



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 7094/1
File Number: DER2015/001400-1
Duration of Permit: From 10 September 2016 to 10 September 2023

PERMIT HOLDER

Shire of Boyup Brook

LAND ON WHICH CLEARING IS TO BE DONE

McAlinden Road reserve (PINs: 11594852, 11594855 and 11594209), Bowelling and McAlinden

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 108 native trees within the areas cross-hatched yellow on attached Plan 7094/1.

CONDITIONS

1. Period in which clearing is authorised

The Permit Holder shall not clear any native vegetation after 10 September 2018.

2. 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.

3. Type of clearing authorised

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

4. 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 clearing 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.

5. 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 latirostris*);
 - (ii) Baudin's cockatoo (*Calyptorhynchus baudinii*); and
 - (iii) forest red-tailed black cockatoo (*Calyptorhynchus banksii* subsp. *naso*).
- (b) Prior to clearing, any *habitat tree(s)* identified under condition 5(a) shall be inspected by a *fauna specialist* for the presence of fauna listed in condition 5(a).
- (c) Where fauna are identified in relation to condition 5(b) of this Permit, the Permit Holder shall ensure that no clearing of the identified *habitat tree(s)* occurs, unless approved by the *CEO*.

6. Revegetation

The Permit Holder shall establish and maintain 1.08 hectares of trees in accordance with the following requirements:

- (a) the revegetation shall be located within Zone A of the gazetted *Country Areas Water Supply Act 1947* Wellington Dam Catchment Area;
- (b) by 30 June 2017 and prior to the commencement of *planting*, the Permit Holder shall provide the *CEO* with the location of revegetation activities required in accordance with condition 6 of this Permit;
- (c) trees shall be established and maintained to an average *planting* density of 1,000 stems per hectare; and
- (d) *planting* is to commence within twelve months of clearing any area authorised under this Permit.

7. Records must be kept

(a) In relation to fauna management pursuant to condition 5 of this Permit:

- (i) the location of each *habitat tree(s)* identified 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; and
- (ii) the species name of fauna reasonably likely to utilise, or that have been observed utilising, the *habitat tree(s)*.

(b) In relation to the *planting* of areas pursuant to condition 6 of this Permit:

- (i) the location of any areas *planted*, 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) a description of the *planting* activities undertaken; and
- (iii) the number of trees and density *planted*.

8. 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 7 of this Permit; and
- (ii) concerning activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding calendar year.

(b) If no clearing authorised under this Permit was undertaken between 1 January and 31 December of the preceding calendar year, a written report confirming that no clearing under this permit has been carried out must be provided to the *CEO* on or before 31 December of each year.

(c) Prior to 3 June 2023, the Permit Holder must provide to the *CEO* a written report of records required under condition 7 of this Permit where these records have not already been provided under condition 8(a) of this Permit.

DEFINITIONS

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

CEO means the Chief Executive Officer; and

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

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*;

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, that contains or has the potential to develop hollows or roosts suitable for native fauna;

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;

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

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 Parks and Wildlife Regional Weed Rankings Summary, regardless of ranking; or
- (c) not indigenous to the area concerned.

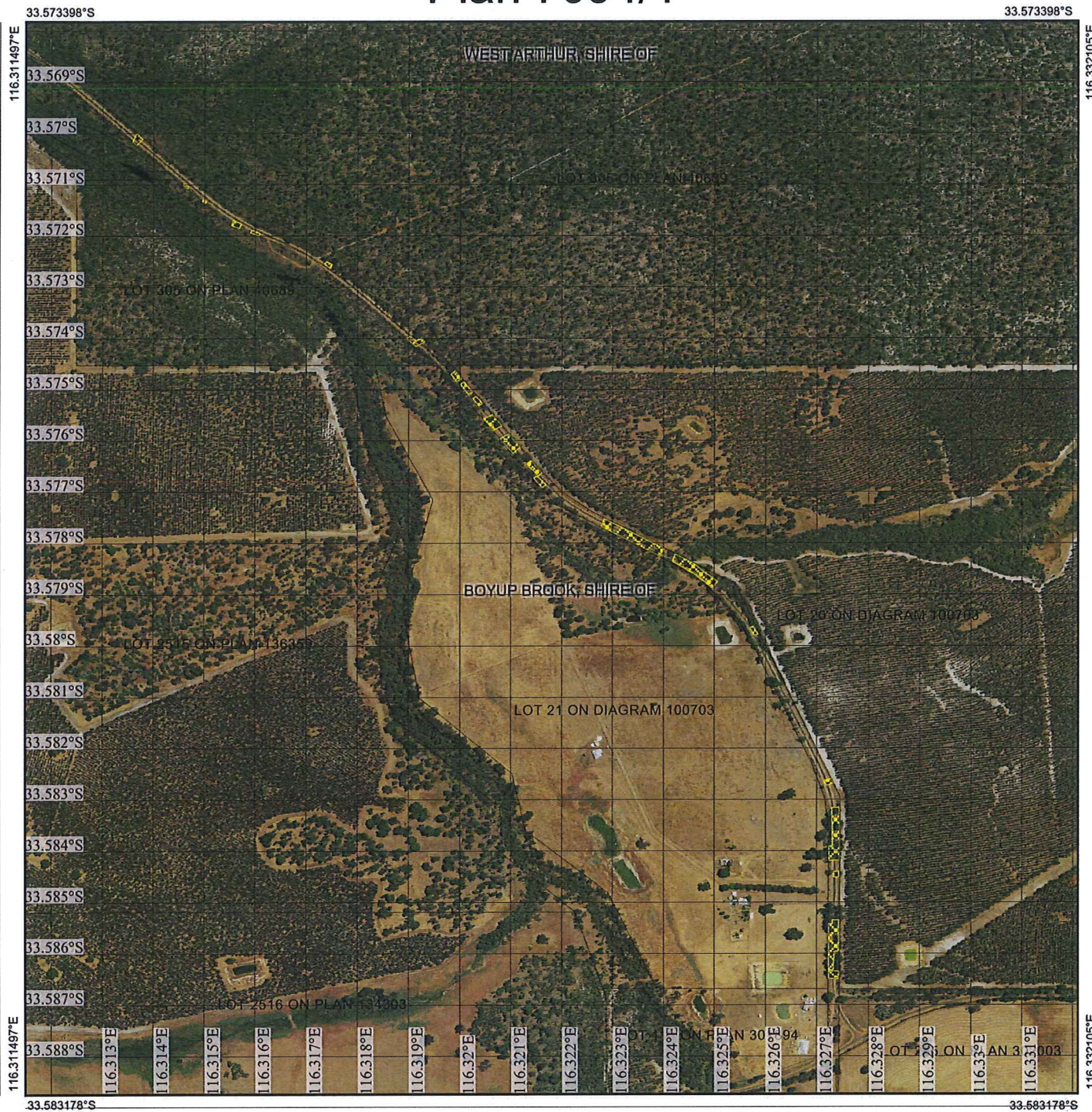


Emma Bramwell
A/ MANAGER
CLEARING REGULATION

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

11 August 2016

Plan 7094/1



Legend

-  Imagery
-  Clearing Instruments Activities
-  Local Government Authority



1:10,133

(Approximate when reproduced at A4)

GDA 94 (Lat/Long)

Geocentric Datum of Australia 1994

Emma Bramwell Date *11/08/16*
 Emma Bramwell

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



1. Application details

1.1. Permit application details

Permit application No.: 7094/1
Permit type: Area Permit

1.2. Applicant details

Applicant's name: Shire of Boyup Brook

1.3. Property details

Property: McAlinden Road reserve (PINs 11594852, 11594855 and 11594209), Bowelling and McAlinden
Colloquial name: McAlinden Road
Local Government Authority: Boyup Brook, Shire Of
DER Region: Greater Swan
DPaW District: Blackwood and Wellington
Localities: McAlinden

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 11 August 2016
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*.

The Delegated Officer determined 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 principles. The Delegated Officer determined that the proposed clearing will impact on vegetation growing in association with a watercourse and suitable nesting habitat for black cockatoos. The Delegated Officer determined that the impact to riparian vegetation is limited to individual trees and is unlikely to be significant. The Delegated Officer noted that the application area is located within Zone A (high salinity risk) of the *Country Areas Water Supply Act 1947* Wellington Dam Catchment Area, and that the Department of Water's Policy and Guidelines for the 'Granting of Licences to Clear Indigenous Vegetation' provide for the grant of a licence for government works subject to an equivalent area within Zone A being revegetated.

The clearing permit will include conditions requiring the Permit Holder to:

- check suitable nesting trees prior to the commencement of clearing activities, and to avoid clearing trees identified to be in use by black cockatoos for nesting; and
- revegetate an area of 1.08 hectares.

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description

One Beard vegetation association and two Mattiske vegetation complexes have been mapped within the application area:

- Beard vegetation association 3 is described as medium forest; jarrah (*Eucalyptus marginata* subsp. *marginata*) - marri (*Corymbia calophylla*) (Shepherd et al., 2001);
- Mattiske vegetation complex 'S' is described as a mosaic of low open woodland of *Melaleuca preissiana* - *Banksia littoralis*, closed scrub of *Myrtaceae* spp., closed heath of *Myrtaceae* spp. and sedgelands of *Baumea* and *Leptocarpus* spp. on seasonally wet or moist sand, peat and clay soils on valley floors in all climatic zones;

Clearing Description

The applicant has proposed to clear 108 native trees within McAlinden Road reserve (PIN: 11594852, 11594855 and 11594209, Bowelling and McAlinden, for the purpose of undertaking road upgrades.

Vegetation Condition

Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).

Comment

The vegetation condition was determined during a site inspection conducted by officers of the Department of Environment Regulation (DER) on 28 June 2016 (DER, 2016).

and

- Mattiske vegetation complex 'WG' is described as woodland of jarrah -marri on sandy-gravels on low divides in the subhumid zone (Mattiske and Havel, 1998).

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 application area comprises 108 jarrah, marri and wandoo trees along a 2.35 kilometres stretch of McAlinden Road. Vegetation within the application area is in degraded (Keighery, 1994) condition, with very few native midstorey and understorey species present (DER, 2016). The understorey within the application area is predominantly comprised of non-indigenous weed species (DER, 2016).

Two priority flora species have been recorded within the local area (10 kilometre radius around the application area) (*Calochilus* sp. Boyup Brook [E. Chapman s.n. 12/10/2002] P1; *Banksia* sp. Boyup Brook [L.W. Sage LWS 2366] P1). No rare flora have been recorded within the local area. Given the minimal number of native understorey species and degraded (Keighery, 1994) condition of the vegetation (DER, 2016), it is considered that the application area is unlikely to contain significant habitat for rare or priority flora species.

A site inspection of the application area identified two large trees with hollows (DER, 2016), which provide suitable nesting habitat for Carnaby's cockatoo (*Calyptorhynchus latirostris*), Baudin's cockatoo (*Calyptorhynchus baudinii*), and forest red-tailed black cockatoo (*Calyptorhynchus banksii* subsp. *naso*). These species are listed as rare or likely to become extinct under the *Wildlife Conservation Act 1950*.

No threatened ecological communities (TECs) or priority ecological communities (PECs) have been recorded within the local area. The vegetation within the application area is not considered to represent a TEC or PEC.

Although the application area contains suitable habitat for black cockatoos, it is considered that the overall biological diversity is limited.

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

Methodology

References:

DER (2016)
Keighery (1994)

GIS Databases:

- SAC bio datasets (accessed August 2016)

(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

The application area comprises 108 jarrah, marri and wandoo trees over an understorey dominated by weed species (DER, 2016).

The vegetation within McAlinden Road reserve is in a degraded (Keighery, 1994) condition, and vegetation cover is fragmented (DER, 2016). Based on aerial imagery, it is evident that other habitat linkages that occur near the application area are in a better condition, providing greater vegetative cover. Given this, it is considered that the application area is unlikely to provide a significant fauna habitat linkage within the local area (10 kilometre radius).

A total of two threatened, one migratory, one other specially protected and one priority 4 fauna species have been recorded within the local area (Parks and Wildlife, 2007-). Of these, based on the habitat identified during a site inspection (DER, 2016), it is considered that the application area is most likely to be utilised by the forest red-tailed black cockatoo (*Calyptorhynchus banksii* subsp. *naso*) and Carnaby's cockatoo (*Calyptorhynchus latirostris*). While the Baudin's cockatoo (*Calyptorhynchus baudinii*) has not been recorded within the local area, the application area is within the known range of this species, and the application area may also be utilised by Baudin's cockatoos. These three species are collectively known as black cockatoos.

'Breeding habitat' for black cockatoos is defined as trees of species known to support breeding within the range of the species which either have a suitable nest hollow or are of a suitable diameter at breast height (DBH) to develop a nest hollow. For most tree species, a suitable DBH is 500 millimetres (Commonwealth of Australia, 2012).

During a site inspection, two large trees were observed within the application area that contained hollows suitable for nesting by black cockatoos (DER, 2016). Chewing was observed around the hollows, which indicates recent use by avian fauna and potentially black cockatoos (Parks and Wildlife, 2016; DER, 2016). On this basis it is considered that the proposed clearing will impact on suitable nesting habitat for black cockatoos.

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

Prior to any clearing, the applicant will be required to engage a suitably qualified person to identify and check habitat trees for the presence of black cockatoos and to avoid clearing habitat trees that are in use by black cockatoos for nesting.

Methodology References:
Commonwealth of Australia (2012)
DER (2016)
Keighery (1994)
Parks and Wildlife (2007-)
Parks and Wildlife (2016)

GIS Databases:
- Imagery

(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**
Based on available databases, there are no records of rare flora species within the local area (10 kilometre radius).

Given the minimal number of native understorey species and degraded (Keighery, 1994) condition of vegetation (DER, 2016), it is considered that the application area is unlikely to contain habitat for rare flora. The application is for the removal of 108 trees, none of which are rare flora species.

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

Methodology References:
DER (2016)
Keighery (1994)

GIS Database:
- SAC bio datasets (accessed August 2016)

(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**
The application area is representative of Beard vegetation association 3 and Mattiske vegetation complex WG, described as a jarrah - marri medium forest/ woodland (Shepherd et al., 2001; Mattiske and Havel, 1998).

No threatened ecological communities (TECs) have been recorded within the local area (10 kilometre radius). The vegetation within the application area is not considered to represent a TEC.

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

Methodology References:
Mattiske and Havel (1998)
Shepherd et al. (2001)

GIS Databases:
- SAC bio datasets (accessed August 2016)

(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 application area includes 108 trees within the McAlinden Road reserve, which is bordered by the Greater Preston National Park and areas cleared for agricultural land uses.

The application area is located within the Jarrah Forest Interim Biogeographic Regionalisation of Australia (IBRA) bioregion which retains approximately 54 per cent of its pre-European vegetation extent (Government of Western Australia, 2015).

The application area is located within the Shire of Boyup Brook which retains approximately 44 per cent of its pre-European vegetation extent. Beard vegetation association 3 retains approximately 67 per cent of its pre-European extent within the IBRA bioregion (Government of Western Australia, 2015). Mattiske vegetation complexes WG and S retain approximately 68 and 76 per cent of their mapped pre-European extent, respectively (Government of Western Australia, 2015).

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).

None of the vegetation extents within the IBRA bioregion, local government area or application area are below the 30 per cent threshold.

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	2,422,783	54	69
Shire*				
Shire of Boyup Brook	282,642	125,100	44	47
Beard vegetation association in Bioregion*				
3	2,390,591	1,611,061	67	81
Mattiske vegetation complex **				
WG	38,162	25,772	68	48
S	53,658	40,732	76	64

Methodology

References:

Commonwealth of Australia (2001)

*Government of Western Australia (2015)

**Parks and Wildlife (2015)

GIS Database:

- Parks and Wildlife tenure

- Imagery

(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

One minor, non-perennial watercourse is mapped adjacent to the application area. This watercourse represents a drainage line that runs under McAlinden Road via culverts.

The application area contains predominantly jarrah, marri and wandoo trees (DER, 2016). The application area includes flooded gum (*Eucalyptus rudis*), paperbark (*Melaleuca raphiophylla*) and swamp banksia (*Banksia littoralis*), and the application states that individual trees of these species are proposed to be cleared.

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

Noting the extent of the proposed clearing and the shape of the application area, it is considered that the impact to vegetation growing in association with an adjacent watercourse is unlikely to significantly impact on the watercourse.

Methodology

GIS Database:

- Hydrography, 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 soil type within the application area is mapped as lateritic gravels and block laterite, with chief soils of ironstone gravels with sandy and earthy matrices (Northcote et al., 1960-68). These soils were confirmed to be present during a site inspection (DER, 2016), and are not prone to appreciable land degradation via wind or water erosion following the removal of native vegetation.

One minor, non-perennial watercourse is located adjacent to the application area. The application area is also located within Zone A (high salinity risk) of the *Country Areas Water Supply Act 1947* Wellington Dam Catchment Area (DoW, 2016b).

The application area comprises 108 trees within a 2.35 kilometre stretch of McAlinden Road reserve. Given the size and shape of the application area and soil type present, the proposed clearing is not likely to cause appreciable land degradation via erosion, salinity, waterlogging or eutrophication.

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

Methodology References:
DER (2016)
DoW (2016b)
Northcote et al. (1960-68)

(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

McAlinden Road is partly located within the Greater Preston National Park, with the McAlinden Road reserve excised from the National Park. The northern third of the application area is bordered by the Greater Preston National Park, with the southern two-thirds bordered by freehold land cleared for agricultural land uses.

The portion of the application area adjacent to the National Park comprises scattered trees, which are not likely to be significant in maintaining the environmental values of this conservation area.

Clearing activities adjacent to conservation areas have the potential to facilitate the spread of weeds and dieback (*Phytophthora* sp.) into native vegetation within conservation estate. However, noting that the vegetation within the application area is in a degraded (Keighery, 1994) condition with a ground cover of predominantly weed species (DER, 2016), it is considered that the proposed clearing activities are not likely to have an impact on the environmental values of the Greater Preston National Park.

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

The potential for the proposed clearing to result in the spread of weeds and dieback within the Greater Preston National Park may be minimised by the implementation of weed and dieback management practices.

Methodology References:
DER (2016)
Keighery (1994)

GIS Databases:
- Imagery
- 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

One minor, non-perennial watercourse is mapped adjacent to the application area. This watercourse represents a drainage line that runs under McAlinden Road via culverts. Given that existing infrastructure has been implemented to maintain the flow of this watercourse, and that no native vegetation is proposed to be cleared within the watercourse, it is considered that the proposed clearing is unlikely to impact the quality of surface water in this area.

Groundwater salinity in the local area (10 kilometre radius) is mapped as 1,000 to 3,000 milligrams per litre total dissolved solids, which is considered to be brackish to moderately saline. The clearing of 108 trees along a 2.35 kilometre stretch of road is not likely to impact the quality of groundwater on a local or regional scale.

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

Methodology GIS Databases:
- Groundwater salinity, statewide
- Hydrography, linear
- Imagery

(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

Mean annual rainfall in Collie East, the nearest weather station to the application area, is 709 millimetres with the majority of rainfall occurring during winter months (BoM, 2016).

The mapped soil type within the application area comprises lateritic gravels and block laterite, with chief soils of ironstone gravels with sandy and earthy matrices (Northcote et al., 1960-68). These soils are likely to be permeable to rainfall following the removal of vegetation.

One minor, non-perennial watercourse is located adjacent to the application area. This watercourse may receive increased runoff as a result of the proposed clearing.

Noting the extent of clearing proposed and the shape of the application area, it is considered that the proposed

clearing is unlikely to cause or exacerbate the incidence or intensity of flooding on a local or regional scale.

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

Methodology References:
BoM (2016)
Northcote et al. (1960-68)

Planning instruments and other relevant matters.

Comments The application area is located within the Collie River Irrigation District proclaimed under the *Rights in Water and Irrigation Act 1914*. Any taking or diversion of surface water can be subject to licensing, and any interference with a watercourse (such as the clearing of riparian vegetation) requires a permit to interfere with bed or banks from the Department of Water (DoW) (DoW, 2016a). The application area includes flooded gum (*Eucalyptus rudis*), paperbark (*Melaleuca raphiophylla*) and swamp banksia (*Banksia littoralis*), and the application states that individual trees of these species are proposed to be cleared. The applicant is advised to contact DoW for advice in respect to this matter.

The application area is located within the *Country Areas Water Supply Act 1947* Wellington Dam Catchment Area. The application area is located within Zone A of the catchment, which has a high salinity risk (DoW, 2016b). DoW Policy and Guidelines for the "Granting of Licences to Clear Indigenous Vegetation" provide for the grant of a licence for government works subject to an equivalent area within Zone A being revegetated (DoW, 2016b). DoW calculated the equivalent area of proposed clearing as 1.08 hectares, based on 100 trees per hectare, and noting the extent of the proposed clearing DoW advised that the amalgamation of similar offset requirements over time to create sustainable revegetation areas is acceptable (DoW, 2016b).

There are two registered Aboriginal Sites of Significance within the 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 application was advertised in *The West Australian* on 15 June 2016 for a 21 day submission period. No submissions were received.

Methodology References:
DoW (2016a)
DoW (2016b)

GIS Databases:
- Aboriginal sites register system

4. References

- Bureau of Meteorology (BoM) (2016) Climate statistics for Australian locations, Collie East. Bureau of Meteorology. url: http://www.bom.gov.au/climate/averages/tables/cw_009994.shtml. Accessed August 2016.
- 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, Canberra.
- Department of Environment Regulation (2016) CPS 7094/1 site inspection report. Department of Environment Regulation. DER REF: A1141945.
- 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 July 2016.
- Department of Parks and Wildlife (Parks and Wildlife) (2015) 2015 South West Forest and Swan Coastal Plain Vegetation Complex Statistics: a report prepared for the Department of Environment Regulation. Current as of March 2015. Department of Parks and Wildlife, Perth, Western Australia.
- Department of Parks and Wildlife (Parks and Wildlife) (2016) Advice received from the Department of Parks and Wildlife on 29 July 2016. DER REF: A1141937
- Department of Water (DoW) (2016a) Advice received from the Department of Water on 5 July 2016. DER REF: A1125412.
- Department of Water (DoW) (2016b) Advice received from the Department of Water on 19 July 2016. DER REF: A1134552.
- Government of Western Australia (2015) 2015 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2015. 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 report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.
- 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.