



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 8741/1
Permit Holder:	Public Transport Authority
Duration of Permit:	19 March 2020 to 19 March 2025

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 utility relocation and road and rail realignment/widening

2. Land on which clearing is to be done

Lot 74 on Plan 9623, Kelmscott
Lot 73 on Plan 9623, Kelmscott
Lot 72 on Plan 9623, Kelmscott
Lot 70 on Plan 9623, Kelmscott
Lot 700 on Plan 36583, Kelmscott
Lot 69 on Plan 9623, Kelmscott
Lot 68 on Plan 9623, Kelmscott
Lot 55 on Plan 9623, Kelmscott
Lot 1091 on Plan 796, Kelmscott
Road Reserve (PIN 11210144), Kelmscott
Road Reserve (PIN 11210145), Kelmscott
Road Reserve (PIN 11210141), Kelmscott
Road Reserve (PIN 11210150), Kelmscott
Road Reserve (PIN 11397053), Kelmscott
Road Reserve (PIN 11397051), Kelmscott
Road Reserve (PIN 11210152), Kelmscott
Road Reserve (PIN 11210146), Kelmscott
Road Reserve (PIN 11210155), Kelmscott
Road Reserve (PIN 11397041), Kelmscott
Road Reserve (PIN 11210154), Kelmscott
Road Reserve (PIN 11397043), Kelmscott
Road Reserve (PIN 11397044), Kelmscott
Road Reserve (PIN 1215371), Kelmscott
Road Reserve (PIN 11397045), Kelmscott
Road Reserve (PIN 12058657), Kelmscott
Road Reserve (PIN 11210153), Kelmscott
Road Reserve (PIN 11397042), Kelmscott
Road Reserve (PIN 11210156), Kelmscott
Road Reserve (PIN 11844804), Kelmscott
Road Reserve (PIN 11750928), Kelmscott
Road Reserve (PIN 11210151), Kelmscott

Road Reserve (PIN 11397049), Kelmscott
Road Reserve (PIN 12058658), Kelmscott
Road Reserve (PIN 11397047), Kelmscott
Road Reserve (PIN 11397058), Kelmscott
Road Reserve (PIN 11397048), Kelmscott
Road Reserve (PIN 11875944), Kelmscott
Road Reserve (PIN 1216062), Kelmscott
Road Reserve (PIN 11397059), Kelmscott
Road Reserve (PIN 11930125), Kelmscott
Road Reserve (PIN 11397035), Kelmscott
Road Reserve (PIN 11397057), Kelmscott
Road Reserve (PIN 11246027), Kelmscott
Road Reserve (PIN 11397031), Kelmscott
Road Reserve (PIN 11397055), Kelmscott
Road Reserve (PIN 11875941), Kelmscott
Road Reserve (PIN 11875939), Kelmscott
Road Reserve (PIN 11875943), Kelmscott

3. Area of Clearing

The Permit Holder must not clear more than 0.28 hectares of native vegetation within the area cross-hatched yellow on attached Plan 8741/1.

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.

PART II – MANAGEMENT CONDITIONS

5. 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.

6. 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.

PART III – RECORD KEEPING AND REPORTING

7. Record keeping

The Permit Holder must maintain the following records 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(s) 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 5 of this Permit;

(e) actions taken to minimise the risk of the introduction and spread of *dieback* and *weeds* in accordance with condition 6 of this Permit; and

8. Reporting

The Permit Holder must produce the records required under condition 7 of this Permit when required by the *CEO*.

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*;


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) 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
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Ryan Mincham
MANAGER
NATIVE VEGETATION REGULATION

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

18 February 2020

Plan 8741/1

116°0'36.000"E

116°1'12.000"E




116°0'36.000"E



116°1'12.000"E

Legend

CPS layers

 CPS areas approved to clear

base layers

 Road Centrelines
 Cadastre - LGATE 218

0 50 100 150 200 m



Officer delegated under section 20 of the Environmental Protection Act 1986



GOVERNMENT OF WESTERN AUSTRALIA



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 8741/1
Permit type: Purpose Permit

1.2. Applicant details

Applicant's name: Public Transport Authority
Application received date: 22 November 2019

1.3. Property details

Property:

- Lot 74 on Plan 9623, Kelmscott
- Lot 73 on Plan 9623, Kelmscott
- Lot 72 on Plan 9623, Kelmscott
- Lot 70 on Plan 9623, Kelmscott
- Lot 700 on Plan 36583, Kelmscott
- Lot 69 on Plan 9623, Kelmscott
- Lot 68 on Plan 9623, Kelmscott
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- Road Reserve (PIN 11397055), Kelmscott
- Road Reserve (PIN 11875941), Kelmscott
- Road Reserve (PIN 11875939), Kelmscott
- Road Reserve (PIN 11875943), Kelmscott

Local Government Authority: City of Armadale
Localities: Kelmscott

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	Purpose category:
0.28		Mechanical Removal	Road construction and upgrades

1.5. Decision on application

Decision on Permit Application:

Grant

Decision Date:

18 February 2020

Reasons for Decision:

The clearing permit application has been assessed against the clearing principles, planning instruments and other matters in accordance with section 51O of the *Environmental Protection Act 1986* (EP Act). It has been concluded that the proposed clearing is not likely to be at variance with the principles.

The proposed clearing may increase the risk of weeds and dieback spreading into adjacent vegetated areas, specifically Camillo Reserve, which contains a threatened ecological community. A weed and dieback management condition has been placed on the permit to mitigate the potential for weeds and dieback spreading into adjacent vegetation.

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

2. Site Information

Clearing Description:

The application is to clear 0.28 of native vegetation within a 9.7 hectare envelope for the purposes of utility relocation and road and rail realignment/widening to facilitate the greater Denny Avenue Level Crossing Removal project (Figure 1). The Public Transport Authority (PTA) is proposing to remove the railway level crossing at Denny Avenue, Kelmscott as part of the METRONET Level Crossing Removal Project.

Vegetation Description:

Two vegetation complexes have been mapped within the application area:

- Forresterfield Complex - Vegetation ranges from open forest of *Corymbia calophylla* (Marri) - *Eucalyptus wandoo* (Wandoo) - *Eucalyptus marginata* (Jarrah) to open forest of *Eucalyptus marginata* (Jarrah) - *Corymbia calophylla* (Marri) - *Allocasuarina fraseriana* (Sheoak) - *Banksia* species. Fringing woodland of *Eucalyptus rudis* (Flooded Gum) in the gullies that dissect this landform (Hedde *et al.*, 1980);
- Swan Complex- Fringing woodland of *Eucalyptus rudis* (Flooded Gum) - *Melaleuca raphiophylla* (Swamp Paperbark) with localised occurrence of low open forest of *Casuarina obesa* (Swamp Sheoak) and *Melaleuca cuticularis* (Saltwater Paperbark) (Hedde *et al.*, 1980).

A flora and vegetation survey undertaken by PGV Environmental (2019) identified four vegetation types within the application area:

- EmCc – *Eucalyptus marginata* (Jarrah)/*Corymbia calophylla* (Marri) Woodland over *Xylomelum occidentale* Low Open Woodland;
- Em - One Jarrah tree was recorded among other exotic trees on a lot at the northern end of the survey area;
- Cc - Marri trees were very common in the road reserve either side of the rail reserve, mostly at the southern half of the site. In places *Xanthorrhoea preissii* was very common in the understorey, while other areas had a completely weedy understorey. Other tree species recorded within the lines of Marri trees in the road reserve included *Casuarina cunninghamiana*, *Eucalyptus camaldulensis* and *Melaleuca preissiana* (Figure 2). Marri trees were also recorded in carparks at the northern end of the site.
- E - Exotic plants. Common exotic species included Bottlebrush (*Callistemon* spp.), Lemon-scented Gum (*Corymbia citriodora*), Flowering Plums (*Prunus* sp.), Red-flowering Gum (*Corymbia ficifolia*) and Jacaranda (*Jacaranda mimosifolia*). A large Sugar Gum (*Eucalyptus cladocalyx*) occurred at the intersection of Denny Avenue and Streich Avenue.

Vegetation Condition:

Degraded; basic vegetation structure severely impacted by disturbance, scope for regeneration but not to a state approaching good condition without intensive management (Keighery, 1994).

to
Completely degraded; the structure of the vegetation is no longer intact and the area is completely or almost completely without native species (Keighery, 1994).

The vast majority of the site is in a completely degraded vegetation condition (Figure 2, Figure 3). The vegetation condition of the application area was determined during a flora and vegetation survey undertaken to inform the clearing application (PGV Environmental, 2019).

Soil type:

There are three soil types mapped within the application area:

- Pinjarra, Phase Gf2 - Very gently undulating plain with imperfectly drained mottled yellow duplex soils with sand to sandy loam topsoil (Schoknecht *et al.*, 2004).
- EnvGeol S8 Phase - SAND - very light grey at surface, yellow at depth, fine to medium-grained, sub-rounded quartz, moderately well sorted of eolian origin (Schoknecht *et al.*, 2004).

- EnvGeol Cs Phase - SANDY CLAY - white-grey to brown, fine to coarse-grained, subangular to rounded sand, clay of moderate plasticity gravel and silt layers near scarp (Schoknecht *et al.*, 2004).

The majority of the application area falls within the Pinjarra Phase Gf2.

Comments:

The local area referred to in the assessment of this application is defined as a 10 kilometre radius measured from the perimeter of the application area. None of the application area is mapped as having remnant vegetation, with the area significantly cleared in 1953.



Figure 1: application area



Figure 2: photographs of native vegetation within the application area – completely degraded (left) and degraded (right)

3. Minimisation and mitigation measures

The applicant advised in their application form that a number of alternatives have been considered to allow the removal of the Denny Avenue level crossing, including closing the crossing without providing additional east/west linkages at the Kelmscott location.

4. Assessment of application against clearing principles

According to available databases, a total of 77 conservation significant flora have been recorded in the local area. A flora and vegetation survey was undertaken in September 2018 which encompassed 21.425 hectares and included the entirety of the application area (PGV Environmental, 2019). This survey recorded 112 species, 60 of which are native (PGV Environmental, 2019). The majority of the site was determined to be in a completely degraded condition, with a small portion in the south section of the application area assigned a degraded vegetation condition (Keighery, 1994; PGV Environmental, 2019). Based on the vegetation condition and the results of the flora survey undertaken, the proposed clearing is not likely to support or impact on any conservation significant flora, including any flora listed as threatened under the *Biodiversity Conservation Act 2016* (PGV Environmental, 2019).

A total of 12 conservation significant ecological communities have been recorded in the local area. Vegetation within the application is likely too degraded to represent any conservation significant communities (PGV Environmental, 2019). Camillo Reserve, located adjacent to the application area, is recorded as *Banksia attenuata* and/or *Eucalyptus marginata* woodlands of the eastern side of the Swan Coastal Plain Threatened Ecological Community (TEC). This community is listed as Endangered under the *Biodiversity Conservation Act 2016* (state) and the *Environment Protection Biodiversity Conservation Act 1999* (federal) (DPaW, 2016). Vegetation within the application area is not consistent with the vegetation community within Camillo Reserve (PGV Environmental, 2019). As the application area is a highly modified, the proposed clearing is not likely to impact on vegetation that supports a threatened ecological community.

According to available databases, a total of 52 conservation significant fauna have been recorded in the local area. A fauna survey undertaken within the application area identified the utilisation of the application area by three conservation significant species, the forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*), Carnaby's Cockatoo (*Calyptorhynchus latirostris*) and Baudin's cockatoo (*Calyptorhynchus baudinii*) (Harewood, 2019). There was evidence of feeding by all three black cockatoo species, predominantly on Marri (*Corymbia calophylla*) nuts (Harewood, 2019). The survey identified 17 habitat trees (diameter at breast height greater than 50 cm) within the application area, of which 2 contained small to medium sized hollows (DotEE, 2013; Harewood, 2019). No evidence of black cockatoo breeding or roosting was noted (Harewood, 2019). Based on the small size of the application area and presence of over 12,600 hectares of remnant vegetation within the local area, the majority of which is mapped as areas requiring investigation as feeding habitat for black cockatoos, the proposed clearing is not likely to contain significant habitat for black cockatoo species. Based on the vegetation type and condition, the habitat was not determined to be significant habitat for other conservation significant species recorded in the local area (Harewood, 2019).

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 Environmental Protection Authority (EPA) has a modified objective to retain at least 10 per cent of the pre-clearing extent of vegetation complexes for defined constrained areas (intensely developed), namely the Perth and Bunbury Metropolitan Region (EPA, 2008). The Swan Coastal Plain region currently has 39.16 per cent of the pre-1750 extent remaining and the local area has approximately 37.27 per cent remaining; both have vegetation extent in exceedance with the 30 per cent national target (Government of Western Australia, 2018). The Forrestfield Complex, in which the majority of the application area occurs, has 12.29 per cent remaining compared to pre-1750 extent of this vegetation complex. The Swan Complex has 13.57 per cent of its original extent remaining compared to pre-1750 cover. However, within the City of Armadale only 4.63 per cent of the Swan complex remains compared to pre-1750 extent within the Local Government Area (Government of Western Australia, 2018). A review of the vegetation mapping undertaken during the flora survey indicated that only exotic species fall within the Swan Complex and the area is not mapped as remnant vegetation; the vegetation within this area is not consistent with the Swan vegetation complex (PGV Environmental, 2019). Overall, the vegetation proposed to be cleared is not likely to be significant as a remnant of native vegetation in an area that has been extensively cleared.

According to available databases, the closest conservation area is an un-named river reserve located approximately 60 metres from the application area. This is also the nearest wetland or watercourse to the application area. Given the small area proposed to be cleared, the completely degraded vegetation condition, and the highly modified, urban environment within the application area and surrounds, the proposed clearing is not likely to impact on this reserve.

Based on the low level of clearing and the highly modified application area, the proposed clearing is not likely to deteriorate the quality of underground or surface water, or cause or exacerbate the incidence or intensity of flooding. Soils have been mapped as exhibiting a high water logging risk (>70% of map unit has a moderate to very high waterlogging risk). Given the relatively small size of the application area, the application area being located in an urban environment where soils and infiltration have been altered, the application area is not likely to cause appreciable land degradation.

Planning instruments and other relevant matters.

No Aboriginal sites of significance have been mapped within the application area, with the closest registered site being the Swan/Canning river located approximately 50 metres to the east of the application area.

The clearing permit application was advertised on the DWER website on 17 January 2019 with a 14 day submission period. No public submissions have been received in relation to this application.

The City of Armadale has requested the following along with its letter of authority to the Public Transport Authority (City of Armadale, 2019):

- Consultation with the City to look at opportunities to retain mature trees within the current temporary carpark (between Streich Ave and Albany Hwy). The council and community expect that these trees will be retained where possible;
- Camillo Reserve to be fenced with temporary fencing prior to commencing any works adjacent to this reserve;
- The City's parks team be consulted prior to any clearing so any logs or hollows can be salvaged for use in City reserves.

The applicant has advised that communication with the City of Armadale has been established regarding the retention of trees where possible and the provision of hollows for salvage and use in other reserves as habitat.

A direct interest letter was received from the City of Armadale on 6 February 2020 requesting the above considerations be addressed in a Construction Environment Management Plan (City of Armadale, 2020).

5. References

- City of Armadale (2019) Supporting Information for clearing permit application CPS 8741/1. City of Armadale. Received with application by DWER on 22 November 2019 (DWER Ref: A1844567).
- City of Armadale (2020) Supporting Information for clearing permit application CPS 8741/1. City of Armadale. Received by DWER on 6 February 2020 (DWER Ref: A1865109).
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Department of the Environment and Energy (DotEE) (2013) *Environment Protection and Biodiversity Conservation Act 1999* referral guidelines for three threatened black cockatoo species: Carnaby's cockatoo (endangered) *Calyptorhynchus latirostri*, Baudin's cockatoo (vulnerable) *Calyptorhynchus baudinii*, Forest red-tailed black cockatoo (vulnerable) *Calyptorhynchus banksii naso*. DotEE, Canberra.
- Department of Parks and Wildlife (DPaW) (2016) as *Banksia attenuata* and/or *Eucalyptus marginata* woodlands of the eastern side of the Swan Coastal Plain Interim Recovery Plan. Department of Parks and Wildlife, Government of Western Australia.
- Environmental Protection Authority (EPA) (2008) Environmental Guidance for Planning and Development Guidance Statement No 33. Environmental Protection Authority, Western Australia.
- 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.
- Harewood, G. (2019) Fauna Habitat Assessment: Denny Avenue Level Crossing Removal Project. Unpublished report prepared for the Public Transport Authority.
- Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- PGV Environmental (2019) Metronet Denny Avenue Level Crossing – Flora and Vegetation Survey. Unpublished report prepared for the Public Transport Authority.
- 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.

Publicly available GIS Databases used (data.wa.gov.au):

- Soil and Landscape Mapping – Best Available
- Landgate Historical Aerial Imagery – Perth Metro Area
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Geomorphic Wetlands, Swan Coastal Plain (DBCA-019)
- IBRA Vegetation Statistics
- Carnaby's Cockatoo Areas requiring investigation as feeding habitat in the Swan Coastal Plain (SCP) IBRA Region (DBCA-057)
- Carnaby's Cockatoo Areas requiring investigation as feeding habitat in the Jarrah Forest IBRA Region (DBCA-056)
- Remnant Vegetation

- Groundwater Salinity Statewide (DWER-026)
- Contours (DPIRD-073)
- Soil and Landscape Quality – Wind Erosion Risk (DPIRD-016)
- Soil and Landscape Quality – Water Erosion Risk (DPIRD-013)
- Soil and Landscape Quality – Waterlogging Risk (DPIRD-015)
- Soil and Landscape Quality – Water Repellence Risk (DPIRD-014)
- Soil and Landscape Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil and Landscape Quality – Phosphorus Export Risk (DPIRD-010)
- Soil and Landscape Quality – Salinity Risk (DPIRD-009)
- Flood Risk (DPIRD-007)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Regional Parks (DBCA-026)
- Bush Forever Areas – 2000 (DPLH-019)
- Aboriginal Heritage Places (DPLH-001)
- Local Planning Scheme – Zones and Reserves (DPLH-071)

Restricted GIS Databases used:

- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- TECs and PECs
- TECs and PECs (Buffer)
- Black Cockatoo roost sites
- SCP Vegetation Complex Statistics