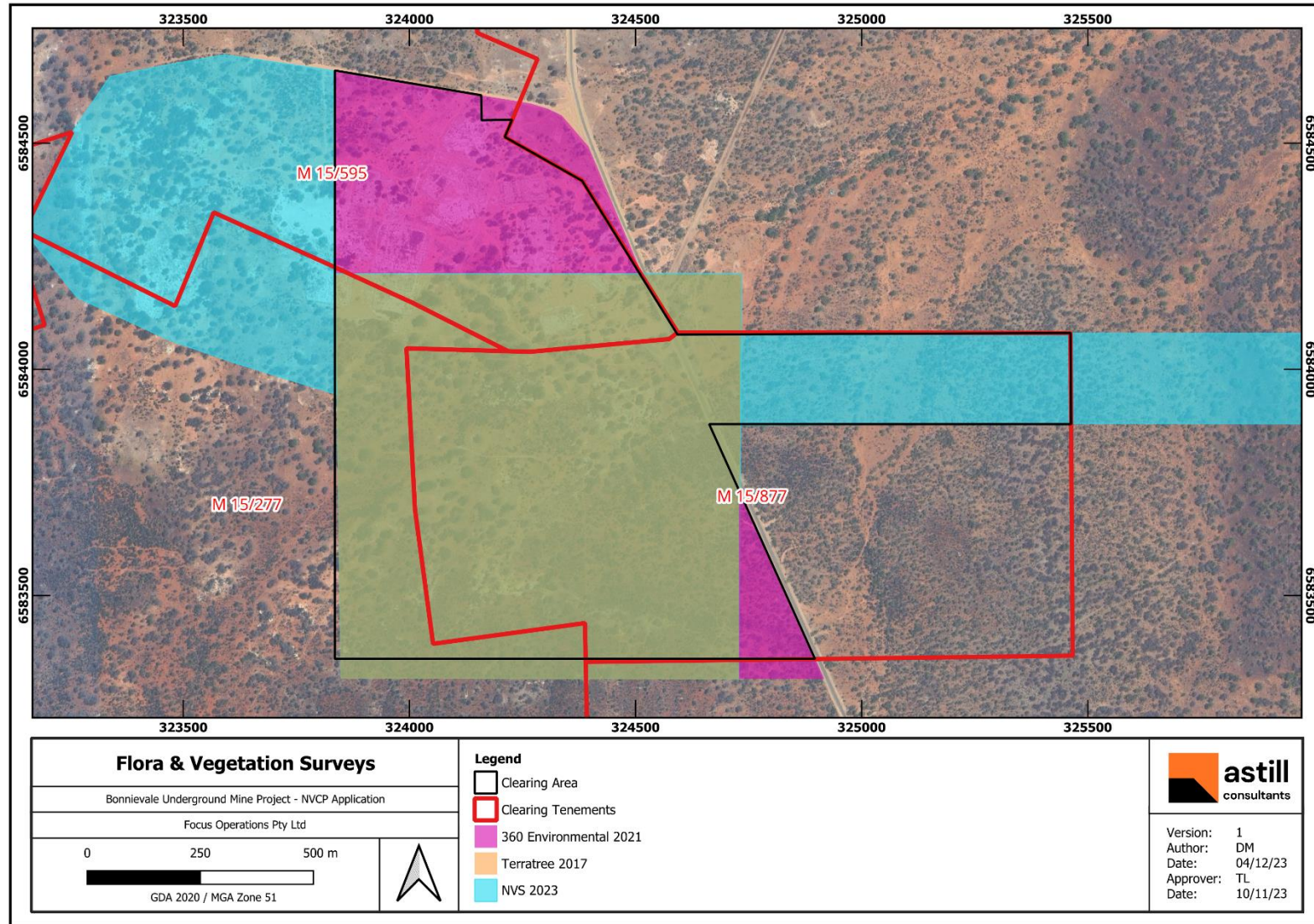


Figure 6: Flora & vegetation surveys

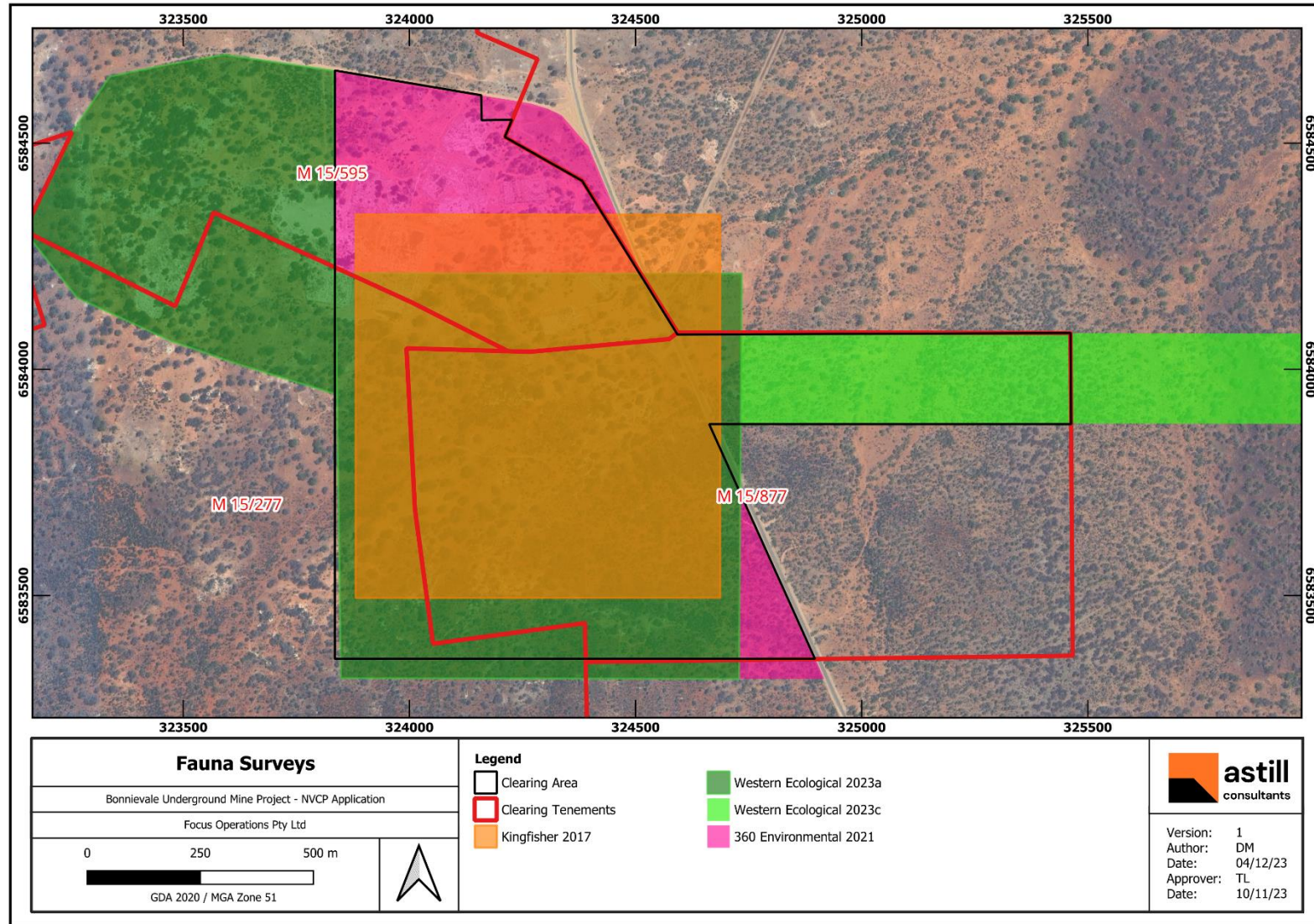


Figure 7: Fauna surveys

## 2.3.2 Vegetation

The Project is located within the Coolgardie Botanical District of the Southwestern Interzone (Beard 1990). This district is comprised primarily of Eucalypt woodlands that become more open with an increase in calcareous soils, and an understorey of bluebush and salt bush becomes more evident. The dominant families and genera include the Mimosaceae (*Acacia* spp.), Myrtaceae (*Eucalyptus* spp.), Chenopodiaceae (*Atriplex* spp. and *Maireana* spp.) and Myoporaceae (*Eremophila* spp.).

Pre-European vegetation association dataset (DPIRD, 2019) indicates that the Project area is located within two vegetation associations. 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). All vegetation associations within the disturbance envelope retain > 95% of their pre-European extent. Development within the disturbance envelope will not significantly reduce the extent of pre-European vegetation associations or increase risk of loss. Vegetation association descriptions and remaining extent are detailed in Table 4 below and shown in Figure 8.

*Table 4: Pre-European vegetation associations*

Vegetation association	Structural description	Floristic description	Extent remaining (%)
Coolgardie 9	Medium woodland	Eucalyptus woodland / <i>Eremophila</i> sparse shrubland. Associated species are coral gum ( <i>E. torquata</i> ) and Goldfields blackbutt ( <i>E. lesouefii</i> )	96.88
Coolgardie 1294	Eucalyptus woodland	Wheatbelt; York gum, salmon gum etc. ( <i>E. loxophleba</i> , <i>E. salmonophloia</i> ). Goldfields; gimlet, redwood etc. ( <i>E. salubris</i> , <i>E. oleosa</i> ). Riverine; rivergum ( <i>E. camaldulensis</i> ). Tropical; messmate, woolybush	96.06

### 2.3.2.1 Vegetation communities

Vegetation assessments were undertaken via establishment of strategically placed area to ensure all distinct vegetation communities were characterised. Across all vegetation surveys, two (2) vegetation communities were mapped within the 360 Environmental (2022) survey area, and six (6) within the Terratree (2017) survey area. Vegetation communities within the Project area are described in Table 5 below.

Table 5: Vegetation communities

Survey Area	Name	Landscape position	Community description
360 Environmental (2022)	EsppEiiSaa	Plains, low hills	<i>Eucalyptus salmonophloia</i> mid isolated trees over a mosaic of <i>E. celastroides</i> , <i>E. clelandiorum</i> , and <i>E. torquata</i> low open woodland over <i>Eremophila interstans</i> subsp. <i>interstans</i> ( <i>Eremophila parvifolia</i> subsp. <i>auricampi</i> ) mid isolated shrubs over <i>Senna artemisioides</i> subsp. <i>artemisioides</i> , <i>S. artemisioides</i> subsp. <i>filifolia</i> , and <i>Atriplex vesicaria</i> low open shrubland
	EsEiiAv	Plains	<i>Eucalyptus salmonophloia</i> mid open woodland over <i>Eremophila interstans</i> subsp. <i>interstans</i> ( <i>Eremophila parvifolia</i> subsp. <i>auricampi</i> , <i>Senna artemisioides</i> subsp. <i>filifolia</i> ) tall to mid isolated shrubs over <i>Atriplex vesicaria</i> low open shrubland
Terratree (2017)	AaDI	Small rise	Low Open Woodland of <i>Eucalyptus griffithsii</i> over Tall Open Shrubland of <i>Acacia acuminata</i> over Mid Open Shrubland of <i>Dodonaea lobulata</i> , <i>Scaevola spinescens</i> and <i>Eremophila decipiens</i> .
	AaPo	Macrochannel	Tall Shrubland of <i>Acacia acuminata</i> , <i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i> and <i>Dodonaea lobulata</i> over Low Open Shrubland of <i>Ptilotus obovatus</i> subsp. <i>obovatus</i> , <i>Enchylaena tomentosa</i> var. <i>tomentosa</i> and <i>Rhagodia drummondii</i>
	AqDIPo	Mid-slope	Tall Shrubland of <i>Acacia quadrimarginea</i> , <i>Casuarina pauper</i> and <i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i> over Sparse Shrubland of <i>Dodonaea lobulata</i> , <i>Senna artemisioides</i> subsp. <i>filifolia</i> and <i>Acacia tetragonophylla</i> over Low Sparse Shrubland of <i>Ptilotus obovatus</i> subsp. <i>obovatus</i> , <i>Eremophila decipiens</i> subsp. <i>decipiens</i> and <i>Sclerolaena diacantha</i> .
	Ec	Lower Slope	Open Forest of <i>Eucalyptus clelandii</i> .
	EgSaEd	Flat	Woodland of <i>Eucalyptus griffithsii</i> and <i>Eucalyptus clelandii</i> over Tall Sparse Shrubland of <i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i> and <i>Eremophila interstans</i> subsp. <i>interstans</i> over Open Shrubland of <i>Senna artemisioides</i> subsp. <i>filifolia</i> , <i>Atriplex nummularia</i> and <i>Eremophila scoparia</i> over Low Sparse Shrubland of <i>Eremophila decipiens</i> , <i>Scaevola spinescens</i> and <i>Exocarpos aphyllus</i> .
	EsAnSs	Flat	Open forest of <i>Eucalyptus salmonophloia</i> , <i>Eucalyptus clelandii</i> and <i>Eucalyptus transcontinentalis</i> over Tall Sparse Shrubland of <i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i> and <i>Eremophila interstans</i> subsp. <i>interstans</i> over Open Shrubland of <i>Atriplex nummularia</i> , <i>Eremophila scoparia</i> and <i>Dodonaea lobulata</i> over Low Sparse Shrubland of <i>Scaevola spinescens</i> , <i>Ptilotus obovatus</i> subsp. <i>obovatus</i> and <i>Exocarpos aphyllus</i> .



### 2.3.2.2 Vegetation Condition

The Project area has been subjected to historical mining disturbances and more recent establishment of exploration activities (tracks and drill pads), and as such the vegetation condition ranges from excellent to completely degraded. The northern portion of the Project area is most heavily impacted, with the southern portion of the site mostly undisturbed and ranging from good to excellent condition. The vegetation condition is summarised in Table 6 below and shown in Figure 9. The majority of clearing is likely to occur within areas of lower vegetation quality.

*Table 6: Vegetation condition*

Survey Area	Vegetation Condition	Area (ha)	% of total
360 Environmental (2022)	Very Good	3.98	3.7
	Good	10.07	9.3
	Completely Degraded	13.70	12.7
Terratree (2017)	Excellent	25.39	23.6
	Good	31.38	29.2
	Degraded	15.68	14.5
	Completely Degraded	7.57	7.0
<b>All</b>	<b>Total</b>	<b>107.77</b>	<b>100</b>

### 2.3.2.3 Significant vegetation

Across all surveys none of the vegetation types mapped are analogous to conservation significant ecological communities. Desktop searches identified no threatened or priority ecological community within 50 km of the Project area. The nearest Environmentally Sensitive Area (ESA) is Rowles Lagoon, some 52 km northwest of the Project.

The BoM Groundwater Dependent Ecosystem (GDE) Atlas identified that the Project area does not contain any GDEs. Vegetation surveys support that there is no vegetation associated with GDEs within the Project area.

The Project area is not located within any listed conservation areas. The nearest conservation area is the Kangaroo Hills Timber Reserve, which is located 11 km to the south of the Project.

The location of nearby ESAs and legislated lands and waters are shown in Figure 10.

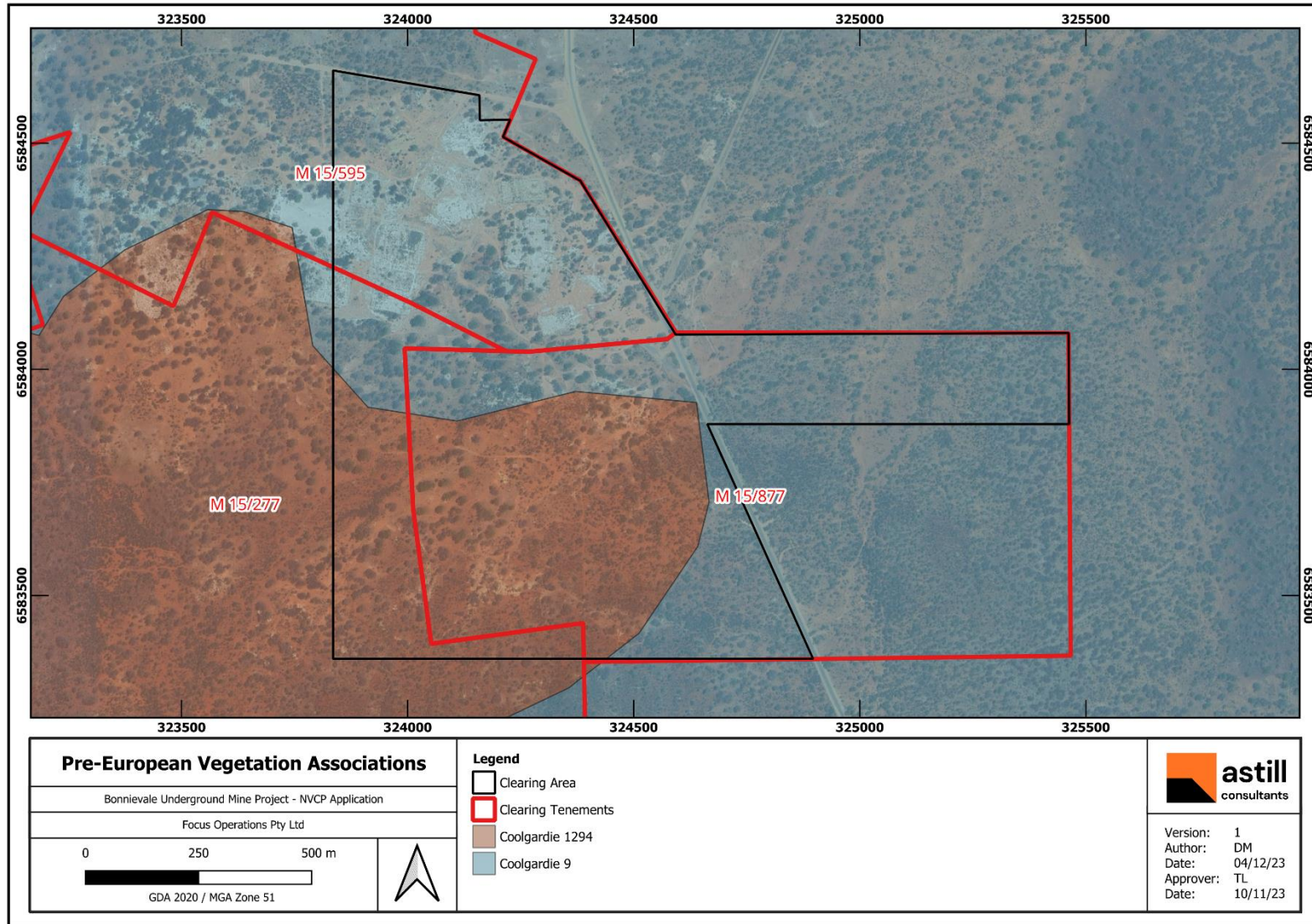


Figure 8: Pre-European vegetation associations

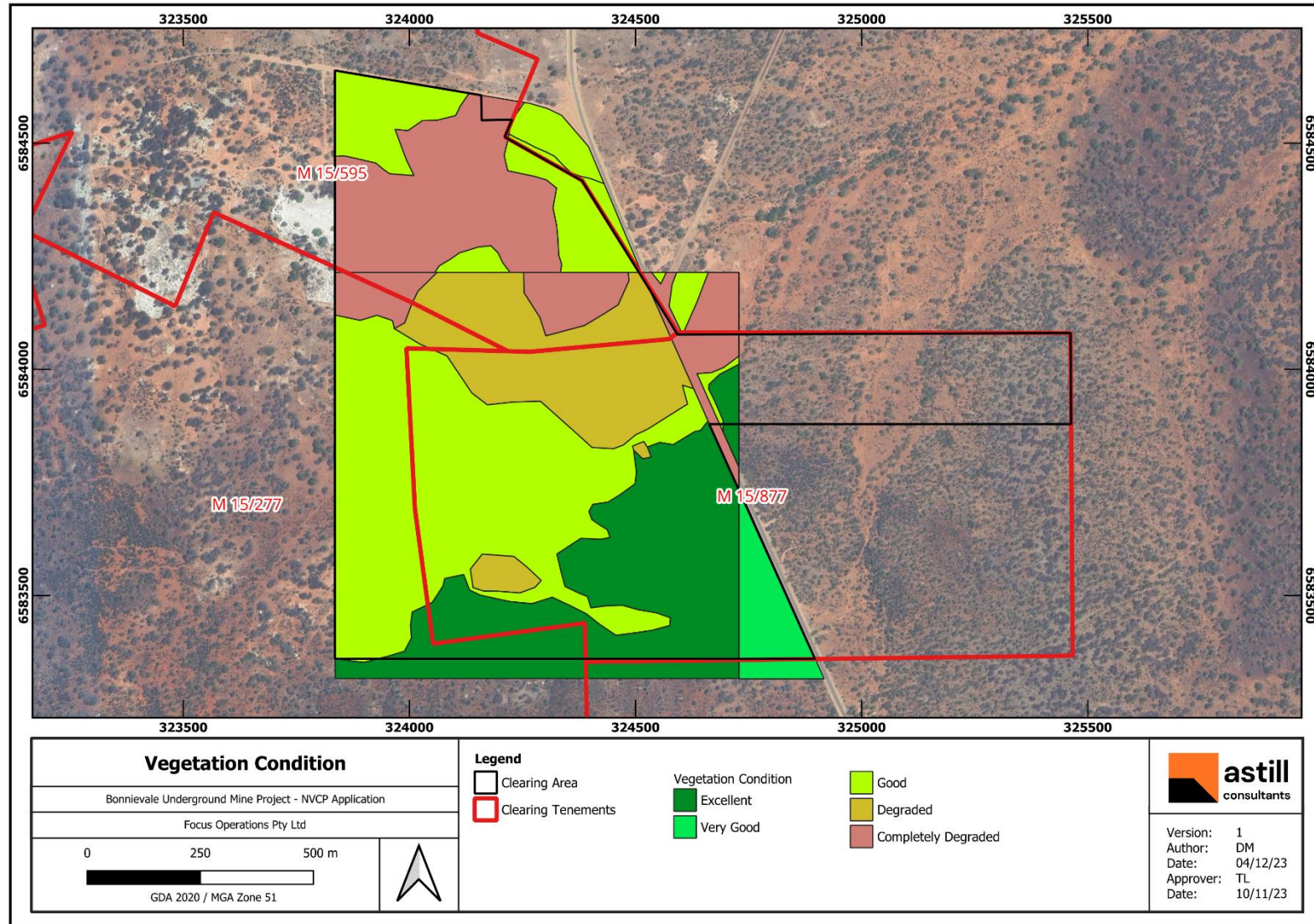


Figure 9: Vegetation condition

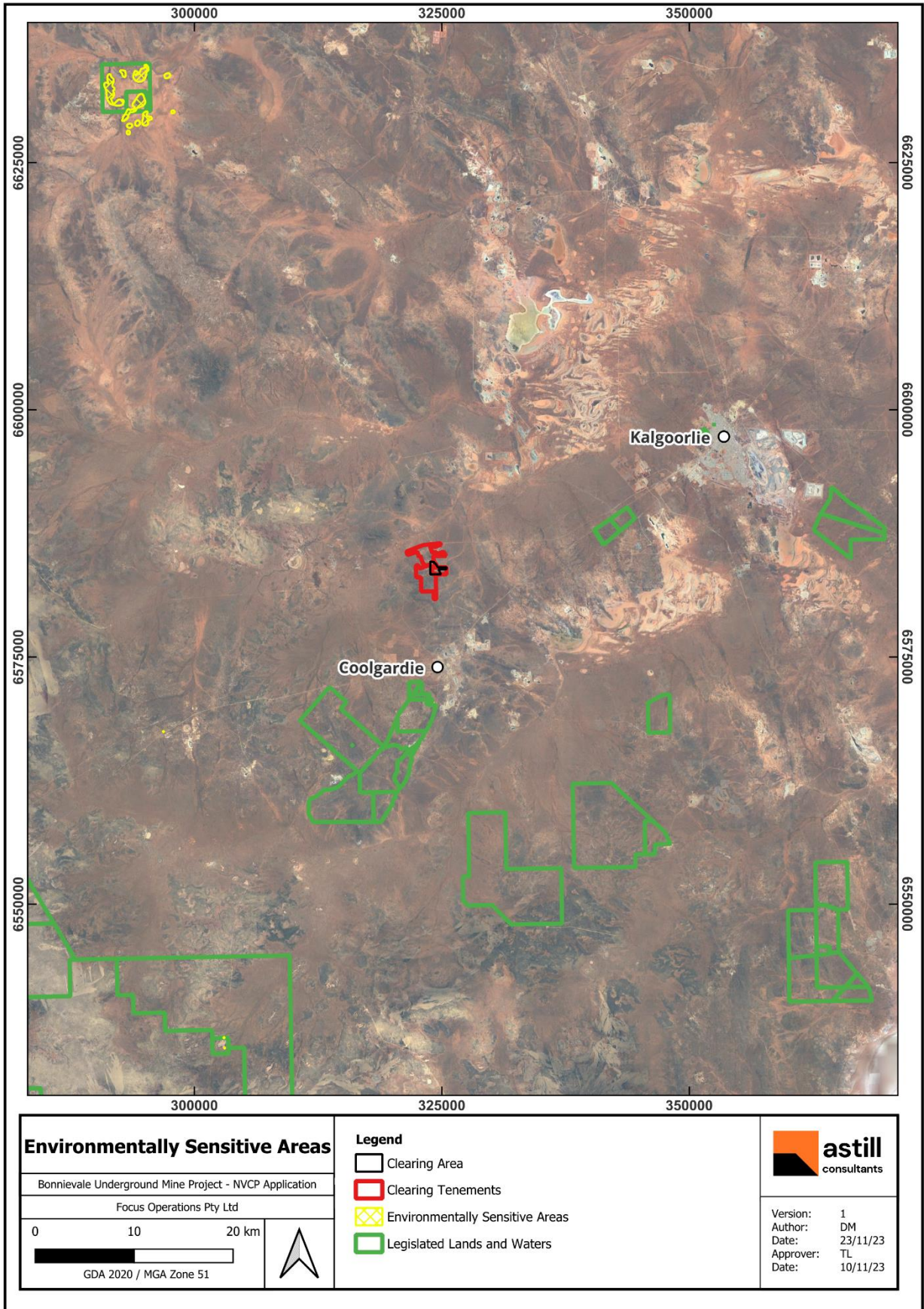


Figure 10: Environmentally sensitive areas

### 2.3.3 Flora

Terratree (2017) found a total of 88 flora species within the survey area, representing 50 genera and 32 families. Dominant families included Chenopodiaceae (13 taxa), Fabaceae (12 taxa) and Scrophulariaceae (9 taxa). Two species were unidentified but were considered unlikely to represent species of conservation significance (Terratree, 2017).

360 Environmental (2022) surveyed a broader area including Bonnievale, and accordingly the larger number of taxa identified (149) includes species from outside the Project area. Dominant families included Chenopodiaceae (26 taxa) and Myrtaceae (15 taxa). Eighteen species were unidentified but were considered unlikely to be species of conservation significance.

The suite of flora taxa recorded during the surveys is considered typical for the area (Beard 1990). A summary of flora surveys is presented in Table 7 below.

*Table 7: Flora abundance*

Survey	Species number (field search)				
	Total	Genera	Families	Unidentified	Dominant families
360 Environmental (2022)*	149	75	35	18	<i>Chenopodiaceae</i> (26 taxa) <i>Myrtaceae</i> (15 taxa)
Terratree (2017)	88	50	32	2	<i>Chenopodiaceae</i> (26 taxa) <i>Fabaceae</i> (12 taxa) <i>Scrophulariaceae</i> (9 taxa)

\*includes areas outside of the Project area within broader CGO survey area

#### 2.3.3.1 Threatened and Priority Flora

Based on database searches, a total of 58 flora species of conservation significance were recorded within 30 km of the Project area, comprising of three (3) Threatened species, 18 'Priority 1' species, six (6) 'Priority 2' species, 28 'Priority 3' species, and three (3) 'Priority 4' species. (Terratree, 2017). No Threatened (Declared Rare) or Priority Flora or Ecological Communities (TECs or PECs) were recorded during field surveys of the Project area.

Following surveys, one (1) 'Priority 1' species, *Acacia websteri* and one (1) 'Priority 3' species, *Eremophila veronica* (Emu Bush) were considered to have a high likelihood of occurring within the broader CGO survey areas (360 Environmental, 2022), however historical records of these species were found closer to Coolgardie, approximately 10 km south from the Project area. Consequently, there is a low risk of Priority flora species being impacted by clearing activities.

### 2.3.3.2 Introduced Flora

A total of four (4) introduced flora species were recorded within the 360 Environmental (2022) survey area, and a total of eight (8) within the Terratree (2017) survey area. No Weeds of National Significance (WoNS) were found within the Project area in either flora survey. A summary of introduced flora identified within surveys are provided in Table 8 below.

*Table 8: Introduced flora*

Survey Area	Species name	Common name	WoNS
360 Environmental (2022)	<i>Agave americana</i>	Century Plant	No
	<i>Crassula ovata</i>	Jade Tree	No
	<i>Salvia verbenaca</i>	Wild Sage	No
	<i>Schinus molle var. areira</i>	-	No
Terratree (2017)	<i>Erodium cicutarium</i>	Common Stork's-bill	No
	<i>Lysimachia arvensis</i>	Scarlet Pimpernel	No
	<i>Monoculus monstrosus</i>	-	No
	<i>Rumex vesicaria</i>	Ruby Dock	No
	<i>Salvia verbenaca</i>	Wild Sage	No
	<i>Sisymbrium erysimoides</i>	Smooth Mustard	No
	<i>Solanum nigrum</i>	Black Nightshade	No
	<i>Sonchus oleraceus</i>	Common sowthistle	No

### 2.3.4 Fauna

Fauna surveys over the Project area have included basic fauna assessments (previously known as level 1 fauna assessments), targeted Malleefowl (*Leipoa ocellata*) surveys, and a subterranean fauna desktop review. Fauna surveys have demonstrated that most fauna identified during field observations are considered to be common and widespread, with fauna abundance by taxa summarised in Table 9 below.

*Table 9: Fauna abundance*







Survey	Species number (desktop search)	Species number (field search)				
		Total	Amphibians	Birds	Mammals	Reptiles
360 Environmental (2022)*	311	61	0	42	10	9
Kingfisher (2017)	290	62	0	47	10	5
Western Ecological (2023a)*	312	34	0	24	4	6
Western Ecological (2023c)	267	21	0	17	2	2


\*includes areas outside of the Project area within broader CGO survey area

#### 2.3.4.1 Fauna habitat

Broad fauna habitats have been mapped in the Project area and described in each biological survey. Fauna habitats are considered relatively common and representative of the local area and are widespread through the region. Fauna habitats with example images are summarised in Table 10 below.

Table 10: Fauna habitats

Survey	Habitat type	Description	Example image
360 Environmental (2022)	Eucalyptus woodland	Mixed <i>Eucalyptus</i> sp. woodlands over <i>Acacia</i> sp. <i>dodonea</i> sp. <i>Eremophila</i> sp. or <i>Melaleuca</i> sp. mixed shrublands.	
	Disturbed areas	Cleared or historically cleared areas including mine pits and borrow pits (often filled with water), bitumen roads, and dirt tracks. .	No photo point
Western Ecological (2023a)	Mallee Eucalyptus Woodland	Mallee Eucalyptus Woodland consisted of mixed mallee eucalypts including <i>E. graffithsii</i> , <i>E. torquate</i> , <i>E. clelandiorum</i> and <i>E. campaspe</i> , over scattered tall shrubs, over <i>Eremophila</i> sp. and <i>Senna</i> sp. on stony slopes.	
	Salmon Gum Woodland	Salmon Gum Woodland habitat consisted of scattered <i>E. salmonophloia</i> trees over a ground cover of scattered low shrubs and herbs, on sandy flats.	
	Acacia Shrubland	Acacia Shrubland habitat consisted of mixed Acacia shrubs, over mixed low shrubs and grasses on sandy soils.	
	Casuarina Shrubland	Casuarina Shrubland habitat consisted of <i>C. pauper</i> (Sheoak) trees, over mixed shrubs, herbs and grasses on stony slopes.	
Western Ecological (2023c)	Eucalyptus Woodland	Eucalyptus Woodland habitat consisted primarily of Cleland's Blackbutt ( <i>Eucalyptus clelandiorum</i> ) with a very limited midstorey and a sparse cover of mixed low shrubs. This habitat occurred on very low slopes in the survey area.	

Survey	Habitat type	Description	Example image
	Salmon Gum Woodland	Salmon Gum Woodland habitat consisted of a canopy of scattered <i>Eucalyptus salmonophloia</i> trees with some smaller eucalypts over a midstorey of mixed shrubs and a ground cover of scattered low shrubs and herbs on sandy loam flats.	

### 2.3.4.2 Significant fauna

Based on the combined desktop and field assessments across surveys, an assessment was carried out on the likelihood of significant fauna species occurring in the Project area. One (1) species of significance (Malleefowl) may occur within the Project area, based on previous records and suitable habitat. Four (4) species of conservation significance can be regarded as possibly utilising the survey area for some purpose at times.

It should be noted that while habitats onsite are considered possibly suitable, some or all may be marginal in extent/quality and therefore the fauna species considered as possibly occurring may in fact only visit the area for short periods as infrequent vagrants. A summary of significant fauna likelihood is detailed in Table 11 below.

*Table 11: Significant fauna likelihood*

Species name	Common name	Conservation status		Assessment	Likelihood
		EPBC Act	BC Act		
<i>Leipoa ocellata</i>	Malleefowl	VU	VU	One inactive malleefowl nest was observed within the survey area (Kingfisher, 2017) and suitable habitat found within survey area.	Likely (transient visitor to Project area)
<i>Dasyurus geoffroii fortis</i>	Chuditch	VU	VU	While largely restricted to the south-west of Western Australia, one Chuditch scat was observed approximately 6.6 km outside of the Project area (360 Environmental, 2022)	Possible
<i>Falco peregrinus</i>	Peregrine Falcon	-	OS	Suitable habitat may be present but unlikely to represent breeding habitat. Survey area may form part of larger home range but unlikely to breed in area. Significant impact unlikely.	Possible
<i>Jalmenus aridus</i>	Inland Hairstreak		P1	Suitable habitat was observed during field surveys.	Possible
<i>Ogyris subterrestris petrina</i>	Arid Bronze Azure Butterfly	CR	CR	Presence of multiple smooth-barked eucalypt species within survey areas suggest suitable habitat may occur.	Possible
<i>Falco hypoleucos</i>	Grey Falcon	-	VU	There is no recent nearby records and preferred nesting habitat is absent. May use the Project area for hunting.	Unlikely



Species name	Common name	Conservation status		Assessment	Likelihood
		EPBC Act	BC Act		
Migratory Shorebirds (Various species)		MI	MI	While there are records of migratory shorebirds within 15 km of the Project area, these are associated with waterbodies (i.e. lakes and dams). There is no suitable habitat for migratory shorebird or waterbird species in the Project area.	Unlikely
<i>Nyctophilus major tor</i>	Central Long-eared Bat	-	P3	Some suitable habitat is present in the the survey area however only one record of this species 82 km to the southeast suggests	Unlikely
<i>Zanda latirostris</i>	Carnaby's Cockatoo	EN	EN	The Project area is approximately 250 km east of its currently known distribution. The closest records are 28 km from the Project area in Kalgoorlie, which appears to be an anomaly.	Unlikely

EN = Listed as Endangered under the EBPC Act and BC Act, VU = Listed as Vulnerable under the EBPC Act and BC Act, MI = Listed as Migratory under the EBPC Act and BC Act

#### 2.3.4.1 Malleefowl (*Leipoa ocellata*)

The Level 1 Fauna Assessment completed in April 2017 found one (1) inactive Malleefowl mound in the Project area, and several other mounds including one (1) active mound further south outside the Project area (Kingfisher, 2017).

A targeted Malleefowl survey was undertaken in July 2023 which observed no active or inactive Malleefowl nests in the survey area (Western Ecological, 2023b). The authors concluded that the habitats present within the survey area were unsuitable for nest construction because they were open with poor cover and disturbed.

A further targeted Malleefowl survey undertaken in September 2023 over an expanded part of the project area did not identify the presence of any mounds in the Project area (NVS 2023).

The species has a wide range, and the habitat present in the Project area is analogous to the surrounding area and is not considered to be significant for this species. Consequently it is unlikely that Malleefowl will be impacted by the proposed clearing.

#### 2.3.4.2 Short Range Endemics

Habitat types in the in the Project area are regionally common and there is a high degree of habitat connectivity present, and therefore it is unlikely that any short range endemic (SRE) species is restricted to the Project area.

#### 2.3.4.3 Subterranean fauna

Invertebrate Solutions (2021) undertook a desktop assessment for subterranean fauna (stygo fauna and troglo fauna) for the CGO, including the Project area. A combination of regional information, geological, hydrogeological and database searches were used to inform the likelihood of subterranean fauna in the project area. The assessment concluded that there was little habitat for subterranean fauna present due to lack of fracturing in fine-grained geological units (Invertebrate Solutions 2021).

#### 2.3.4.4 Introduced fauna

Introduced fauna are widely established within the regional area. A total of four (4) introduced flora species were recorded within the 360 Environmental (2022) survey area, and a total of eight (8) within the Kingfisher (2017) survey area. A summary of introduced fauna is in Table 12 below.

Table 12: Introduced fauna

Survey Area	Species Name	Common Name
360 Environmental (2022)	<i>Capra hircus</i>	Goat
	<i>Bos primigenius taurus</i>	European Cattle
	<i>Canis familiaris</i>	Dog
	<i>Vulpes vulpes</i>	Red fox
	<i>Equus caballus</i>	Horse
	<i>Felis catus</i>	Cat
	<i>Oryctolagus cuniculus</i>	Rabbit
Kingfisher (2017)	<i>Canis lupus dingo</i>	Dingo
	<i>Felis catus</i>	Cat
	<i>Oryctolagus cuniculus</i>	Rabbit

## 2.4 Hydrology

There are no natural surface water bodies or wetlands within the Project area, however numerous ephemeral salt lakes are present within the broader surrounding area. Ephemeral drainage lines within the Project area flow to the north and northeast, as shown in Figure 11. Stormwater flow through the site occurs as shallow overland and concentrated flow, and ultimately reaches Cattle Swamp, approximately 10 km to the northeast.

Significant water bodies in the regional vicinity of the project include Brown Lake (12 km southeast), Red Lake (15 km southeast), White Flag Lake (23 km northeast) and Lake Douglas (20 km east). Clearing of watercourses is likely to have minor impacts to these ephemeral drainage lines. Drainage diversion infrastructure will be installed to ensure that flood risks to the Project are mitigated whilst preserving natural flow paths.

## 2.5 Hydrogeology

The greenstone rocks in the Coolgardie area are described as generally hosting local aquifers containing saline to hypersaline groundwater (Kern, 1995). Groundwater storage is limited to secondary porosity present in discrete, local-scale fractures. Based on the limited interconnectivity of the aquifer zone aquifer recharge is likely to be local (Kern, 1995).

Six (6) groundwater monitoring bores have been installed across the Project area. Groundwater levels vary between 20 to 30 m bgl across this area, and TDS ranges between 14,000 to 25,000 mg / L which is considered hypersaline. Groundwater has limited use outside of mining and limited hydrogeology impacts are anticipated to occur from clearing.

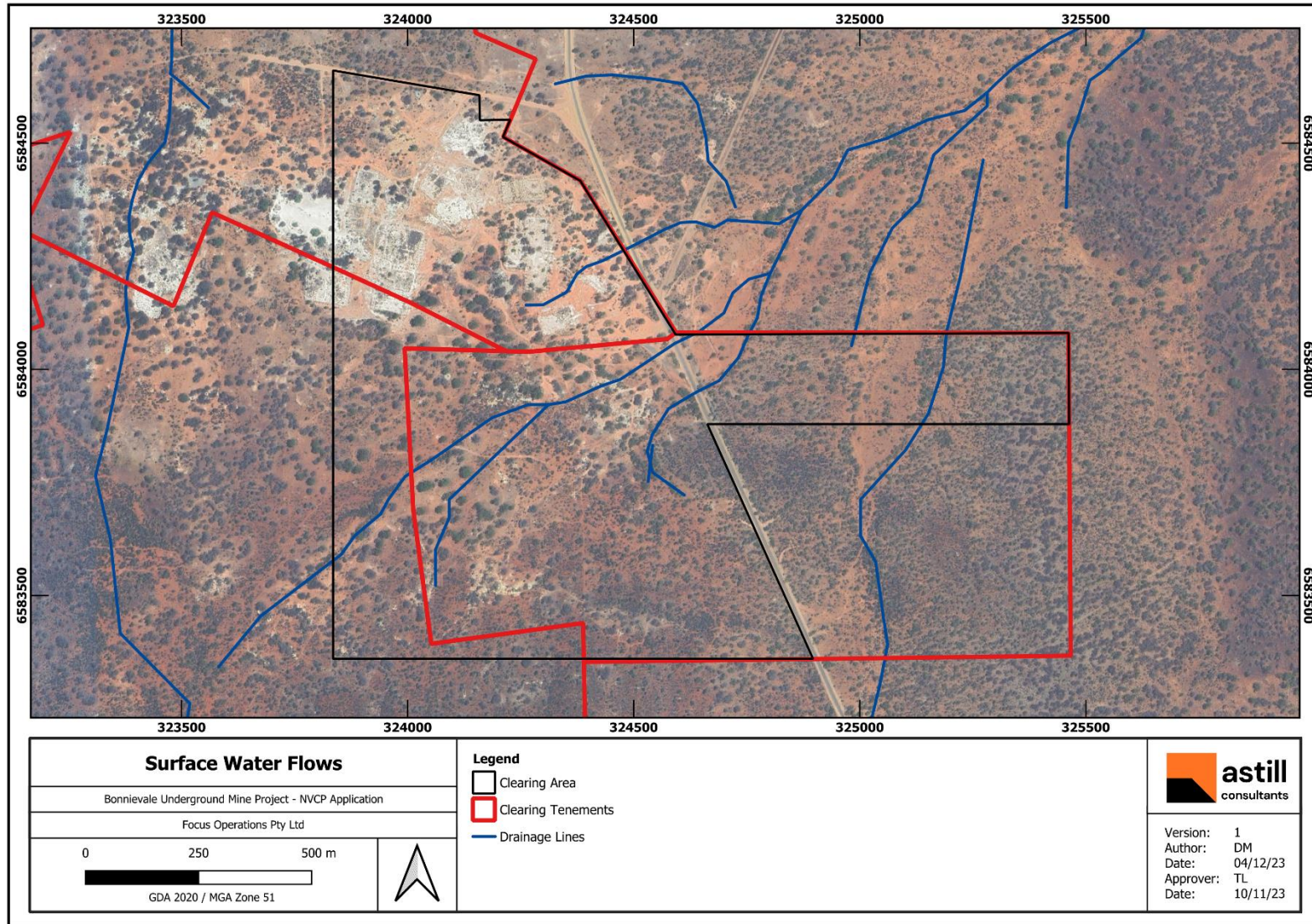


Figure 11: Surface water flows

## 2.6 Heritage

### 2.6.1 Native Title

There is no Native Title Determination across the Project area. There is one registered Native Title claim over the Project area, Marlinyu Ghoorlie Claim (WC2017/007). Focus is currently negotiating an agreement with the Marlinyu Ghoorlie Native Title Claimant group.

### 2.6.2 Aboriginal Heritage

A search of DPLH Aboriginal Cultural Heritage Inquiry System (ACHIS) in October 2023 identified that there are no registered Aboriginal Sites within the Project area. The closest Aboriginal Site is Mingarwee (Porcupine) Hill (ID 34417) located approximately 1.5 km to the southwest of the Project area, as shown in Figure 22.

A heritage survey was conducted by the Marlinyu Ghoorlie Native Title Claim group (MG) and Terra Rosa Consulting (at the request of Marlinyu Ghoorlie Traditional Owners) in June 2022. The survey had the following objectives:

- Identify any archaeological and ethnographic heritage values within the survey area;
- Provide a preliminary boundary of any heritage places identified; and
- Provide relevant and informed heritage management recommendations for heritage values identified within the requested survey area.

No sites of heritage / cultural value were found within the Project area and accordingly no Aboriginal Sites will be impacted by the proposed clearing activities.

### 2.6.3 European Heritage

A search of State Heritage Office inHerit database in October 2023 showed no Statutory Heritage Listings in vicinity of the Project. One local listing (municipal inventory) interacts with part of the disturbance envelope known as “Bonnievale Townsite” (Place 7389) which is listed as “Important as a mining site but probably more important for the associate tale of determination and heroism associated with the Varischetti rescue”. Whilst not a statutory listing, this is a Schedule 1 area pursuant to the Environmental Protection (Clearing of Native Vegetation) Regulations 2004 and requires a Clearing Permit prior to undertaking clearing activities. A plaque dedicated to the Varischetti mine rescue is located approximately 300 m to the west of the disturbance envelope and will not be impacted by the Project.

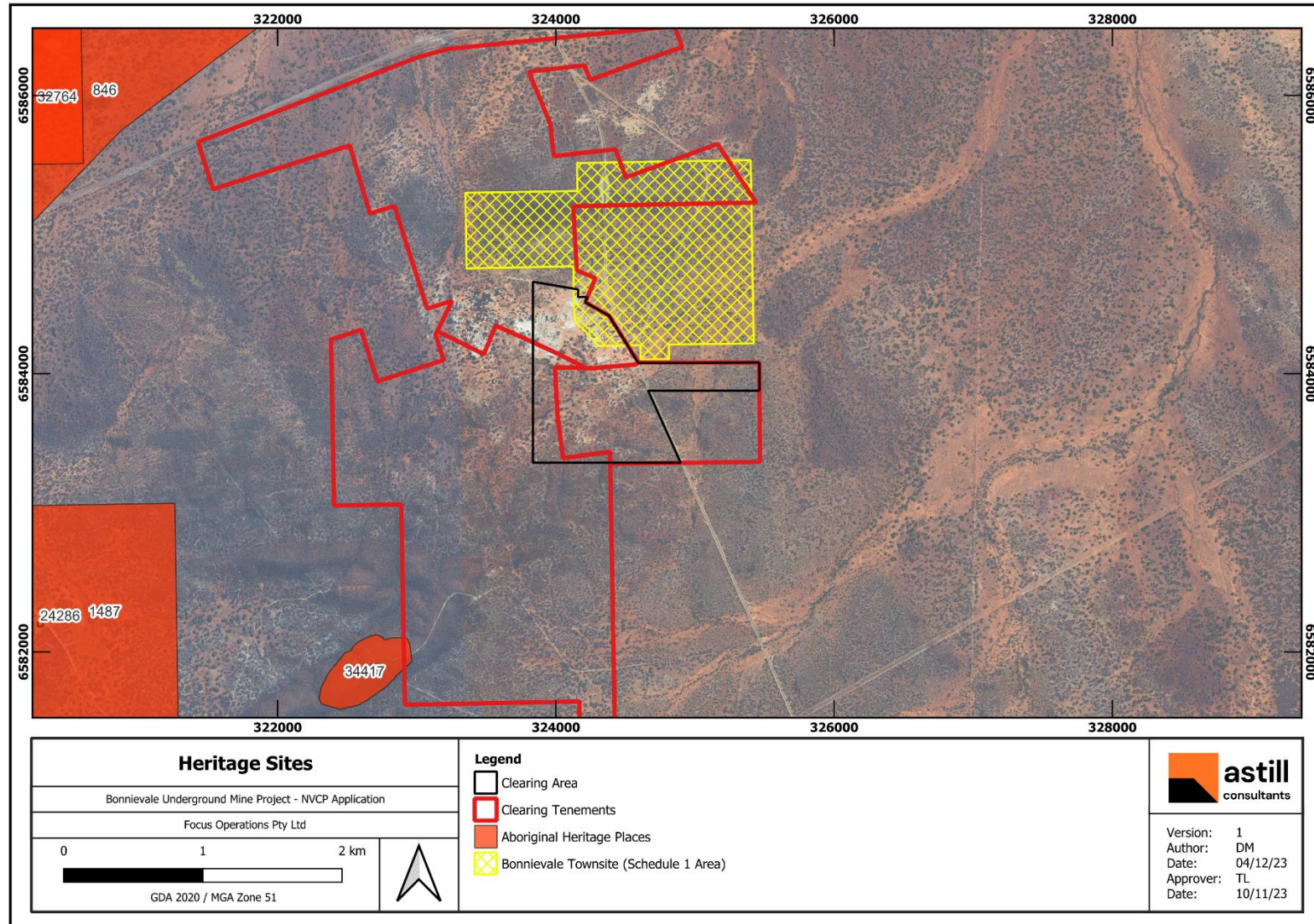


Figure 12: Heritage sites

### 3. Assessment Against Clearing Principles

An assessment against each of the ten clearing principles as defined under Schedule 5 of the EP Act demonstrates that the proposed clearing is unlikely to be at variance with any of the principles as outlined in Table 13 below.

*Table 13: Clearing principles assessment*

Clearing principle	Assessment	Outcome
a) Native vegetation should not be cleared if it comprises a high level of biological diversity.	The Eastern Goldfields subregion is rich and diverse in its flora; however, most species (excluding Priority species) are wide ranging and usually occur in at least one, and often several, adjoining subregions (Cowan, 2001). The Project area is not considered to comprise a high level of biological diversity as the vegetation is typical of the surrounding region. The vegetation within the Project area has been impacted by historical and recent disturbances, reducing vegetation quality.	Unlikely to be at variance to this principle.
b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.	The only conservation significant species likely to utilise the local area is Malleefowl, however, based on recent targeted surveys no active or inactive nests were identified within the Project area. The species has a wide range, and the habitat present is analogous to the surrounding area and is not considered to be significant for this species,	Unlikely to be at variance to this principle.
c) Native vegetation should not be cleared if it includes or is necessary for the continued existence of rare flora.	No Threatened (Declared Rare) or Priority flora species were recorded in the Project area during any of the vegetation and flora surveys. Following surveys, one (1) 'Priority 1' species, <i>Acacia websteri</i> and one (1) 'Priority 3' species, <i>Eremophila veronica</i> (Emu Bush) were considered to have a high likelihood of occurring within the broader CGO survey areas however historical records of these species were found closer to Coolgardie, approximately 10 km south.	Unlikely to be at variance to this principle
d) Native vegetation should not be cleared if it comprises the whole or a part of or is necessary for the maintenance of a threatened ecological community.	There are no known TECs or PECs located within a 50 km radius of the Project area. No vegetation analogous to TECs or PECs were recorded in any of the vegetation and flora surveys.	Not at variance to this principle
e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared	The Project area includes pre-European vegetation associations Coolgardie 9 and 1294, with remaining extents of 96.88% and 96.06% respectively. The clearing represents a minor portion of vegetation in an area well connected to surrounding vegetation.	Not at variance to this 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 permanent watercourses or wetlands in the Project area. Minor ephemeral surface water flowpaths exist through the Project area, however the vegetation associated with these are not distinct to these areas and are not considered riparian vegetation.	Unlikely to be at variance to this principle

<p>g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.</p>	<p>The disturbance envelope contains a significant proportion of historic mining disturbance and newer exploration disturbance and following completion of the Project activities will be rehabilitated in accordance with an approved MCP.</p>	<p>Unlikely to be at variance to this principle</p>
<p>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.</p>	<p>There are no conservation areas or DBCA-managed lands in the Project area. The nearest ESA is Rowles Lagoon, located approximately 52 km northwest, and the nearest conservation area is Kangaroo Hills Timber Reserve, located approximately 11 km to the south of the Project.</p>	<p>Not at variance to this principle.</p>
<p>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.</p>	<p>There are no permanent surface water features in the Project area. Ephemeral drainage lines flow towards Cattle Swamp, 10 km to the northeast. Groundwater in the region is hypersaline and has limited uses outside of the mining industry. Groundwater recharge is slow and will not be impacted by clearing activities.</p>	<p>Unlikely to be at variance to this principle</p>
<p>j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.</p>	<p>The climate is semi-arid with an average annual rainfall under 300 mm. Catchment areas are small and defined by hills to the south and north of the Project area. Ephemeral drainage lines in the Project area are likely to only flow as shallow overland flow. Drainage diversion infrastructure will be installed to ensure that flood risks to the Project are mitigated whilst preserving natural surface water flowpaths.</p>	<p>Unlikely to be at variance to this principle</p>

## 4. Clearing Process

Vegetation will be cleared by mechanical clearing. Clearing areas will be kept to the minimum required for mine activities and undertaken progressively as required. Existing disturbances will be utilised where possible.

### 4.1 Equipment

Equipment required to undertake and support clearing activities may include a combination of:

- Dozer;
- Loader;
- Excavator;
- Water Cart; and
- Service Vehicles.

### 4.2 Methodology

Prior to any clearing, a surface disturbance permit (FML-ENV-FORM-02) will be authorised by Focus' environmental department to ensure clearing is able to be undertaken under a clearing permit or valid clearing exemption (i.e., Regulation 20 of the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*).

The proposed clearing will be demarcated by a surveyor using high visibility tape / survey pegs to ensure clear visual boundaries for operators prior to clearing commencement or alternatively a spotter with handheld GPS will guide clearing. A toolbox meeting will be held between the supervisor and the clearing operator to ensure awareness of clearing areas and any areas to be avoided.

Where practicable raised blade clearing will be used. Where this is not practicable topsoil will be stripped to 200 mm depth and stockpiled for use in rehabilitation, along with removed vegetation. Once clearing has been completed, surveyors will complete a pickup of cleared areas and provide the data to the environmental department for their records and external reporting obligations.

### 4.3 Rehabilitation

Rehabilitation of cleared areas will occur in accordance with the CGO Mine Closure Plan (MCP) which is being revised to include the Project and will be submitted alongside the MP to DMIRS.



## 5. Environmental Management

An Environmental Management Plan (EMP) for the CGO was updated in May 2023. This updated EMP outlines the Environmental Management System (EMS) and management strategies and procedures for key environmental areas including those that related to clearing activities (i.e., air quality, fauna, land and soils, vegetation, and weeds). Applicable management measures are summarised below.

### 5.1 Air quality

Dust is generated from clearing activities, topsoil stripping and spreading. Excessive dust can increase local particulate levels, impacting surrounding vegetation and sensitive receptors.

The following management measures will be implemented to mitigate air quality impacts:

- Weather conditions are monitored, and dust impacts are assessed during clearing;
- Topsoil stripping and spreading activities will be restricted if dust cannot be adequately controlled during periods of high winds; and
- Water carts are available and utilised for wetting down of soils as required.

### 5.2 Land and soils

Land and soils may be impacted by clearing activities including minor hydrocarbon spills and poor topsoil stripping and handling practises. These impacts may have long term effects on rehabilitation performance.

The following management measures will be implemented to conserve land and soil resources:

- Regular inspections and maintenance of machinery including daily pre-starts;
- Spill kits closely available during clearing activities;
- Stripping topsoil to a maximum depth of up to 200 mm;
- Topsoil stripping to be undertaken as close as possible to commencement of activities; and
- Soils to be paddock-dumped into stockpiles of no greater than 2 m in height and have adequate distance between them to create a series of mounds and troughs.

### 5.3 Fauna

Fauna impacts (vehicle strike) during clearing activities may result in injury or death of native fauna or livestock. Whilst not all incidents are avoidable, impacts can be minimised.

The following management measures will be implemented to reduce the risk to fauna:

- Speed limits will be signed and enforced.
- Any injury or death of fauna will be recorded and investigated;
- Access to food wastes will be minimised by ensuring effective storage and disposal; and
- Personnel are prohibited from direct contact with fauna, including feeding.

## 5.4 Vegetation

Vegetation clearing can be minimised through design controls and ensuring that clearing only occurs as required.

The following management measures will be implemented to minimise vegetation clearing:

- Implementation of boxcut excavation for mine design rather than open pit;
- Utilising existing disturbances where possible for mine infrastructure;
- Choosing paths of least resistance through vegetation when siting roads and other linear infrastructure (where practicable); and
- Retention of canopy trees where possible.

## 5.5 Weeds

Activities which disturb land and soils including clearing have the potential to create favourable environments for weed infestation. Weeds can be difficult to eradicate once introduced and prevention of weed infestation has long term benefits for rehabilitation outcomes.

The following management measures will be implemented to manage weed impacts:

- All vehicles and equipment arriving on site will be free of soil, seeds, and vegetative matter;
- Movement of vehicles and equipment will be restricted to areas to be cleared; and
- Weed spray programs may be implemented on a seasonal basis to eradicate identified weed infestations.

## 6. References

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Western Ecological (2023c). Basic Fauna Survey – Bonnievale Pipeline Corridor. Prepared for Focus Minerals Ltd August 2023.

## 7. Appendices

### **Appendix A:** Proof of ownership

### **Appendix B:** Biological surveys

1. Bonnievale Flora and Vegetation Assessment (Terratree 2017)
2. CGP Biological Surveys (360 Environmental 2022)
3. Bonnievale Level 1 Fauna Assessment (Kingfisher 2017)
4. CGP Basic Terrestrial Fauna Survey Report (Western Ecological 2023a)
5. Targeted Malleefowl Survey – Bonnievale (Western Ecological 2023b)
6. Reconnaissance Flora and Vegetation Survey of Bonnievale Project Area (NVS 2023)

## **Appendix A: Proof of ownership**

## **Appendix B: Biological surveys**