



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 7747/1
Permit Holder:	Shire of Narrogin
Duration of Permit:	31 March 2018 – 31 March 2023

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 extracting gravel materials.

2. Land on which clearing is to be done

Lot 217 on Plan 137320, Dumberning
Lot 124 on Plan 91144, Highbury

3. Area of Clearing

The Permit Holder must not clear more than 0.75 hectares of native vegetation within the area cross-hatched yellow on attached Plan 7747/1.

4. 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.

5. Type of clearing authorised

This Permit authorises the Permit Holder to clear native vegetation for the activities described in condition 1 of this Permit to the extent that the Permit Holder has the power to carry out works involving clearing for those activities under the *Local Government Act 1995* or any other written law.

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:

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

7. Fauna management

- Prior to undertaking clearing authorised under this Permit, the area shall be inspected by a *fauna specialist* who shall identify *habitat tree(s)* suitable to be utilised by the forest red-tailed black cockatoo (*Calyptorhynchus banksii* subsp. *naso*) or Carnaby's cockatoo (*Calyptorhynchus latirostris*).

- (b) Prior to clearing, any habitat/*habitat tree(s)* identified by condition 7(a) shall be inspected by a *fauna specialist* for the presence of fauna listed in condition 6(a)
- (c) Where fauna are identified in relation to condition 7(b) of this Permit, the Permit Holder shall ensure that no clearing of the identified *habitat tree(s)* occurs until such time that the fauna listed in condition 7(a) are no longer utilising the *habitat tree(s)*, and that the CEO is notified.

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* following clearing authorised under this Permit, *revegetate* and *rehabilitate* the area(s) that are no longer required for the purpose for which they were cleared under this Permit by:
 - (i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land;
 - (ii) ripping the pit floor and contour batters within the extraction site; and
 - (iii) 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.

9. 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 *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.

PART III – RECORD KEEPING AND REPORTING

10. 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); and
- (d) actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 6 of this Permit.

11. 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 10 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 31 December 2022 the Permit Holder must provide to the CEO a written report of records required under condition 10 of this Permit where these records have not already been provided under condition 11(a) of this Permit.

DEFINITIONS

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

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;

fauna specialist: means a person who holds a tertiary qualification specializing in environmental science or equivalent, and has a minimum of 2 years work experience in fauna identification and surveys of fauna native to the region being inspected or surveyed, or who is approved by the CEO as a suitable fauna specialist for the bioregion, and who holds a valid fauna licence issued under the *Wildlife Conservation Act 1950*;

fauna survey: means a field-based investigation, including a review of established literature, of the biodiversity of fauna and/or fauna habitat of the Permit Area. Where conservation significant fauna are identified in the Permit Area, the survey should also include sufficient surrounding areas to place the Permit Area into local context;

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

habitat tree/s: means trees that have a diameter, measured at 1.5 metres from the base of the tree, of 50 centimetres or greater;

local provenance means native vegetation seeds and propagating material from natural sources within 10 kilometres and the same Interim Biogeographic Regionalisation for Australia (IBRA) subregion of the area cleared;

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 April to June for undertaking *direct seeding*, and the period from May to June for undertaking *planting*;

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

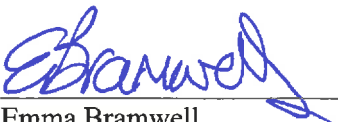
regenerate/ed/ion means re-establishment of vegetation from in situ seed banks and propagating material (such as lignotubers, bulbs, rhizomes) contained either within the topsoil or seed-bearing *mulch*;

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.



Emma Bramwell
A/MANAGER
CLEARING REGULATION





Officer delegated under Section 20 of the Environmental Protection Act 1986

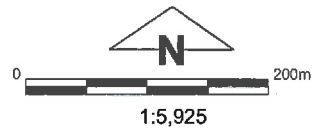
2 March 2018

Plan 7747/1a



Legend

-  Imagery
-  Roads
-  Clearing Instruments Activities
-  Local Government Authority



1:5,925

(Approximate when reproduced at A4)
GDA 94 (Lat/Long)

Geocentric Datum of Australia 1994

E Branwell Date *02/03/18*
E BRANWELL

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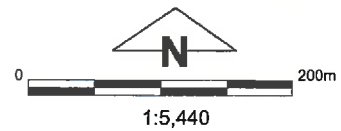
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Plan 7747/1b



Legend

- Imagery
- Roads
- Clearing Instruments Activities
- Local Government Authority



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(Approximate when reproduced at A4)
GDA 94 (Lat/Long)

Geocentric Datum of Australia 1994

E Bramwell Date 02/03/18
E BRAMWELL

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1. Application details

1.1. Permit application details

Permit application No.: 7747/1
Permit type: Purpose Permit

1.2. Applicant details

Applicant's name: Shire of Narrogin

1.3. Property details

Property: Lot 217 on Plan 137320, Dumberning
Lot 124 on Plan 91144, Highbury

Local Government Authority: NARROGIN, SHIRE OF

DWER Region: Mid West

DBCA District:

Localities: WELBUNGIN and WIALKI

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.75 (as revised)		Mechanical Removal	extracting gravel materials

1.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 2 March 2018

Reasons for Decision: The clearing permit application was received on 23 August 2017 and has been assessed against the clearing principles, planning instruments and other matters in accordance with section 51O of the *Environmental Protection Act 1986*. It has been concluded that the proposed clearing may be at variance to clearing principle (b) and is not likely to be at variance to the remaining clearing principles.

The Delegated Officer determined that the proposed clearing may impact habitat trees suitable for black cockatoo breeding, and is otherwise unlikely to have any unacceptable environmental impacts. The Delegated Officer also noted that the proposed clearing may increase the risk of weeds being introduced or spread into adjacent native vegetation.

To address these impacts, the clearing permit contains conditions requiring the applicant to avoid and minimise impacts, identify and avoid the clearing of suitable habitat trees within the breeding season of forest red-tailed black cockatoo, implement weed management measures, revegetate the areas following gravel extraction, and to keep records and provide annual reports.

2. Site Information

Clearing Description: The application is to clear up to clear 0.75 hectares of native vegetation (within a 1.13 hectare footprint) within Lot 217 on Plan 137320, Dumberning, and Lot 124 on Plan 91144, Highbury, for the purpose of extracting gravel materials for road construction.

Vegetation Description: The application area is mapped as t Beard vegetation association 1023, described as medium woodland; York gum (*Eucalyptus loxophleba*), wandoo (*Eucalyptus wandoo*) and salmon gum (*Eucalyptus salmonophloia*) (Shepherd et al, 2001).

Vegetation Condition: Good; Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).
To
Completely Degraded; No longer intact, completely/almost completely without native species (Keighery, 1994).

On review of aerial photography, and photographs of the application areas provided by the applicant, Graham Road Proposed Gravel Pit appears to contain vegetation in completely degraded (Keighery, 1994) to degraded (Keighery, 1994) condition, with areas within the proposed footprint containing no vegetation. Contine Road Proposed Gravel Pit contains vegetation in good (Keighery, 1994) to degraded (Keighery, 1994) condition. Refer to Figures 1 and 2 below.

Soil and Landform Type: The application area is mapped within two land subsystems:

- Graham Road Gravel Pit Site - Norrine Subsystem (Narrogin) subsystem is described as A complex of lateritic residuals and associated pediment; gravely sand, sand, duplex yellow soils and duricrust; and

- Contine Road and Campbell Street Gravel Pit sites - Dellyanine 1 subsystem is described as Gravelly crests and upper slopes usually bounded by breakaways with mainly deep and moderately deep sandy gravels and significant areas of shallow gravels (Schoknecht et al., 2004).

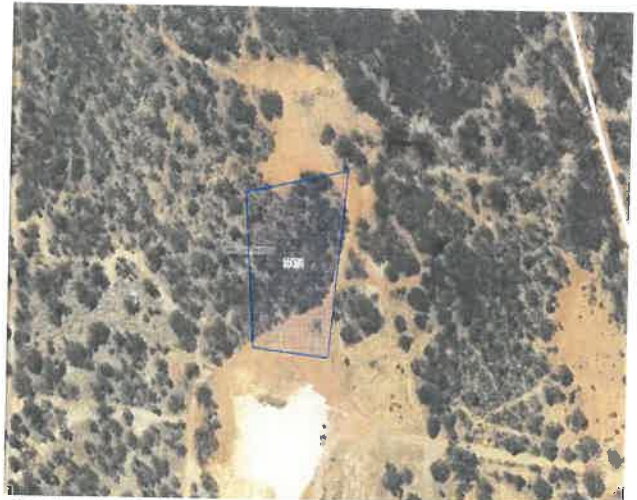
Comment:

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

Figure 1: Maps of application area



Graham Road Proposed Gravel Pit – Up to 0.3 hectares of native vegetation within a 0.59 hectare footprint



Contine Road Proposed Gravel Pit – Up to 0.45 hectares of native vegetation within a 0.54 hectare footprint.

3. Assessment of application against clearing principles

The application is to clear 0.75 hectares of native vegetation in two locations approximately 25 kilometres apart. The two areas are referred to in Figure 1.

According to available databases three priority flora species and no rare flora species have been recorded within the local area. These comprise two Priority 3 species and one Priority 4 species. Priority 3 flora species being species that are known from several locations and do not appear to be under imminent threat, and Priority 4 species are considered to have been adequately surveyed and are considered not currently threatened or in need of special protection (Jones, 2015). These species have been recorded from the same soil and vegetation types as found within the application area.

- *Acacia brachyphylla* var. *recurvata* (Priority 3) is known from 16 records at sites generally in Sand, loam, gravelly soils (FloraBase website, January 2018). The nearest record of this species occurs approximately 1.1 kilometres south east of the Contine Road Proposed Gravel Pit portion of the application area.
- *Caladenia x triangularis* (Priority 4) is known from eight records at sites generally supporting *Eucalyptus wandoo* in lowish undulating heavy loam country (FloraBase website, January 2018). The nearest record of this species occurs approximately 1.1 kilometres south east of the Contine Road Proposed Gravel Pit portion of the application area.
- *Gastrolobium rotundifolium* (Priority 3) is known from 33 records at sites generally associated with heavy clay or loam soils, granite, sandstone, quartzite, Low rises and breakaways (FloraBase website, January 2018). The nearest record of this species occurs approximately 1.5 kilometres from the south of the Contine Road Proposed Gravel Pit portion of the application area.

Noting the vegetation and soil types and the habitat preference for the abovementioned priority flora species, it is likely that the application areas contains suitable habit for *Acacia brachyphylla* var. *recurvata* and *Caladenia x triangularis*. However, both species are wide spread and locally common and should they be impacted upon from the proposed clearing it is unlikely to affect the conservation status of the species. Based on the soil types mapped within the Contine Road Proposed Gravel Pit, this portion of the application area is unlikely to comprise of suitable habitat for *Gastrolobium rotundifolium*.

According to available databases, five fauna specially protected under the *Wildlife Conservation Act 1950* and two priority fauna have been recorded within the local area (DBCA, 2007-). Of these, the application area may contain habitat for forest red-tailed black cockatoo (*Calyptorhynchus banksii* subsp. *naso*) and is within the mapped breeding range of Carnaby's cockatoo (*Calyptorhynchus latirostris*). Forest red-tailed black cockatoo and Carnaby's cockatoo are listed as vulnerable and endangered (respectively) under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Black cockatoos breed in large hollow-bearing trees, generally within woodlands or forests or in isolated trees (Commonwealth of Australia, 2012). These species nest in hollows in live or dead trees of York gum, wandoo, salmon gum, *Eucalyptus diversicolor* (karri), *Corymbia calophylla* (marri), *Eucalyptus gomphocephala* (tuart), *Eucalyptus marginata* (jarrah), *Eucalyptus rudis* (flooded gum), *Eucalyptus accedens* (powder bark), *Eucalyptus megacarpa* (bullich) and *Eucalyptus* sp. (blackbutt) (Commonwealth of Australia, 2012). Noting the mapped vegetation type within the application area, the application area is likely to contain suitable habitat for black cockatoos, and may comprise significant habitat for this species if they are utilising tree hollows for breeding. Identifying and avoiding habitat trees suitable for black cockatoo breeding prior to clearing will assist in reducing the potential impact to these species. Noting the extent and fragmented nature of the proposed clearing, and the condition of the vegetation within the application area, the application area is unlikely to comprise significant habitat for other indigenous fauna species.

According to available databases, several occurrences of the ecological community 'Eucalyptus Woodlands of the Western Australian Wheatbelt' occurs within the local area and is also mapped within the application areas. This ecological community is listed as Priority 3 by the Department of Biodiversity, Conservation and Attractions, and as a threatened ecological community (TEC) under the EPBC Act. The Approved Conservation Advice for this TEC specifies a number of criteria for vegetation to be considered representative of this TEC (Department of the Environment, 2016). One of these refers to the minimum patch size of the TEC being two hectares of vegetation being in a good condition. Noting this, as well as the extent of the proposed clearing and the condition of the vegetation, the application areas is not likely to comprise this TEC.

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 association are below the 30 per cent threshold (Government of Western Australia, 2016). Aerial imagery indicates that the local area of the Graham Road Gravel Pit Site retains approximately 10 per cent native vegetation cover and Contine Road Proposed Gravel Pit retains approximately 20 per cent native vegetation cover. Noting this, the application occurs in an extensively cleared landscape. However, noting the extent of the proposed clearing, and that the application area is unlikely to contain conservation significant flora or a TEC and is unlikely to comprise significant habitat for indigenous fauna or flora, it is considered that the application area is unlikely to be significant as a remnant.

According to available databases, no watercourse or wetlands intersect the application area. Noting this, the proposed clearing is not likely to impact on vegetation growing in association with a watercourse or wetland. Noting the extent of the proposed clearing and the readily draining soil types within the application area, the proposed clearing is unlikely to result in deterioration in the quality of surface or underground water, and is not likely to cause or exacerbate the incidence or intensity of flooding.

As indicated in Section 2 the application area is mapped within two land subsystems. Between 30-50 per cent of the Dellyanine 1 Subsystem map unit (Contine Road Proposed Gravel Pit portion of the application area) has a high to extreme wind erosion risk. Between 30-50 per cent of both map units have a moderate to high salinity risk or are presently saline. Noting this, the proposed clearing could potentially contribute to increased salinity and wind erosion, particularly with the proposed Contine Road Proposed Gravel Pit portion of the application area. However, noting the extent and fragmented nature of the proposed clearing, and that both portions of the application area are adjacent to existing gravel pits and subject to previous disturbance, the proposed clearing is unlikely to significantly increase the risk of salinity and wind erosion.

According to available databases, a number of conservation areas occur within the local area. None of these conservation areas are directly adjacent to the application area, and are separated from the application area by other areas of remnant vegetation and farmland. Noting this, the proposed clearing is not likely to impact on the environmental values of these conservation areas.

The proposed clearing not likely to be at variance to the clearing principles.

Planning instruments and other relevant matters.

The application was advertised on the Department of Water and Environmental Regulation's website on 23 August 2017 for a 21 day submission period. No submissions were received during this period.

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

4. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Commonwealth of Australia (2012) EPBC Act referral guidelines for three threatened black cockatoo species. Department of Sustainability, Environment, Water, Populations and Communities, Canberra.
- Department of Biodiversity Conservation and Attractions (DBCAs) (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dpaw.wa.gov.au/>. Accessed January 2017.
- Department of the Environment (2016) Eucalypt Woodlands of the Western Australian Wheatbelt: a nationally protected ecological community, Commonwealth of Australia 2016'
- Government of Western Australia. (2018). 2017 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of December 2017. WA Department of Biodiversity, Conservation and Attractions. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>.
- 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.

GIS Databases:

Aboriginal Sites of Significance

DBCAs Estate

Groundwater salinity

Hydrography, Linear

Hydrography, Hierarchy

Remnant Vegetation

SAC bio datasets (accessed November 2017)

Soils, Statewide

Topographic contours