

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:CPS 8574/1Permit Holder:FMR Investments Pty LtdDuration of Permit:9 January 2020 to 9 January 2030

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

PART I – CLEARING AUTHORISED

- **1. Purpose for which clearing may be done** Clearing for the purpose of material extraction (clay).
- 2. Land on which clearing is to be done Lot 102 on Deposited Plan 40393, Karramindie
- 3. Area of Clearing

The Permit Holder must not clear more than 7 hectares of native vegetation within the area cross-hatched yellow on attached Plan 8574/1.

4. Duration of clearing

This Permit does not authorise the Permit Holder to clear native vegetation after 9 January 2025.

5. Application

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

PART II - MANAGEMENT CONDITIONS

6. Avoid, minimise and reduce the impacts and extent of clearing

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:

- (a) avoid the clearing of native vegetation;
- (b) minimise the amount of native vegetation to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

7. Weed control

When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no known *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

8. Retain vegetative material and topsoil, revegetation and rehabilitation

The Permit Holder shall:

- (a) Retain the vegetative material and topsoil removed by clearing authorised under this Permit and stockpile the vegetative material and topsoil in an area that has already been cleared.
- (b) At an *optimal time* within 12 months following completion of material extraction, *revegetate* and *rehabilitate* the areas not required for the purpose of which they were cleared under this permit, by:
 (i) ripping the ground on the contour to remove soil compaction; and
 - (ii) laying the vegetative material and topsoil retained under condition 8(a) on the cleared area(s).
- (c) Within 24 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 8(b) of this Permit:
 - (i) engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and
 - (ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under condition 8(c)(i) of this Permit will not result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, *revegetate* the area by deliberately *planting* and/or *direct seeding* native vegetation that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area and ensuring only *local provenance* seeds and propagating material are used.
- (d) Where additional *planting* or *direct seeding* of native vegetation is undertaken in accordance with condition 8(c)(ii) of this permit, the Permit Holder shall repeat condition 8(c)(i) and 8(c)(ii) within 24 months of undertaking the additional *planting* or *direct seeding* of native vegetation.
- (e) Where a determination by an *environmental specialist* that the composition, structure and density within areas *revegetated* and *rehabilitated* will result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, as determined in condition 8(c)(i) and (ii) of this permit, that determination shall be submitted for the *CEO*'s consideration. If the *CEO* does not agree with the determination made under condition 8(c)(ii), the *CEO* may require the Permit Holder to undertake additional *Planting* and *direct seeding* in accordance with the requirements under condition 8(c)(ii).

PART III - RECORD KEEPING AND REPORTING

9. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit, in relation to the clearing of native vegetation authorised under this Permit:

- (a) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
- (b) the date that the area was cleared;
- (c) the size of the area cleared (in hectares);
- (d) actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 6 of this Permit.
- (e) actions taken to minimise the risk of the introduction and spread of *weeds* in accordance with condition 7 of this Permit.
- (f) In relation to the revegetation of areas pursuant to condition 8 of this Permit.
 - (i) the location of any area revegetated and rehabilitated recorded as a shapefile;
 - (ii) a description of the revegetation and rehabilitation activities undertaken;
 - (iii) the size of the area revegetated and rehabilitated (in hectares);
 - (iv) the date that the area was revegetated and rehabilitated; and
 - (v) a copy of a report(s), prepared by an environmental specialist, detailing the revegetation and rehabilitation activities undertaken and results for the monitoring of density, diversity, structure and weed cover.

10. Records must be kept

- (a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:
 - (i) of records required under condition 9 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding calendar year.
- (b) If no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding calendar year, a written report confirming that no clearing under this permit has been carried out, must be provided to the *CEO* on or before 30 June of each year.

(c) Prior to 9 October 2029 the Permit Holder must provide to the *CEO* a written report of records required under condition 9 of this Permit where these records have not already been provided under condition 10(a) of this Permit.

DEFINITIONS

The following meanings are given to terms used in this Permit:

CEO means the Chief Executive Officer of the Department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*;

direct seeding means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

environmental specialist: means a person who holds a tertiary qualification in environmental science or equivalent and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit, or who is approved by the CEO as a suitable environmental specialist.

fill means material used to increase the ground level, or fill a hollow;

mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

optimal time means the period from November to December;

planting means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;

rehabilitate/ed/ion means actively managing an area containing native vegetation in order to improve the ecological function of that area;

revegetate/ed/ion means the re-establishment of a cover of *local provenance* native vegetation in an area using methods such as natural *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.

weed/s means any plant -

- (a) that is a declared pest under section 22 of the Biosecurity and Agriculture Management Act 2007; or
- (b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or
- (c) not indigenous to the area concerned.

Ryan Mincham 2019.12.10 15:08:49 +08'00'

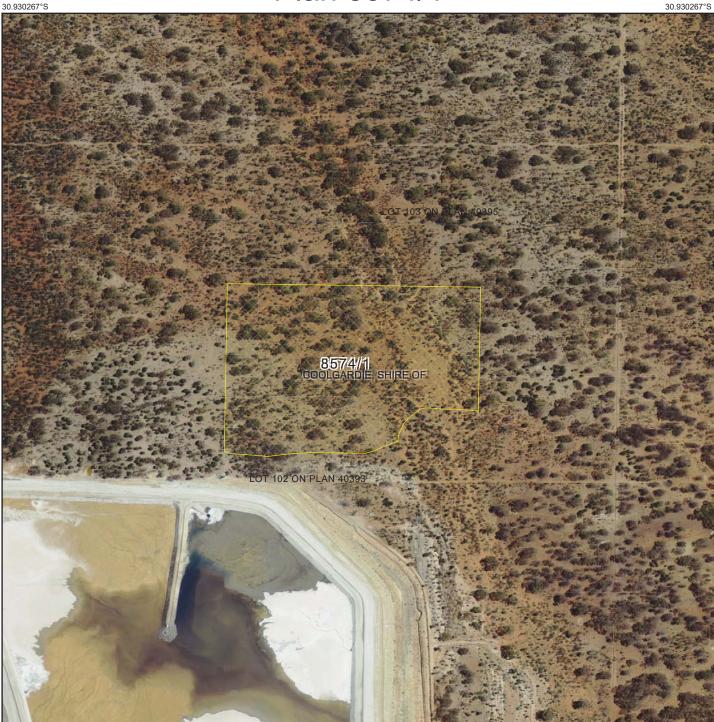
Ryan Mincham MANAGER NATIVE VEGETATION REGULATION

Officer delegated under section 20 of the *Environmental Protection Act 1986*

10 December 2019

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Plan 8574/1



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GOVERNMENT OF WESTERN AUSTRALIA WA Crown Copyright 2019

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Legend N 200m Imagery 1:4,695 (Approximate when reproduced at A4) GDA 94 (Lat/Long) **Clearing Instruments Activities** Geocentric Datum of Australia 1994 Ryan Mincham 2019.12.10 15:06:28 Local Government Authority +08'00' Date Officer with delegated authority under Section 20 of the Environmental Protection Act 1986



1. Permit application Permit application No.: Permit type:	details 8574/1 Purpose	Permit		
.2. Applicant details Applicant's name:	FMR Inve	estments Pty Ltd		
I.3. Property details Property: Local Government Author Localities:		on Deposited Plan 40393, Karraminde Coolgardie ndie		
.4. Application Clearing Area (ha) N 7		ethod of Clearing For the purpo echanical Removal Extractive Ind		
.5. Decision on applic Decision on Permit Applic Decision Date: Reasons for Decision:	tation: Granted 10 Decer The clear the clear 510 of t clearing the rema	mber 2019 ring permit application was received on 26 June 20 ring principles, planning instruments and other m the <i>Environmental Protection Act 1986</i> . It has be may be at variance with clearing principle (f) and aining clearing principles. egated Officer noted that the proposed clearing in association with a watercourse, however determ	atters in acco een conclude is not likely to may impact o nined that the	ordance with set of that the propo of be at variance on native vegeta proposed clearin
Clearing Description:	that the adjacent native ve The application Deposited Plan The application woodland; salme A reconnaissan	to have any significant environmental impacts. The proposed clearing may increase the risk of weed introduction. Weed management measures egetation. It is to clear up to clear seven hectares of native 40393, Karramindie, for the purpose of clay extract area is mapped as three Beard vegetation ass on gum & gimlet (Shepherd et al, 2001).	s being introd will minimise ve vegetation ction. ociation 9, de	duced or spread impacts to adja within Lot 102 escribed as Med
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Clearing Description:	that the adjacent native ve The application Deposited Plan The application woodland; salm A reconnaissan identified the fol Vegetation Group Malle woodlands and	proposed clearing may increase the risk of weed native vegetation. Weed management measures egetation. a is to clear up to clear seven hectares of native 40393, Karramindie, for the purpose of clay extract area is mapped as three Beard vegetation ass on gum & gimlet (Shepherd et al, 2001). the flora/vegetation and fauna survey undertaken llowing vegetation types within the application area Vegetation Type Sparse mallee shrubland of <i>E. griffithsii</i> over mid open shrubland of <i>Eremophila scoparia</i> and low open chenopod shrubland of <i>Atriplex</i>	s being introd will minimise ve vegetation ction. ociation 9, de h by Botanica a: Area (ha) 2.2 2.7	duced or spread impacts to adja within Lot 102 escribed as Med

The condition and structure of the vegetation under application was obtained via a reconnaissance flora/vegetation and fauna survey undertaken by Botanica Consulting (2018). The survey notes all three vegetation to be in a good (Keighery, 1994) condition with disturbance to the structure caused by historical clearing and grazing activities within the application area.

Soil Type: The application area is mapped within land subsystems 266BB described as Rocky ranges and hills of greenstones-basic igneous rocks (Schoknecht et al., 2004).

Comment:

The local area referred to in the below assessment is defined as the area within a 10 kilometre radius of the application area.

Figure 1: Map of application area

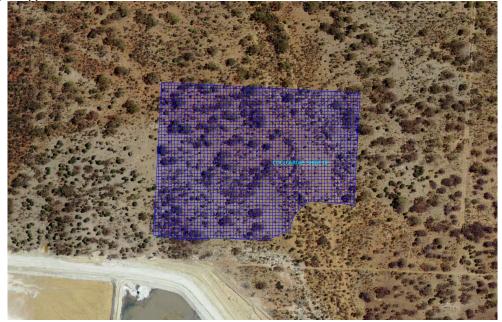


Figure 2: Photographs of vegetation within the application area



Photo 1: Woodlands and shrublands (a)



Photo 2: Woodlands and shrublands (b)



Photo 3: Eucalypt woodlands

3. Assessment of application against clearing principles

The application is to clear seven hectares of native vegetation for the purpose of extractive industry. The vegetation under application is in a good (Keighery, 1994) condition (Botanica Consulting, 2019) and has been subject to historical disturbances from clearing and cattle grazing.

According to available databases from the Department of Biodiversity, Conservation and Attractions (DBCA), eight priority flora species and one threatened flora species have been recorded within the local area. Of these, the one threatened flora species and four priority flora species have been recorded from the same soil and vegetation types as those found within the application area.

- Chrysocephalum apicalatum subsp. Noresemanense (Priority 3) is known from 17 records associated with Eucalyptus transcontinentalis, open Low Woodland to arwinia sp. Karonie (K. Newbey 8503) and Jacksonia arida low shrubland with emergent Acacia ligulata and Bossiaea walkeri (Western Australian Herbarium, 1998). The nearest record of this species is approximately 4.8 kilometres from the application area;
- *Gastrolobium graniticum* (Threatened) is known from 43 records at sites generally supporting sand, sandy loam, granite, margins of rock outcrops (Granite), along drainage lines (Western Australian Herbarium, 1998). The nearest record of this species occurs 5.4 kilometres from the application area;
- Acacia websteri (Priority 1) is known from 21 records at sites generally associated with red sand, clay or loam in low-lying areas, flats. (Western Australian Herbarium, 1998). The nearest record of this species approximately 5.4 kilometres from the the application area;
- *Eremophila veronica* (Priority 3) is known from 15 records at sites generally associated with stony clay, clay loam and lateritic breakaways (Western Australian Herbarium, 1998). The nearest occurrence is approximately 6.8 kilometres from the application area;
- Eremophila caerulea subsp. Merrallii (Priority 4) is known from 23 records and is generally associated with sand, clay or loam soils on undulating plains (Western Australian Herbarium, 1998). The nearest occurrence is approximately 6.8 kilometres from the application area.

The flora/vegetation and fauna survey undertaken by Botanica Consulting (2019) considered the application area had suitable habitat for the following abovementioned flora species; *Acacia websteri, Chrysocephalum apicalatum* subsp. Noresemanense and *Eremophila caerulea* subsp. Merrallii (Botanica Consulting, 2019). The survey also considered the application area had possible suitable habit for a further three priority species (Botanica Consulting, 2019). However, none of six priority flora species were recorded within the application area and noting the large amount of suitable habitat within the local area, the application area is unlikely to represent significant habitat for any priority of threatened flora known to occur within the local area.

According to available databases, the malleefowl (*Leipoa ocellata*) is the only recorded fauna species specially protected under the *Biodiversity Conservation Act 2016* which is known to occur within the local area (DBCA, 2007-). The malleefowl occurs in shrublands and low woodlands that are dominated by mallee vegetation (Department of the Environment and Energy [DotEE], 2015a). There has been a significant decline in malleefowl numbers, attributed to loss of vegetation due to clearing for agricultural purposes, fox predation and the degradation of habitat by fire (DotEE, 2015a). The malleefowl prefers light soils and areas with an abundance of leaf litter, used in the construction of nesting mounds (DSEWPAC, 2012). There are larger areas of intact native vegetation throughout the local area that provides suitable habitat for malleefowl, while there is also a lack of leaf litter within the application area suggesting the application area is unlikely to provide nesting habitat (Botanica Consulting, 2019). The flora/vegetation and fauna survey found no evidence of the species during the field survey, however, it is possible that transient, non-breeding individuals may occasionally occur throughout the application area (Botanica Consulting, 2019). Noting the above, the application area is unlikely to provide significant habitat for the malleefowl.

According to available databases, there have been no state listed priority or threatened ecological communities known to occur within 10 kilometres of the application area. The flora/vegetation and fauna survey undertaken by Botanica Consulting (2019) identified three vegetation types within the application area, none of these represented a priority or threatened ecological community.

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001). The remaining extents of native vegetation within the bioregion, local government authority and mapped vegetation associations are above the 30 per cent threshold (Government of Western Australia, 2018). Aerial imagery indicates that the local area retains approximately 80 per cent native vegetation cover. Noting that the application area does not occur within an extensively cleared landscape or contain significant habitat for conservation significant fauna or flora, it is considered that the vegetation within the application area is unlikely to be a significant remnant.

According to available databases, one minor non-perennial watercourse (seasonally inundated) intersects with the application area. The flora/vegetation and fauna survey described this area as an open depression, however, no riparian vegetation was identified within the survey area (Botanica Consulting, 2019). Notwithstanding, the occurrence of the minor non-perennial watercourse suggests that the vegetation may be growing in association with an environment associated with a watercourse.

According to available databases, there are two privately managed conservation areas within the local area. None of these conservation areas are directly adjacent to the application area and are separated from the application area by developed land and other areas of remnant vegetation. Noting this, the proposed clearing is not likely to impact on the environmental values of these conservation areas.

Noting the extent of the proposed clearing within a highly vegetated landscape, the proposed clearing is not likely to result in appreciable land degradation or deterioration in the quality of surface or underground water, and is not likely to cause or exacerbate the incidence or intensity of flooding.

The proposed clearing may be at variance with Principle (f) and is not likely to be at variance with the remaining clearing Principles.

Planning instruments and other relevant matters.

The application was advertised on the Department of Water and Environmental Regulation's website on 26 July 2019 for a 14 day submission period. The application was re-advertised on 11 September 2019 for a further 7 days due to a change in the purpose of the clearing. No submissions were received during either of the submission periods.

The Shire of Coolgardie (2019) advises that it has no objection to the proposed clearing, however, notes the following in relation to their Town Planning Scheme;

- the site is referred to as Lot 102 on Deposited Plan 40393;
- from preliminary investigations the site is private land and not subject to the provisions of the Mining Act;
- the provisions of the Planning and Development Act apply unless exempt by the Mining Act;
- under the Shire's Local Planning Scheme the use of the site for clay extraction falls within the definition of "extractive industry', which is a discretionary use on land zoned rural under the Scheme; and
- planning approval would be required by the Shire under the Scheme.

No registered Aboriginal Sites of Significance occur within the application area.

4. References

Botanica Consulting (2019) Reconnaissance Flora/Vegetation & Fauna Survey. Greenfields Mill-Borrow Pit Prepared For FMR Investments Pty Ltd (DWER Ref:A1806081).

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra. Department of Biodiversity Conservation and Attractions (DBCA) (2007-) NatureMap: Mapping Western Australia's Biodiversity.

Department of Parks and Wildlife. URL: http://naturemap.dpaw.wa.gov.au/. Accessed November 2017

Department of the Environment and Energy (DotEE) (2015a) 'Leipoa ocellata' in Species Profile and Threats Database, Department of the Environment, Canberra

Government of Western Australia (2018). 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2018. WA Department of Parks and Wildlife. Perth.

Jones, A. (2015) Threatened and Priority Flora List, 11 November 2015. Department of Parks and Wildlife: Kensington, WA.

- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Schoknecht, N., Tille, P. and Purdie, B. (2004) Soil-landscape mapping in South-Western Australia Overview of Methodology and outputs' Resource Management Technical Report No. 280. Department of Agriculture.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- Shire of Coolgardie (2019). Advice received in relation to Clearing Permit Application CPS 8574/1 FMR Investments Pty Ltd (DWER Ref:A1829797).

GIS Databases: Aboriginal Sites of Significance DBCA Estate Groundwater salinity Hydrography, Linear Hydrography, Hierarchy Remnant Vegetation SAC bio datasets (accessed August 2019) Soils, Statewide Topographic contours