



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 7631/1
File Number: 2017/000970
Duration of Permit: 4 October 2018 to 4 October 2020

PERMIT HOLDER

Villmaggiore Pty Ltd

LAND ON WHICH CLEARING IS TO BE DONE

Lot 102 on Deposited Plan 401885, Channybearup

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 16.6 hectares of native vegetation within the area hatched yellow on attached Plan 7631/1.

CONDITIONS

1. 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.

2. Fauna management

- (a) Prior to undertaking clearing authorised under this Permit, the area shall be inspected by a *fauna specialist* who shall identify *black cockatoo nesting tree(s)* suitable to be utilised by the forest red-tailed black cockatoo (*Calyptorhynchus banksii* subsp. *naso*), Carnaby's cockatoo (*Calyptorhynchus latirostris*) and Baudin's cockatoo (*Calyptorhynchus baudinii*).
- (b) Prior to clearing, any habitat/ *black cockatoo nesting tree(s)* identified by condition 2(a) shall be inspected by a *fauna specialist* for the presence of fauna listed in condition 2(a).
- (c) Where a *black cockatoo nesting tree(s)* being utilised by Carnaby's cockatoo, Baudin's cockatoo or forest red-tailed black cockatoo is identified, the Permit Holder shall monitor the *black cockatoo nesting tree(s)* to determine when the chick(s) has fledged, as determined by the *fauna specialist*; and
- (d) The Permit Holder shall not clear a *black cockatoo nesting tree* identified as being utilised by Carnaby's cockatoo, Baudin's cockatoo or forest red-tailed black cockatoo until the chick(s) has fledged, as determined by the *fauna specialist*.

3. Dieback and 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* and *dieback*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no *dieback* or *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.

4. Records must be kept

The Permit Holder must maintain the following records for activities done in pursuant to this Permit:

- (a) In relation to clearing:
 - (i) 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;
 - (ii) the date that the area was cleared;
 - (iii) the size of the area cleared (in hectares);
 - (iv) actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 1 of this Permit; and
 - (v) actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with condition 3 of this Permit.
- (b) In relation to condition 2:
 - (i) the location of the *black cockatoo nesting tree(s)* identified as being utilised by Carnaby's cockatoo or forest red-tailed black cockatoo 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;
 - (ii) the evidence by which it was determined the *black cockatoo nesting tree(s)* was being utilised including the date of that determination; and
 - (iii) the evidence by which it was determined the chick(s) had fledged including the date of that determination.

5. Reporting

- (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 4 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January to 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, 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.

DEFINITIONS

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

black cockatoo nesting tree/s means trees that have a diameter, measured at 1.5 metres from the base of the tree, of 50 centimetres or greater (or 30 centimetres or greater for *Eucalyptus salmonophloia* or *Eucalyptus wandoo*) that contain hollows suitable for nesting by Carnaby's cockatoo or forest red-tailed or Baudin's black cockatoo;

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

dieback means the effect of *Phytophthora* species on native vegetation;

fauna specialist means a person:

- (a) Who holds a tertiary qualification specializing in environmental science or equivalent, has a minimum of two years work experience in fauna identification and surveys of fauna native to the region being inspected or surveyed and holds a valid fauna licence issued under the *Wildlife Conservation Act 1950*; or
- (b) Who does not have appropriate professional qualifications, but has a minimum of seven years work experience in fauna identification and surveys of fauna native to the region being inspected or surveyed and 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;

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;

weeds 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.



Mathew Gannaway
MANAGER
NATIVE VEGETATION REGULATION






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

4 September 2018

Plan 7631/1



Legend

-  Imagery
-  Localities
-  --> Image Index
-  Clearing Instruments Activities
-  Local Government Authority



1:16,105

(Approximate when reproduced at A4)

GDA 94 (Lat/Long)

Geocentric Datum of Australia 1994

MR G Date 04/09/2018

Mathew Gannaway

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986



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1. Application details

1.1. Permit application details

Permit application No.: 7631/1
Permit type: Area Permit

1.2. Applicant details

Applicant's name: Villmaggioro Pty Ltd

1.3. Property details

Property: Lot 102 on Deposited Plan 401885, Channybearup
Local Government Authority: Manjimup, Shire of
Localities: Channybearup

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
16.6 (revised)		Mechanical Removal	Horticulture

1.5. Decision on application

Decision on Permit Application: Granted

Decision Date: 4 September 2018

Reasons for Decision: The clearing permit application was received on 6 June 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 principles (a), (b) and (h) and is not likely to be at variance to the remaining clearing principles.

To ensure that black cockatoos are not impacted during the clearing process, a condition has been added to the permit requiring the Permit Holder to check hollows for the presence of black cockatoos prior to clearing and not to clear trees where black cockatoos have been identified until a fauna specialist has verified that the hollow/s are no longer being utilised by black cockatoos.

The Delegated Officer determined that the proposed clearing may increase the spread of weeds and dieback into adjacent vegetation. To minimise this impact, a condition has been placed on the permit requiring the implementation of weed and dieback management measures.

The Delegated Officer further determined that the proposed clearing of 16.6 hectares of native vegetation within an area contains approximately 80 per cent native vegetation cover is not likely to cause an unacceptable risk to the environment.

Given the above, the Delegated Officer decided to grant a clearing permit subject to conditions.

Site Information

Clearing Description: The original application applied for the clearing of up 20 hectares of native vegetation within Lot 102 on Deposited Plan 401885, Channybearup, for the purpose of horticulture.

During the assessment of the clearing permit application, the application area was revised to 16.6 hectares to meet *Country Areas Water Supply Act 1947* (CAWS Act) requirements.

Vegetation Description: The application area is mapped as the following Mattiske vegetation complexes:

- PM1: Tall open forest of *Eucalyptus diversicolor* (karri) with mixtures of *Corymbia calophylla* (marri) on valley slopes and low forest of *Taxandria juniperina-Banksia seminuda* (river banksia)-*Callistachys lanceolata* (wonnich) on valley floors in the perhumid zone; and
- CRb: Tall open forest of marri-karri on upper slopes with *Allocasuarina decussata* (karri she-oak)-*Banksia grandis* (bull banksia) on upper slopes in hyperhumid and perhumid zones (Mattiske and Havel, 1998).

The application area largely comprises of closed karri forest over scattered marri (*Corymbia calophylla*) and juvenile karri and she-oak (*Allocasuarina* sp.) over *Bossiaea webbii* (water bush), *Pteridium esculentum* (bracken), *Lasiopetalum floribundum* (free-flowering Lasiopetalum), Malvaceae sp., *Hardenbergia comptoniana* (native wisteria) and *Tetraria* sp. The application area

also contains marri throughout, both as small stands of trees and as scattered individuals (DWER, 2017a).

Vegetation Condition: The vegetation condition within the application area ranges from Excellent to Completely Degraded, described as:

- Excellent; Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994); to
- Completely Degraded; No longer intact, completely/almost completely without native species (Keighery, 1994).

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

- Crowea (Pimelia) brown duplex Phase Map Unit 254PvCrb, described as broad bridge crests on weathered mantle over gneiss, with loamy gravels, red deep loamy duplexes and friable red/brown loamy earths; and
- Pemberton Subsystem (Pimelia) Map Unit 254zPvPM, described as minor valleys (20-40 metres deep) on colluvium gneiss with loamy gravels, friable red/brown loamy earths, brown loamy earths and red deep loamy duplexes (Deputy Commissioner of Soil and Land Conservation, 2017).

Comment: The condition and structure of the vegetation within the application area was obtained via a site inspection undertaken by officers of the Department of Water and Environment Regulation (DWER) (DWER, 2017a).

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

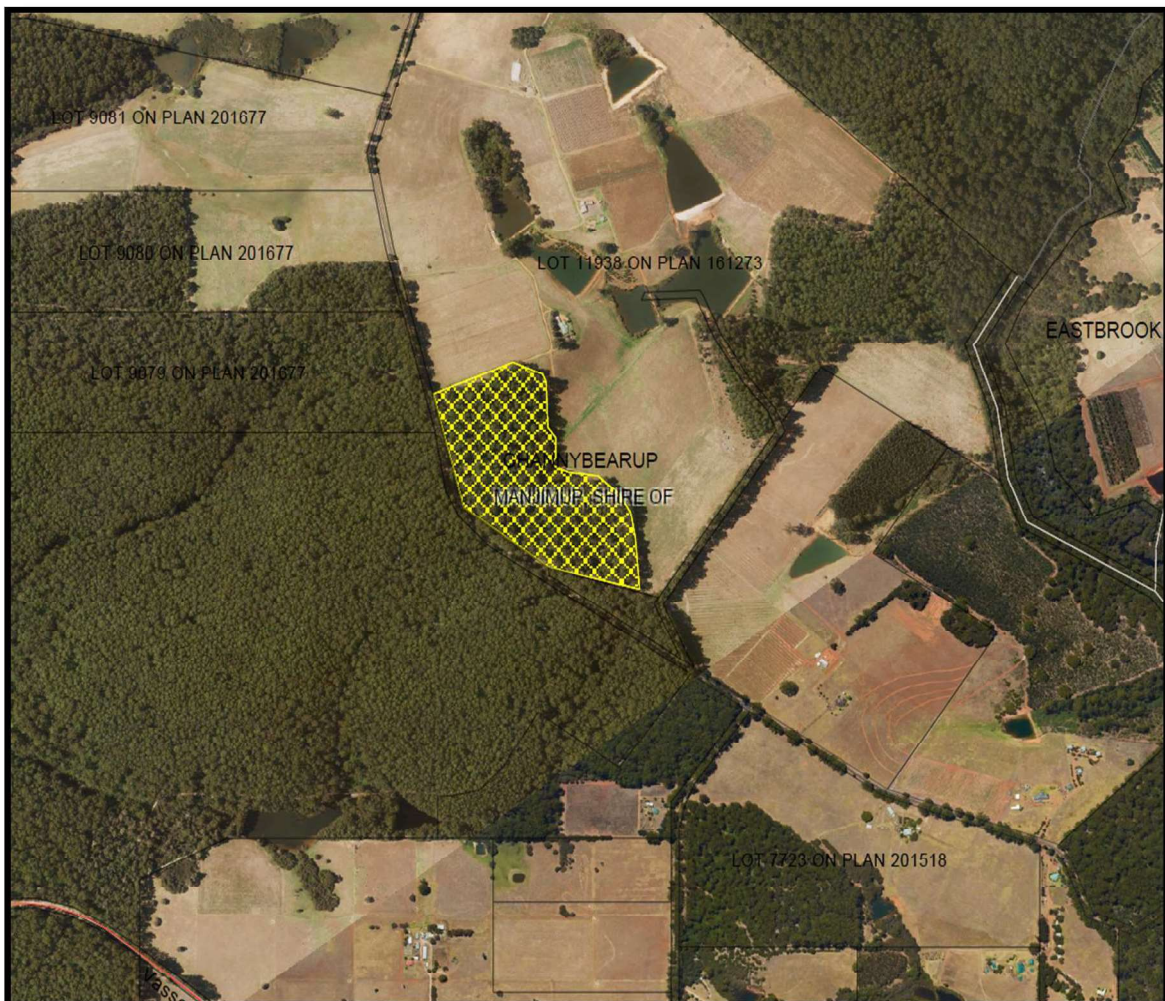


Figure 1: Map of application area



Figure 1a: Track through the centre portion of the application area within closed karri forest.



Figure 2b: Common understorey species bracken, free-flowering lasiopetalum, *Malvaceae* sp. and native wisteria.

Figure 2: Photographs of vegetation within the application area

2. Assessment of application against clearing principles

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

Proposed clearing may be at variance to this Principle

The revised application is for the clearing of up 16.6 hectares of native vegetation within Lot 102 on Deposited Plan 401885, Channybearup, for the purpose of horticulture.

As discussed in Section 2, the application areas largely comprises of closed forest with scattered marri over juvenile karri and she-oak over water bush, bracken, free-flowering lasiopetalum, *Malvaceae* sp., native wisteria and *Tetraria* sp. (DWER, 2017a).

According to available databases, two priority flora have been recorded within the local area. Of these, none have been recorded within the same vegetation and soil types as those found within the application area.

As discussed under Principle (c), of the rare flora species recorded within the local area, it is unlikely the vegetation within the application area provides suitable habitat for rare flora.

As discussed under Principle (b), the application area may comprise suitable breeding habitat for the threatened species forest red-tailed black cockatoo (*Calyptorhynchus banksii* subsp. *naso*), Baudin's cockatoo (*Calyptorhynchus baudinii*) and Carnaby's cockatoo (*Calyptorhynchus latirostris*) (herein referred to as black cockatoos) (DWER, 2017a).

Given the above, the proposed clearing may 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.

Proposed clearing may be at variance to this Principle

According to available databases, 11 fauna specially protected under the *Wildlife Conservation Act 1950* and six priority fauna have been recorded within the local area (DBCA, 2007-).

The DWER site inspection identified that some of the trees may comprise suitable breeding habitat for the three threatened black cockatoo species (DWER, 2017a).

Carnaby's cockatoo is listed as endangered and Baudin's cockatoo and forest red-tailed cockatoo are listed as vulnerable 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 karri, marri, *Eucalyptus wandoo* (wandoo), *Eucalyptus gomphocephala* (tuart), *Eucalyptus salmonophloia* (salmon gum), *Eucalyptus marginata* (jarrah), *Eucalyptus rudis* (flooded gum), *Eucalyptus loxophleba* (York gum), *Eucalyptus accedens* (powder bark), *Eucalyptus megacarpa* (bullich) and *Eucalyptus* sp. (blackbutt) (Commonwealth of Australia, 2012).

Noting the presence of karri and marri trees, the application area is likely to contain suitable habitat for black cockatoos. The application area may comprise of significant habitat for these species if they are utilising tree hollows for breeding. Identifying and avoiding habitat trees for black cockatoo breeding prior to clearing will assist in reducing the potential impact to these species. To ensure that black cockatoos are not impacted during the clearing process, a condition has been added to the permit requiring the Permit Holder to check hollows for the presence of black cockatoos prior to clearing and not to clear trees where black cockatoos have been identified until a fauna specialist has verified that the hollow/s are no longer being utilised by black cockatoos.

The vegetation within the application area is likely to provide suitable habitat for ground dwelling and other species of indigenous fauna, however noting that the vegetation types within the application area are well represented within the local area, including the Donnelly State Forest which is adjacent to the application area, the proposed clearing is not likely to comprise significant habitat for these species.

Given the above, the application area may comprise significant habitat for threatened black cockatoo species. The proposed clearing may 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.

Proposed clearing is not likely to be at variance to this Principle

According to available databases, two rare flora species have been recorded within the local area. Of these, one has been mapped occurring within the same vegetation complex and soil type as the application area.

This species occurs near the banks of streams or rivers, growing in humic, greyish-brown, clayey sand, in open jarrah-wandoo woodland, karri-marri forest and coastal *Eucalyptus angulosa*, *E. conferruminata* and *E. cornuta* mallee shrubland (Department of Parks and Wildlife, 2016).

According to available databases, no watercourses occur within the application area. The application area is unlikely to contain suitable habitat for this species.

Given the above, the application area is not likely to include, or be necessary for the continued existence of, rare flora. The proposed clearing is not likely 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.

Proposed clearing is not likely to be at variance to this Principle

As discussed under Principles (e) and (h), the local area retains approximately 80 per cent native vegetation cover, a large proportion of which is within the adjacent Donnelly State Forest. The adjacent portion of the Donnelly State Forest contains similar mapped vegetation and soil types, and similar vegetation condition, as found within the application area.

According to available databases, no threatened ecological communities (TEC) are mapped within the local area, including within the adjacent portion of the Donnelly State Forest.

Given the above, the application area is unlikely to comprise the whole or part of, or be necessary for the maintenance of, a TEC. The proposed clearing is not likely to be 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.

Proposed clearing is not likely to be at variance to this Principle

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).

As indicated in Table 1, the remaining extents of native vegetation within the bioregion, and mapped vegetation complexes are above the 30 per cent threshold.

Aerial imagery indicates that the local area retains approximately 80 per cent native vegetation cover, with large proportion of this vegetation occurring within conservation areas.

Noting the vegetation extents, the application area is not likely to be significant as a remnant within an extensively cleared area. The proposed clearing is not likely to be at variance to this Principle.

Table 1: Vegetation extents

	Pre-European	Current Extent	Remaining	Current Extent in DBCA Managed Lands	
	(ha)	(ha)	(%)	(ha)	(%)
IBRA Bioregion*					
Warren	833,985	659,438	79	557,850	84
Mattiske Vegetation Complex**					
PM1	25,801	16,744	65	14,903	58
CRb	52,753	45,325	86	42,941	81

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Proposed clearing is not likely to be at variance to this Principle

According to available databases, the following watercourses and wetlands occur within the local area:

- Lefroy Brook is located approximately 600 metres from the application area;
- Pemberton Weir is located approximately 881 metres from the application area; and
- Treen Brook located approximately 1,200 metres from the application area.

According to available databases, no watercourses or wetlands occur within the application area.

The vegetation types found within the application area are terrestrial and are not consistent with riparian vegetation (DWER, 2017b).

Given the above, the application area is not likely to contain vegetation growing in, or in association with, an environment associated with a watercourse or wetland. The proposed clearing is not likely to be at variance to this Principle.

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

Proposed clearing is not likely to be at variance to this Principle

As discussed in Section 2, the application area is mapped as loamy gravels, earths and duplexes (Schoknecht et al., 2004).

The Deputy Commissioner of Soil and Land Conservation advised that these map units have a low risk of land degradation in the form of wind erosion, waterlogging, water erosion, flooding, eutrophication and salinity as a result of the proposed clearing (Deputy Commissioner of Soil and Land Conservation, 2017).

Given the above, the proposed clearing is not likely to cause appreciable land degradation. The proposed clearing is not likely to be at variance to this Principle.

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

Proposed clearing may be at variance to this Principle

According to available datasets, the local area contains a number of conservation areas, including the Donnelly State Forest which adjoins the western section of the application area.

The Donnelly State Forest covers an area of greater than 26,000 hectares, and it is unlikely the proposed clearing will have a significant impact on its environmental values. However, the proposed clearing may increase the risk of dieback and weeds being spread into adjacent areas of native vegetation within the Donnelly State Forest. Dieback and weed management measures would assist in minimising this risk.

Given the above, the proposed clearing may have an impact on the environmental values of an adjacent conservation area. The proposed clearing may be at variance to this Principle.

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

Proposed clearing is not likely to be at variance to this Principle

As discussed under Principle (f), no watercourses or wetlands occur within the application area.

The Deputy Commissioner of Soil and Land Conservation advised that the proposed clearing is unlikely to contribute to nutrient enrichment of surface and/or groundwater bodies given the soil types present within the application area (Deputy Commissioner of Soil and Land Conservation, 2017).

The groundwater salinity within the application area ranges between 500-1,000 total dissolved solids per milligram per litre. The Deputy Commissioner of Soil and Land Conservation advised that there were no signs of salinity within the application area, and that no significant changes to groundwater salinity are expected as a result of the proposed clearing (Deputy Commissioner of Soil and Land Conservation, 2017).

Given the above, the proposed clearing is not likely to cause deterioration in the quality of surface or underground water. The proposed clearing is not likely to be at variance to this Principle.

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

Proposed clearing is not likely to be at variance to this Principle

The Deputy Commissioner of Soil and Land Conservation advised that the risk of flooding occurring as a result of the proposed clearing is low (Deputy Commissioner of Soil and Land Conservation, 2017).

Given the above, the proposed clearing is not likely to cause, or exacerbate, the incidence or intensity of flooding. The proposed clearing is not likely to be at variance to this Principle.

3. Planning instruments and other relevant matters.

The application area is located within the Warren River and Tributaries Surface Water Area and Lefroy Brook Sub area proclaimed under the *Rights in Water and Irrigation Act 1914* (RiWI Act) and the unproclaimed Karri Groundwater Area (DWER, 2017b). On 13 March 2017, the applicant applied to amend an existing water license, which included to take additional surface water and to increase the capacity of the dam on Lot 102 (DWER, 2017b). This application was refused on 3 May 2017, as no additional surface water allocation was available at the time (DWER, 2017b). The applicant is encouraged to contact DWER's Manjimup office licensing section for further information.

The application area is located within the Warren River Water Reserve gazetted under the *Country Areas Water Supply Act 1947* (CAWS Act), which has been subject to CAWS Act native vegetation clearing controls since December 1978 to prevent salinisation of water resources (DWER, 2017b). The application area is not in a current Public Drinking Water Source area, hence no priority source protection area has been assigned or is proposed (DWER, 2017b). The application area is located in Zone D, a low salinity risk area of the catchment, where DWER policy and guidelines under the CAWS Act allow for the granting of a licence to clear subject to (among other things) the statutory requirement that at least 10 per cent of the subject land holding remains uncleared (DWER, 2017b).

Based upon the land owner's holdings through the use of 2014 imagery, there is currently 15.7 per cent (49 hectares) of native vegetation remaining. In accordance with the CAWS Act, the proposed clearing of 20 hectares would leave 29 hectares or 9.3 per cent of native vegetation on the land owner's holding and would not meet the statutory requirement that at least 10 per cent of the subject land holding remains uncleared. The applicant revised the proposed clearing area by reducing it by 3.4 hectares leaving the amount proposed to be cleared at 16.6 hectares. The revised clearing leaves 32.4 hectares which equates to 10.38 per cent of native vegetation remaining on the land owner's holding. The revised clearing meets the statutory requirement under the CAWS Act.

The Shire of Manjimup advised that the land is zoned by Local Planning Scheme No. 4 as "Priority Agriculture" and planning approval for clearing of vegetation is not required, and that there are no planning of other matters which would affect the application (Shire of Manjimup, 2017).

This clearing permit application was advertised on DWER's website on 5 July 2017 with a 21 day submission period. No public submissions have been received in relation to this application.

No Aboriginal sites of significance have been mapped within the application area.

4. References

- Commissioner of Soil and Land Conservation (2017) Advice received in relation to Clearing Permit Application CPS 7709. Department of Primary Industries and Regional Development (DWER Ref:A1510119).
- 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 (DBCA) (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dpaw.wa.gov.au/>. Accessed September 2017
- Department of Parks and Wildlife (2016) Many-flowered Commersonia (*Commersonia apella*) Interim Recovery Plan 2016-2021. Interim Recovery Plan No. 362. Department of Parks and Wildlife, Western Australia.
- Department of Water and Environmental Regulation (DWER) (2017a) Site Inspection Report undertaken 10 July 2017. Department of Water and Environment Regulation. Western Australia (DWER Ref: A1522233).
- Department of Water and Environmental Regulation (DWER) (2017b) Water resource and licensing advice for Clearing Permit Application CPS 7631/1. Department of Water and Environmental Regulation. Land and Clearing (CAWSA) Management. Western Australia (DWER Ref: A1470372).
- Deputy Commissioner of Soil and Land Conservation (2017) Advice received in relation to Clearing Permit Application CPS 7631. Department of Agriculture and Food (DWER Ref:A1510119).
- **Government of Western Australia. (2018). 2017 South West Vegetation Complex Statistics. Current as of October 2017. WA Department of Biodiversity, Conservation and Attractions, Perth, <https://catalogue.data.wa.gov.au/dataset/dbca>.
- *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>.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment 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.
- Shire of Manjimup (2017). Advice received in relation to Clearing Permit Application CPS 7631/1 (DWER Ref:A1479474).

GIS Databases:

- Aboriginal Sites of Significance
- CAWS Act

- Department of Biodiversity Conservation and Attractions, Tenure
- Groundwater salinity
- Hydrography, linear
- Hydrography, Hierarchy
- NLWRA, Current Extent of Native Vegetation
- Remnant vegetation
- SAC bio datasets, accessed September 2017
- Soils, Statewide
- Topographic contours