



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 7423/1
Permit Holder:	Shire of Donnybrook – Balingup
Duration of Permit:	31 December 2017 – 31 December 2022

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 bridge construction and road realignment.

2. Land on which clearing is to be done

Trevena Road reserve (PINs: 11550428, 11597321 and 11123631), Queenwood
Lot 177 on Deposited Plan 232725, Queenwood
Lot 32 on Deposited Plan 62151, Queenwood
Lot 6 on Diagram 62417, Queenwood
Unallocated Crown Land (PIN 508193), Queenwood

3. Area of Clearing

The Permit Holder must not clear more than 0.6 hectares of native vegetation within the area hatched yellow on attached Plan 7423/1.

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 etc 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.

6. Fauna management

- (a) 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 below fauna species:
 - (i) Carnaby's cockatoo (*Calyptorhynchus latirostis*);
 - (ii) Baudin's cockatoo (*Calyptorhynchus baudinii*);
 - (iii) forest red-tailed black cockatoo (*Calyptorhynchus banksii* subsp. *naso*); and
 - (iv) southern brush-tailed phascogale (*Phascogale tapoatafa* subsp. *tapoatafa*).
- (b) Prior to clearing, any *habitat/habitat tree(s)* identified by condition 6(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 6(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 6(a) are no longer utilising the *habitat tree(s)*, and that the CEO is notified.
- (d) Where *habitat tree(s)* are identified in relation to condition 6(a), the permit holder shall avoid clearing of identified *habitat tree (s)* where appropriate.

DEFINITIONS

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

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;

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;



Mathew Gannaway
MANAGER
CLEARING REGULATION

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

8 December 2017

Plan 7423/1



Legend

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



1:5,010

(Approximate when reproduced at A4)

GDA 94 (Lat/Long)

Geocentric Datum of Australia 1994

 Date 8/12/17

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.: 7423/1
Permit type: Purpose Permit

1.2. Applicant details

Applicant's name: Shire of Donnybrook-Balingup

1.3. Property details

Property: Lot 6 on Diagram 62417, Queenwood
Lot 32 on Deposited Plan 62151, Queenwood
Lot 177 on Deposited Plan 232725, Queenwood
Trevena Road Reserve – (PINs 11597321, 11550428 and 11123631), Queenwood
Unallocated Crown Land (PIN 508193), Queenwood

Local Government Authority: Donnybrook-Balingup, Shire of
Localities: Queenwood

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.6		Mechanical Removal	Bridge construction and road realignment

1.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 8 December 2017
Reasons for Decision: The clearing permit application was received on 20 December 2016 and has been assessed against the clearing principles, planning instruments and other matters in accordance with section 51O of the *Environmental Protection Act 1986*, and it has been concluded that the proposed clearing is at variance to principle (f), may be at variance to principle (b) and is not likely to be at variance to the remaining clearing principles.

The Delegated Officer determined that the application area includes vegetation growing in association with a major water course, the Preston River. However, noting the size and linear shape of the application area located along an existing road reserve and the purpose of clearing is for bridge construction and road realignment, the proposed clearing is unlikely to have a significant impact on the environmental values of this watercourse.

The Delegated Officer determined that the application area contains suitable foraging and breeding habitat for black cockatoo species. The clearing permit will include conditions requiring the Permit Holder to identify and check all habitat trees prior to clearing, and to implement weed and dieback management measures.

In determining to grant a clearing permit subject to conditions, the Delegated Officer found that the proposed clearing is unlikely to have any significant environmental impacts.

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
<p>The following Beard vegetation associations are mapped within the application area:</p> <ul style="list-style-type: none"> 3 is described as medium forest; jarrah-marri; and 1184 is described as medium woodland-fringing; jarrah, marri, <i>Eucalyptus rudis</i> and <i>Agonis flexuosa</i> (Shepherd et al., 2001). <p>Mattiske vegetation complex 'Mumballup' is described as 'open forest of <i>Eucalyptus</i></p>	<p>The clearing of 0.6 hectares of native vegetation within the abovementioned location for the purpose of bridge construction and road realignment.</p>	<p>Degraded; Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).</p> <p>To</p> <p>Good; Structure significantly altered by multiple disturbance; retains basic structure/ability to</p>	<p>The vegetation description and condition was determined via a site inspection undertaken by former Department of Environment Regulation (DER) officers on 28 March 2017.</p> <p>The application area is in a degraded (Keighery, 1994) to good (Keighery, 1994) condition. The majority of the application area is in a degraded (Keighery, 1994) condition with a small portion (approximately 0.1 hectares) located along the</p>

patens - *Corymbia calophylla* on slopes and woodland of *Eucalyptus rudis* - *Melaleuca raphiophylla* on lower valley floor in the humid zone (Mattiske and Havel, 1998).

regenerate (Keighery, 1994).

watercourse in a good (Keighery, 1994) condition (DER, 2017).

The vegetation within the application area consists predominantly of *Corymbia calophylla* (Marri), *Eucalyptus marginata*, *Eucalyptus* sp. and *Agonis flexuosa*. Very little midstorey and understorey was present. The understorey was dominated by weeds (DER, 2017).

3. Assessment of application against clearing principles

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

Comments

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

The clearing of 0.6 hectares of native vegetation within Trevena Road reserve (PINs: 11550428, 11597321 and 11123631), Lot 32 on Deposited Plan 62151, Lot 6 on Diagram 62417 and unallocated Crown land (PIN 508193), Queenwood, is for the purpose of bridge construction and road realignment.

The area under application is in a degraded (Keighery, 1994) to good (Keighery, 1994) condition. The majority of the application area is in a degraded (Keighery, 1994) condition with a small portion (approximately 0.1 hectares) located along the watercourse in a good (Keighery, 1994) condition (DER, 2017).

The vegetation within the application area consists predominantly of *Corymbia calophylla* (Marri), *Eucalyptus marginata*, *Eucalyptus* sp. and *Agonis flexuosa*. Very little midstorey and understorey was present. The understorey was dominated by weeds (DER, 2017).

According to available databases, four priority flora and one rare flora species have been recorded within the local area (10 kilometre radius), the closest being a Priority 4 flora species located approximately 5.3 kilometres from the application area. The three additional priority species are Priority 3. Priority 3 species 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, but could be if present circumstances change. The former Department of Parks and Wildlife (Parks and Wildlife) has advised that 'the application will not impact on any currently significant flora or vegetation' (Parks and Wildlife, 2017). On this basis it is considered that the proposed clearing is unlikely to impact upon the conservation status of priority flora species recorded within the local area (10 kilometre radius). As assessed under Principle (c), the proposed clearing is not likely to impact upon any rare flora.

Seven fauna species listed as rare or likely to become extinct under the *Wildlife Conservation Act 1950* (WC Act) have been recorded within the local area (10 kilometre radius) (Parks and Wildlife, 2007-). As assessed under Principle (b) suitable foraging habitat for the conservation significant black cockatoos species forest red-tailed black cockatoo (*Calyptorhynchus banksii* subsp. *naso*), Baudin's cockatoo (*Calyptorhynchus baudinii*) and Carnaby's cockatoo (*Calyptorhynchus latirostris*) was identified within the application area (DER, 2017). A site inspection undertaken by DER officers observed evidence of foraging by the black cockatoos within the application area. One tree with a potential hollow and a number of large trees with the potential to develop hollows suitable for breeding by the conservation significant black cockatoo species were observed within the application area (DER, 2017). Fauna management practices such as identifying and checking habitat trees prior to clearing will assist in mitigating impacts to breeding habitat for the black cockatoo species.

The application area provides suitable foraging habitat for the conservation significant black cockatoo species, however the local area contains 50 per cent native vegetation cover (15,700 hectares) including a number of conservation areas that provide vegetation in a better condition and contains foraging habitat for these species.

No threatened or priority ecological communities have been recorded within the local area (10 kilometre radius).

The South West Regional Ecological Linkage Technical Report (Molloy et al., 2009) identified a regional ecological linkage that intersects with the application area and runs along Preston River. As a result of the location of this axis line, the application area is classed as '1a' under the report. 1a areas represent native vegetation touching or less than 100 metres from a linkage (Molloy et al., 2009). These linkages are recognised for their significance in facilitating indigenous fauna movement across the landscape (Molloy et al., 2009). 'The landscape function of an ecological linkage will be considered impaired where a proposed development causes the proximity value of a level 1 patch of remnant vegetation to change to level 2' (Molloy et al., 2009). While the proposed clearing may impact upon vegetation classified 1a, the proposed clearing along Trevena Road is small, narrow, linear in shape and follows an existing road, and it is considered that the proposed clearing is unlikely to have a significant impact on the environmental values of this ecological linkage via fragmentation or removal of large areas of native vegetation.

The application area is predominantly in a degraded (Keighery 1994) condition and the proposed clearing is not likely to impact upon significant habitat for fauna, any rare or priority flora or threatened or priority ecological communities. Therefore the proposed clearing is not likely to comprise a high level of biological diversity.

Given the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology References:
DER (2017)
Keighery (1994)
Molloy et al. (2009)
Parks and Wildlife (2007-)
Parks and Wildlife (2017)
GIS Databases:
SAC Bio Datasets – accessed April 2017

(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.

Comments Proposed clearing may be at variance to this Principle

Seven fauna species listed as rare or likely to become extinct under the WC Act have been recorded within the local area (10 kilometre radius). The application area may provide potential habitat for forest red-tailed black cockatoo (*Calyptorhynchus banksii* subsp. *naso*), Baudin's cockatoo (*Calyptorhynchus baudinii*), Carnaby's cockatoo (*Calyptorhynchus latirostris*), chuditch (*Dasyurus geoffroi*), southern brush-tailed phascogale (*Phascogale tapoatafa* subsp. *tapoatafa*) and western ringtail possum (*Pseudocheirus occidentalis*) (Parks and Wildlife, 2007-).

Carnaby's cockatoo is listed as endangered and Baudin's cockatoo and forest red-tailed black 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 former woodland or forest now present as isolated trees, including hollows in live or dead trees of karri, marri, wandoo, tuart, salmon gum, jarrah, flooded gum, York gum, powderbark, bullich and blackbutt. Black cockatoos have a preference for feeding habitat that includes jarrah and marri woodlands and forest heathland and woodland dominated by proteaceous plant species such as *Banksia* sp. *Hakea* sp. and *Grevillea* sp. (Commonwealth of Australia, 2012).

Suitable foraging habitat for the conservation significant black cockatoos species was identified within the application area with evidence of foraging by the black cockatoos observed within the application area (DER, 2017). One large tree with a hollow potentially suitable for breeding by the conservation black cockatoos was identified within the application area and a number of large trees with the potential to develop hollows suitable for breeding were observed within the application area (DER, 2017). Fauna management practices such as identifying and checking habitat trees prior to clearing will assist in mitigating impacts to black cockatoos.

The application area provides suitable foraging habitat for the conservation significant black cockatoo species, however the local area contains 50 per cent native vegetation cover (15,700 hectares) including a number of conservation areas that provide vegetation in a better condition and contains foraging habitat for these species.

The southern brush-tailed phascogale inhabits dry sclerophyll forests and open woodlands that contain hollow-bearing trees (Department of Environment and Conservation, 2012). Western ringtail possum populations in southern forests occur mainly in jarrah or marri dominated forests extending to wandoo forests to the north east of Manjimup (Parks and Wildlife, 2014). The chuditch inhabits most kinds of wooded habitat within its current range including eucalypt forest (especially jarrah), dry woodland and mallee shrublands. In Jarrah forest, chuditch populations occur in both moist, densely vegetated, steeply sloping forest and drier, open, gently sloping forest (Department of the Environment and Energy, 2017a). Suitable habitat for these species may occur within the application area, however given the size and condition of the application area and its location along an existing road, it is considered that the proposed clearing is unlikely to impact upon significant habitat for these species.

As assessed under Principle (a), the South West Regional Ecological Linkage Technical Report (Molloy et al., 2009) identified a regional ecological linkage that intersects with the application area and runs along Preston River. While the proposed clearing may impact upon vegetation associated within this linkage, the proposed clearing along Trevena Road is small, narrow, linear in shape and follows an existing road, and it is considered that the proposed clearing is unlikely to have a significant impact on the environmental values of this ecological linkage.

Given the above, the proposed clearing may impact upon breeding habitat for the black cockatoo species. Therefore, the proposed clearing may be at variance to this Principle

Methodology References:
Commonwealth of Australia (2012)
Department of Environment and Conservation (2012)
DER (2017)
Department of the Environment and Energy (2017a)
Molloy et al. (2009)
Parks and Wildlife (2007-)
Parks and Wildlife (2014)

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

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

According to available databases, one rare flora species has been recorded within the local area (10 kilometre radius). This species is found on soils in low lying areas that are occasionally inundated. Associated vegetation is generally swampy heath to 1 metre high with scattered emergent Christmas Tree (*Nuytsia floribunda*) (Department of the Environment and Energy, 2017b).

A site inspection undertaken by DER did not identify suitable habitat for this species (DER, 2017). Parks and Wildlife has advised that 'the application will not impact on any currently significant flora or vegetation' (Parks and Wildlife, 2017).

Given the above, the application area is not likely to be necessary for the continued existence of rare flora and the proposed clearing is not likely to be at variance to this Principle.

Methodology References:
DER (2017)
Department of the Environment and Energy (2017b)
Parks and Wildlife (2017)

GIS Databases:
SAC Bio Datasets – accessed April 2017

(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.

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

According to available databases, there are no threatened ecological communities (TEC) recorded within the local area (10 kilometre radius). The application area is not likely to comprise or be necessary for the maintenance of a TEC.

Given the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Databases:
SAC Bio Datasets – accessed April 2017

(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.

Comments 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).

The local area (10 kilometre radius) retains approximately 50 per cent native vegetation (15,700 hectares). The application area is located within the Jarrah Forest Interim Biogeographic Regionalisation of Australia (IBRA) bioregion and within the Shire of Donnybrook-Balingup, which retain approximately 54 per cent and 56 per cent respectively of their pre-European vegetation extents respectively (Government of Western Australia, 2016).

The application area is mapped as Beard vegetation associations 3 and 1184 and Mattiske complex 'Mumballup' all of which retain 67, 40 and 13 per cent of their pre-European vegetation extents within the Jarrah Forest IBRA bioregion respectively (Government of Western Australia, 2016; Government of Western Australia, 2017). Mattiske complex 'Mumballup' retains less than the recommended threshold, however the proposed clearing area is not representative of this complex.

The vegetation under application is predominantly in a degraded (Keighery, 1994) condition, long and linear in shape and located adjacent to an existing road. The application area does not comprise a high biological diversity or significant habitat for fauna and the proposed clearing is not likely to impact upon rare and priority flora or threatened and priority ecological communities. Therefore the vegetation under application is not likely to be considered to be a significant remnant.

Given the above, the proposed clearing is not likely to be at variance to this Principle.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in Parks and Wildlife Managed Lands (%)
IBRA Bioregion				
Jarrah Forest	4 506 660	2 416 018	54	69
Local government authority				
Shire of Donnybrook-Balingup	156 004	87 615	56	83
Beard Vegetation Association in Bioregion*				
3	2 390 591	1 607 399	67	81
1184	63 562	25 170	40	58
Mattiske Complex Associations in Bioregion**				
Mumballup	2 581	338	13	2

Methodology References:
Commonwealth of Australia (2001)
*Government of Western Australia (2016)
**Government of Western Australia (2017)
Keighery (1994)

GIS Databases:
Mattiske Vegetation Complexes
Pre-European Vegetation

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

Comments **Proposed clearing is at variance to this Principle**
A major watercourse 'Preston' River intersects the application area. A site inspection undertaken within the application area identified riparian vegetation (DER, 2017).

Given the presence of this watercourse, the native vegetation subject to the proposed clearing is considered to be growing in association with a watercourse. However, noting the size and linear shape of the application area located along an existing road reserve and the purpose of clearing is for bridge construction and road realignment, the proposed clearing is unlikely to have a significant impact on the environmental values of this watercourse.

Given the above, the proposed clearing is at variance to this Principle.

Methodology References:
DER (2017)

GIS Databases:
Hydrology, linear

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

Comments **Proposed clearing is not likely to be at variance to this Principle**
The application area is mapped within soil type 'Mu12' which is described as terraced valley and its steep side slopes: chief soils seem to be neutral and acidic red earths on upper terraces and mass movement deposits (Northcote et al., 1960-68).

Given the soil types present within the application area, the proposed clearing is not likely to cause wind erosion. A watercourse intersects the application area, however noting that the purpose of the proposed clearing is for bridge construction and road realignment, it is considered that the final bridge design is likely to manage surface water flow and prevent water erosion.

Given the size and linear shape of the application area and its location along an existing road reserve, it is considered that the proposed clearing is unlikely to cause appreciable land degradation.

Given the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology References:
Northcote et al. (1960-68)

GIS Databases:
Soils, statewide
Hydrography, linear

(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.

Comments **Proposed clearing is not likely to be at variance to this Principle**
Numerous conservation areas have been recorded within the local area (10 kilometre radius), the closest being 'Wellington State Forest' located approximately 1.7 kilometres from the application area.

Given the distance to the closest conservation area the proposed clearing is not likely to impact upon the environmental values of any conservation areas.

As assessed under Principle (a), the South West Regional Ecological Linkage Technical Report (Molloy et al., 2009) identified a regional ecological linkage that intersects with the application area and runs along Preston River. While the proposed clearing may impact upon vegetation associated within this linkage, the proposed clearing along Trevena Road is small, narrow, linear in shape and follows an existing road, and it is considered that the proposed clearing is unlikely to have a significant impact on the environmental values of this ecological linkage via fragmentation or removal of large areas of native vegetation.

Given the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology References:
Molloy et al. (2009)

GIS Databases:
Parks and Wildlife, Tenure

(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.

Comments **Proposed clearing is not likely to be at variance to this Principle**
A major watercourse 'Preston' River intersects the application area. The proposed clearing may increase sedimentation and runoff into this watercourse, however the impacts are likely to be minimal and short term. Further, noting that the purpose of the proposed clearing is for bridge construction and road realignment, it is considered that surface water flow will be managed and the final design of the bridge will prevent deterioration in the quality of surface water.

Groundwater salinity is mapped between 500-1,000 milligrams per litre total dissolved solids, which is considered to be marginal. Noting the low salinity levels and the size and narrow, linear shape of the application area, it is considered that the proposed clearing is not likely to impact upon the quality of underground water.

Given the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Databases:
Groundwater Salinity
Hydrology, linear

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

Comments **Proposed clearing is not likely to be at variance to this Principle**
Noting the size of the proposed clearing and soil types present within the application area, it is considered that the proposed clearing is unlikely to cause or exacerbate the incidence or intensity of flooding.

Given the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Databases:
Hydrology, linear

Planning instruments and other relevant matters.

Comments The former Department of Water (DoW) advised that the proposal involves bridge construction that occurs over both unallocated Crown land and also private land. The proposed clearing is within the Preston Valley Irrigation District Surface Water Area as proclaimed under the *Rights in Water and Irrigation Act 1914* (RIWI Act) (DoW, 2017).

DoW deems the main risk to be onsite erosion, sediment transport and associated turbidity in the Preston River. To mitigate against the above risks, DoW provides the following advice:

- Management of stormwater to be in accordance with the decision process for stormwater management and the Stormwater Management Manual for Western Australia;
- The drainage of stormwater and run-off directly into surface water resources should be avoided;
- Development of site-specific erosion and sediment controls (e.g. silt fences/sediment traps) to prevent the export of sediments into water resources - this should include appropriate controls for larger excavated matter such as rocks;
- It is preferable that the works be carried out during the dry period of the year when rain is least likely and flows are at their lowest; and
- Any refuelling of machinery and mechanical repairs should not take place in the vicinity of the works to ensure that contamination of the water resource with hydrocarbons/chemicals does not occur (DoW, 2017).

As the subject property is located within a proclaimed surface water area under the RIWI Act, any taking or diversion of surface water in this proclaimed area (whether by direct pumping, construction of a dam, or excavation) can be subject to licensing. Any interference of the watercourse (such as the construction of a dam or crossing, or excavation of the watercourse) will require a *permit to interfere with the bed or banks* from the department (DoW, 2017). DoW advised that a *permit to interfere with the bed or banks* has been issued to allow for bridge replacement works within unallocated Crown land (PIN: 508193), Queenwood.

One Aboriginal Site of Significance 'Preston River' has been recorded within the application area. The applicant will be notified of their obligation under the *Aboriginal Heritage Act 1972*.

This application was advertised in *The West Australian* newspaper with a 21 day submission period. Nine submissions were received in relation to this application which raised concerns in relation to impacts to a watercourse, fauna habitat, extensively cleared landscape, groundwater quality, erosion, Aboriginal heritage sites and that planning approvals remain outstanding. These concerns have been addressed under principles (a), (b), (e), (g) and planning and other matters.

The submissions also raised concerns in relation to the age of native vegetation within the application area, visual amenity, cultural heritage, alternative road alignments and planning proposals. These parameters are beyond the impacts associated with the clearing and cannot be taken into consideration within this assessment.

Methodology References:
DoW (2017)

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 Environment Conservation (DEC 2012) Fauna Profiles – Brush-tailed Phascogale (*Phascogale tapoatafa*). Department of Environment and Conservation. Western Australia
- Department of Environment Regulation (DER) (2017) Site Inspection Report for Clearing Permit Application CPS 7423/1. Site inspection undertaken 28 March 2017. Department of Environment Regulation, Western Australia (DER Ref: A1426849).
- Department of Parks and Wildlife (Parks and Wildlife) (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dpaw.wa.gov.au/>. Accessed April 2017
- Department of Parks and Wildlife (Parks and Wildlife) (2014). Ringtail Possum (*Pseudocheirus occidentalis*) Recovery Plan. [Online]. Wildlife Management Program No. 58. Department of Parks and Wildlife, Perth, WA. Available from: <http://www.dpaw.wa.gov.au/plants-and-animals/threatened-species-and-communities/197-approved-recovery-plans>.
- Department of Parks and Wildlife (2017) Regional Advice for Clearing Permit CPS 7423/1. Western Australia. (DER Ref: A1426861).
- Department of the Environment and Energy (2017a). *Dasyurus geoffroii* in Species Profile and Threats Database, Department of the Environment, Canberra. Available from: <http://www.environment.gov.au/sprat>.
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- Government of Western Australia (2016) 2016 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2016. WA Department of Parks and Wildlife, Perth.
- Government of Western Australia (2016) 2016 South West Vegetation Complex Statistics. Current as of December 2016. WA Department of Parks and Wildlife, Perth.
- 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 CPS 7423/1 Page 7 of 8

report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.

- Molloy, S., Wood, J., Hall, S., Wallrodt, S. and Whisson, G. (2009) South West Regional Ecological Linkages Technical Report, Western Australian Local Government Association and Department of Environment and Conservation, Perth.
- Northcote, K. H. with Beckmann G. G., Bettenay E., Churchward H. M., van Dijk D.C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C.H., Webb A. A. and Wright, M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10 with explanatory data.' CSIRO and Melbourne University Press: Melbourne.
- 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.