



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 8730/1
File Number: DWERVT4183
Duration of Permit: 9 April 2020 to 9 April 2022

PERMIT HOLDER

City of Kalamunda

LAND ON WHICH CLEARING IS TO BE DONE

Walnut Road road reserve (PIN 11603865), Bickley
Patterson Road road reserve (PIN 11143596), Pickering Brook

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 1.632 hectares of native vegetation within the area hatched yellow on attached Plan 8730/1.

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. 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.

3. Fauna management

The Permit Holder shall not clear any *Black Cockatoo habitat trees* found within the area cross hatched yellow on attached Plan 8730/1.

4. 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 1 of this Permit;
- (e) actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with condition 2 of this Permit; and
- (f) the location and size of retained *Black Cockatoo habitat trees* in accordance with condition 3.

5. Reporting

The Permit Holder must provide to the *CEO* the records required under condition 4 of this Permit, when requested by the *CEO*.

DEFINITIONS

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

black cockatoo habitat tree(s) means tree/s that have a diameter, measured at 1.5 metres from the base of the tree, of 50 centimetres or greater.

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;

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;

weed/s means any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*;
or
- (b) 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.

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Ryan Mincham
MANAGER
NATIVE VEGETATION REGULATION

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

10 March 2020



1. Application details

1.1. Permit application details

Permit application No.: 8730/1
Permit type: Area Permit

1.2. Proponent details

Applicant's name: City of Kalamunda
Application received date: 14 November 2019

1.3. Property details

Property: Patterson Road road reserve (PIN 11143596), Pickering Brook
Walnut Road road reserve (PIN 11603865), Bickley
Local Government Authority: City of Kalamunda
Localities: Pickering Brook and Bickley

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.632		Mechanical Removal	Road construction or upgrades

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 10 March 2020

Reasons for Decision: The clearing permit application was received on 14 November 2019 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 with Principle (h), and is not likely to be at variance with the remaining clearing principles.

The Delegated Officer noted that the proposed clearing may have an impact on the adjacent Korung National Park, and considered that the implementation of a suitable weed and dieback management condition was appropriate to mitigate the impact of spreading weed species and dieback into this conservation reserve. A number of potential habitat trees were identified within the application area and clearing of these trees may impact habitat significant for indigenous fauna. The applicant has committed to avoiding all potential habitat trees and this has been conditioned on the permit to avoid impacts to this environmental value.

In determining to grant a clearing permit subject to conditions, the Delegated Officer found that the proposed clearing is unlikely to lead to an unacceptable risk to the environment.

2. Site Information

Clearing Description: The application is to clear up to 1.632 hectares of native vegetation within Patterson Road road reserve (PIN 11143596), Pickering Brook and Walnut Road road reserve (PIN 11603865), Bickley, for the purpose of road construction and upgrades (Figure 1).

Vegetation and Site Description: The application area is mapped as the following Mattiske vegetation complexes (Mattiske and Havel, 1998):

- **Dwellingup Vegetation Complex (D2):** consisting of open forest of *Eucalyptus marginata* subsp. *marginata-Corymbia calophylla* on lateritic uplands in subhumid and semiarid zones.
- **Yarragil Vegetation Complex (Y1):** consisting of a mixture of open-forest of Jarrah and Marri which can include *Eucalyptus patens* (Swan River Blackbutt) and *Eucalyptus megacarpa* (Bullich)

The flora and vegetation survey identified one vegetation community within the application area (Natural Area Holdings, 2019):

- **Jarrah-Marri Woodland:** consisting of woodland of *Corymbia calophylla* (Marri) and *Eucalyptus marginata* (Jarrah), with a middle story of *Xanthorrhoea preissii*, *Xanthorrhoea gracilis* and mixed shrub over an understory of mixed native herbs and sedges.

Vegetation Condition: Good; Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it.

To

Excellent; Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species (Keighery, 1994)

Soil and Landform Type: The clearing area is mapped within the following land subsystem (Schoknecht et al., 2004):

- **Dwellingup 2 Phase:** Very gently to gently undulating terrain (<10%) with well drained, shallow to moderately deep gravelly brownish sands, pale brown sands and earthy sands overlying lateritic duricrust; and
- **Yarragil 1 Phase:** Very gentle to moderately inclined concave side slopes. Moderately well drained yellow duplex soils and yellow and brown massive earths. Woodland of *Eucalyptus wandoo*, *Eucalyptus marginata*, and *Eucalyptus Accedens*. *Casuarina obesa* on salt affected areas.

Comment: A reconnaissance flora and vegetation survey was conducted by Natural Area Holdings on 16 October 2019, within the application area. The survey also undertook a targeted search for threatened flora species, including the presence of any suitable habitat (Natural Area Holdings, 2019). The vegetation condition of the application area is based on this field survey and a site inspection undertaken by DWER officers in February 2020 (DWER, 2020).

The local area referred to in the below assessment is defined as the area within a 5 kilometre radius of the application area.

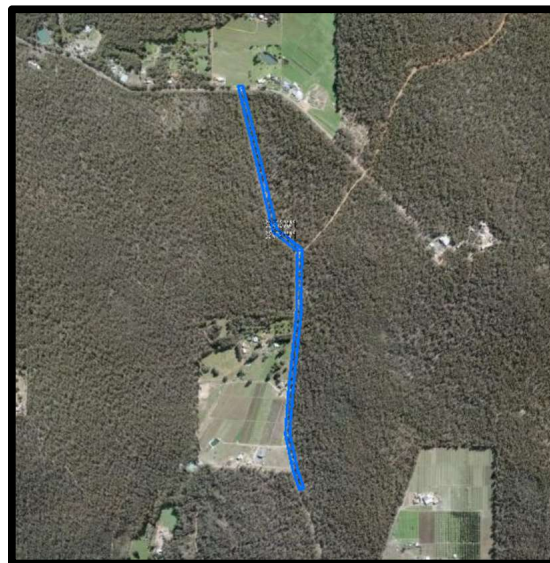


Figure 1 - CPS 8730/1 application area (cross-hatched blue).

3. Assessment of application against clearing principles

Comments The application proposes to clear up to 1.632 hectares of native vegetation for the purpose of road construction and upgrades within the Patterson Road and Walnut Road road reserves in Pickering Brook and Bickley (Patterson Road Stage 3). As specified in Section 2, one vegetation community was recorded within the application area that ranged from good to excellent (Keighery, 1994) condition (Natural Area Holdings, 2019; DWER, 2020). Good (Keighery, 1994) condition vegetation occurred adjacent to farmland property along the western side of Patterson road (0.17 hectares), while the remainder of the western side of the road was classified as very good condition (Keighery, 1994) (1.38 hectares), with the balance of the application area observed to be excellent condition (2.75 hectares) (Natural Area Holdings, 2019).

The vegetation survey covered the full extent of the Patterson Road road reserve, however, the applicant only intends to clear for road widening and site lines and therefore all the proposed clearing will be adjacent to the existing road reserve. Flexibility has been built into the footprint of the potential clearing area to allow for avoidance of environmental values (survey area 4.31 hectares, clearing permit footprint 3.6 hectares, amount of clearing 1.632 hectares).

Vegetation Condition	Excellent	Very Good	Good	Degraded	Completely Degraded	Totals
Area (ha)	2.75	1.38	0.17	0	0	4.31
Area (%)	63.84	32.1	4.06	0	0	100

Figure 2 - Excerpt from Natural Area Holdings (2019) showing vegetation condition extents within the application area.

A review of available databases determined that 10 flora species of conservation significance have been recorded in the local area (5 km radius), comprising three threatened species, one Priority 2 species, one Priority 3 species and five Priority 4 species (Western Australian Herbarium 1998-). No occurrences of these conservation significant flora species were from within the application area (Western Australian Herbarium 1998-), however, one priority flora species was identified in close proximity to the southern end of the application area. A field survey was conducted in October 2019 to determine the presence of conservation significant flora species and suitable habitat within the application area (Natural Area Holdings, 2019).

The field survey recorded a total of 105 flora taxa from 38 families, of which none were of conservation significance (Natural Area Holdings, 2019). The timing of the survey was appropriate for identification of conservation significant flora species of concern. Given the survey did not identify any flora of conservation significance within the application area, the proposed clearing is not likely to result in the loss of native vegetation that includes, or is necessary, for the continued existence of conservation significant flora.

According to available databases, 149 terrestrial fauna species have been recorded in the local area (Department of Biodiversity, Conservation and Attractions, 2007-). Of these, 12 fauna species are of conservation significance, comprising five threatened fauna species, one Priority 3 fauna species, four Priority 4 fauna species and two fauna species classified as 'other specially protected fauna' (Department of Biodiversity, Conservation and Attractions, 2007-). Based on the current known range extents of these species, the application area may comprise suitable habitat or be utilised by the following conservation significant species:

- Baudin's Black Cockatoo (*Calyptorhynchus baudinii*) – Endangered;
- Carnaby's Cockatoo (*Calyptorhynchus latirostris*) – Endangered;
- Forest Red-tailed Black Cockatoos (*Calyptorhynchus banksii naso*) – Vulnerable;
- Chuditch (*Dasyurus geoffroii*) – Vulnerable;
- Numbat (*Myrmecobius fasciatus*) – Endangered;
- Quenda (*Isoodon obesulus* subsp. *fusciventer*) – Priority 4; and
- Western Brush Wallaby (*Notamacropus irma*) – Priority 4.

No black cockatoos were observed flying over the application area during the October 2019 survey and approximately 20 potential breeding trees (diameter at breast height > 500 millimetres) were opportunistically observed as occurring within, or in close proximity to the application area (Natural Area Holdings, 2019). Hollows were visible on two large trees within the application area (Natural Area Holdings, 2019). The applicant has confirmed that no potential habitat trees will be removed as part of this project (City of Kalamunda, 2020). A condition to enforce this commitment has been included as a regulatory control (permit condition).

The closest known black cockatoo roost site is located 1.2 kilometres south of the application area, with the nearest confirmed Carnaby's cockatoo breeding location approximately 11 kilometres south-west of the application area. While the vegetation within the application area comprises potential foraging habitat for black cockatoos, no evidence of foraging was noted during the vegetation survey (Natural Area Holdings, 2019). Given the absence of watercourses within the application area, the separation distance to the nearest confirmed breeding location and that the application area adjoins similar or better condition and quality foraging resources within conservation tenure, the proposed clearing is not considered to be significant habitat for black cockatoos. Exclusion of potential habitat trees from the application area also avoids primary roosting trees and vegetation most likely to produce better quality foraging resources within the application area. Based on the above, the proposed clearing is not likely to impact on significant foraging or roosting habitat for black cockatoos in the local area.

According to available databases, there are no threatened or priority ecological communities that occur within the application area, and none occur within 5 km of the application area. The vegetation community recorded within the application area (see section 2 above) does not represent any known threatened or priority ecological community (Natural Area Holdings, 2019, DWER, 2020) therefore the application area is not likely to comprise or be necessary for the maintenance of any threatened or priority ecological community.

The application area is adjacent to the Korung National Park for the majority of Patterson Road road reserve. Given the distance between the application area and the National Park, the proposed clearing may indirectly impact on the environmental values of nearby conservation areas if clearing is not adequately managed. Clearing activities have the potential to facilitate the spread of weeds and dieback (*Phytophthora cinnamomi*) into adjacent native vegetation. Weed species can decrease the biodiversity value of an area, as they out-compete native vegetation for available resources, contribute to land degradation and increase the frequency and intensity of fires. Potential impacts to biodiversity within and near the application area as a result of the proposed clearing may be minimised by the implementation of weed and dieback management practices.

The application area is not located in any groundwater or surface water areas as proclaimed under the *Rights in Water and Irrigation Act 1914*, and according to available databases, no watercourses or wetlands intersect the application area. The application area is located within the Middle Helena Catchment Area (Priority 1 and Priority 2) Public Drinking Water Source Area. The soil mapped within the application area is the Dwellingup 2 Phase and Yarragil 1 Phase soil types that are generally resistant to water erosion and have low risk of flooding and waterlogging. The Yarragil 1 Phase soil type is also resistant to wind erosion, however approximately 30 to 50 per cent of the Dwellingup 2 Phase subsystem is mapped as having a high to extreme risk of wind erosion. Given the application area is adjacent to an existing road and is narrow and linear in nature, it is unlikely that the proposed clearing will impact on water resources, lead to appreciable land degradation, deteriorate the quality of groundwater or surface water, or result in the exacerbation of flooding.

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 Jarrah Forest IBRA bioregion retains approximately 53.25 per cent of the pre-European extent, and the mapped Dwellingup (D2) and Yarragil 1 (Yg1) vegetation complexes retain approximately 82.5 per cent and 80.95 per cent of the pre-European extent, respectively (Government of Western Australia, 2019a; Government of Western Australia, 2019b). The local government area, the City of Kalamunda, retains approximately 72.11 per cent of the pre-European extent (Government of Western Australia, 2019a). Given this, the proposed clearing is not likely to be significant as a remnant of vegetation in an area that has been extensively cleared.

Given the above, clearing the vegetation under application may be at variance to Principle (h), and is not likely to be at variance to the remaining clearing principles.

Planning instruments and other relevant matters.

Comments There are no registered Aboriginal Sites of Significance within the permit application area. It is the applicant's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

The clearing permit application was advertised on 11 January 2020 with a 21 day submission period. No public submissions have been received in relation to this clearing permit application.

The DBCA Perth Hills District previously advised (CPS 8380/1; Patterson Road upgrade Stage 2) that given the close proximity to the Korung National Park, appropriate hygiene practices should be in place and monitored to ensure dieback and weed species are not spread into new areas. Furthermore, no new access tracks are to be created during the process of clearing, and no soil, rock or vegetation is to be stored, dumped and/or removed from within the boundaries of the Korung National Park (DBCA, 2019). This advice is considered broadly relevant to the current clearing permit application as well.

4. References

- City of Kalamunda (2020). Additional information received in relation to clearing permit application CPS 8730/1 received 20 February 2020. (DWER Ref: DWERDT257762).
- Department of Biodiversity, Conservation and Attractions (DBCA) (2007-). NatureMap Mapping Western Australia's Biodiversity. Department of Parks and Wildlife, <http://naturemap.dpaw.wa.gov.au/> (Accessed March 2019).
- Department of Biodiversity, Conservation and Attractions (DBCA) (2019). Advice received in relation to clearing permit application CPS 8380/1 on 29 April 2019. (DWER Ref: A1789027).
- Department of Water and Environmental Regulation (DWER) 2020 Site Inspection Report from 25 February 2020. DWERDT257801.
- Natural Area Holdings (2019). Reconnaissance Level (Level 1) Flora and vegetation survey of Patterson Road Stage 3. Report prepared by Natural Area Holdings for City of Kalamunda.
- Government of Western Australia. (2019a). 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions, Perth. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>.
- Government of Western Australia. (2019b). 2018 South West Vegetation Complex Statistics. Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions, Perth, <https://catalogue.data.wa.gov.au/dataset/dbca>.
- 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 PJ and Purdie B. (2004). Soil-landscape mapping in south-western Australia - Overview of methodology and outputs. Management Technical Report 280, Department of Agriculture Western Australia.
- Western Australian Herbarium (1998-). FloraBase - The Western Australian Flora. Department of Biodiversity, Conservation and Attractions. <http://florabase.dpaw.wa.gov.au/> (Accessed March 2019).

GIS Databases:

- Aboriginal Sites of Significance
- DBCA Tenure
- Hydrography, linear
- SAC bio datasets accessed January 2020