



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

| | |
|-------------------------------|---------------------------------------|
| Purpose Permit number: | CPS 7263/1 |
| Permit Holder: | Shire of Quairading |
| Duration of Permit: | 16 September 2017 – 16 September 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 road upgrades.

2. Land on which clearing is to be done

Badjaling Road reserve (PIN: 1361962), Badjaling.

3. Area of Clearing

The Permit Holder must not clear more than 0.189 hectares of native vegetation within the area hatched yellow on attached Plan 7263/1.

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.

5. 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.

PART II – MANAGEMENT CONDITIONS

6. 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*:

- (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (ii) ensure that no *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (iii) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

DEFINITIONS

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

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 mean 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 Regional Weed Rankings Summary, regardless of ranking; or
- (c) not indigenous to the area concerned; and
- (d) that is a species permitted for planting under a Pastoral Diversification Permit issued by the Department of Planning, Lands and Heritage.

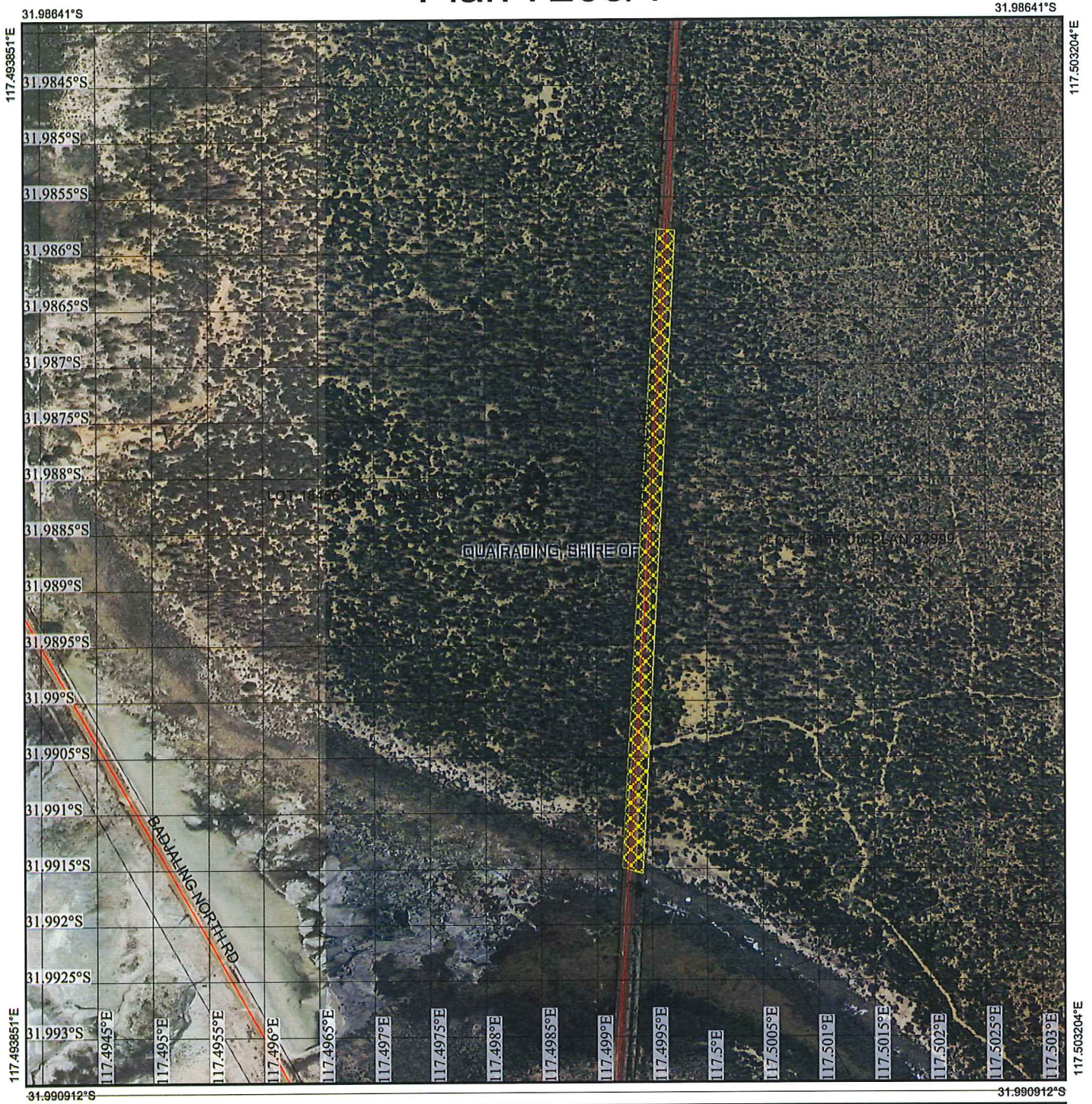


Mathew Gannaway
MANAGER
CLEARING REGULATION

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

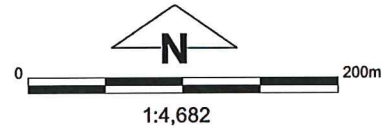
21 August 2017

Plan 7263/1



Legend

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



(Approximate when reproduced at A4)
GDA 94 (Lat/Long)
Geocentric Datum of Australia 1994

MB
Matthew Gannaway Date 21/08/2017

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.: 7263/1
Permit type: Purpose Permit

1.2. Applicant details

Applicant's name: Shire of Quairading

1.3. Property details

Property: Badjaling Road Reserve (PIN 1361962), Badjaling
Colloquial name: Shire of Quairading
Local Government Authority: Capel, Shire of
DER Region: Greater Swan
DPaW District: Central Wheatbelt
LCDC: Quairading
Localities: Badjaling

1.4. Application

| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
|--------------------|-----------|--------------------|--------------------------------|
| 0.189 | | Mechanical Removal | Road construction and upgrades |

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 21 August 2017

Reasons for Decision: The applicant originally applied to clear 0.69 hectares of native vegetation on 6 September 2016. The applicant reduced the application area to 0.189 hectares of native vegetation to avoid and minimise environmental impacts.

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), and it has been concluded that the proposed clearing may be at variance to Principles (e) and (h), and is not likely to at variance to the remaining Principles.

The application area is located adjacent to remnant native vegetation, Badjaling Nature Reserve and is located within an area that has been extensively cleared. Weed management measure will help mitigate impacts to Badjaling Nature Reserve and adjacent vegetation.

The Delegated Officer determined that the proposed clearing of 0.189 hectares of native vegetation, linear in shape and located adjacent to an existing road 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 |
|--|--|--|--|
| Two Beard vegetation associations have been mapped within the application area (Shepherd et al., 2001): | The applicant proposes to clear up to 0.189 hectares of native vegetation within Badjaling Road reserve (PIN 1361962), Badjaling, for the purpose of road construction and upgrades. | Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994). To: Good: Vegetation structure significantly altered by very obvious signs of multiple disturbance. Retains basic vegetation structure or ability to regenerate (Keighery, 1994). | The application area is located within the area assessed under previously refused clearing permit application CPS 6703/1, which encompassed the current application area and additional sections of Badjaling Road reserve. The condition of the vegetation was determined via a site inspection undertaken by officers from the former Department of Environment Regulation (DER) for clearing permit application CPS 6703/1 (DER, 2015). A targeted flora survey was |
| <ul style="list-style-type: none"> Beard vegetation association 951 is described as succulent steppe with sparse woodland and thicket; York gum and Kondinin blackbutt over teatree thicket and samphire; and Beard vegetation | | | |

association 694 is described as scrub-heath on yellow sandplain *Banksia* sp. and *Xylomelum* sp. alliance in the Geraldton sandplain and Avon Wheatbelt regions.

conducted on 29 October 2015 (Hort, 2015). The survey included the application area and five meters either side of Badjaling Road for a distance of approximately 1.6 kilometres.

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 is to clear 0.189 hectares within Badjaling Road reserve for the purpose of road upgrades. The applicant reduced the application area to avoid and minimise environmental impacts from 0.69 hectares to 0.189 hectares. The amended area proposes to clear 1.5 metres either side of a 0.63 kilometre stretch along Badjaling Road reserve.

The vegetation within the application area is in 'Excellent' to 'Good' condition (Keighery, 1994; DER, 2015). The portion of the Badjaling Road reserve within which the application area is located is bordered on both sides by the Badjaling Nature Reserve.

The local area (defined as a 10 kilometres radius around the perimeter of the application area) has been extensively cleared for agricultural land uses, and contains approximately 11 per cent of its pre-European native vegetation.

One of the Beard vegetation associations mapped within the application area has less than the recommended 30 per cent threshold of its pre-European extent remaining (discussed further under Principle (e)).

According to available databases, five rare and seventeen priority flora species have been recorded within the local area. A flora survey conducted within the application area and within immediate surrounds of the vegetation either side of the road on 29 October 2015 did not record any rare or priority flora within the application area (Hort, 2015).

Two occurrences of the priority ecological community (PEC) '*Banksia prionotes* and *Xylomelum angustifolium* low woodlands on transported yellow sands' occur within the local area, with the closest occurrence being approximately 35 metres east of the application area. This PEC is known from 11 occurrences with a total extent of approximately 314 hectares, and occurs across a narrow distribution of approximately 110 kilometres from Ucarty in the north to Bruce Rock in the south-east.

The flora survey identified *Banksia prionotes* and *Xylomelum angustifolium* within the survey area, which are indicative of the PEC (Hort, 2015; Parks and Wildlife, 2015b). Noting that the depth of the yellow sand decreases towards the road, the former Department of Parks and Wildlife (Parks and Wildlife) advised that the PEC is not likely to extend to the road, and that if it did, it would not be a high quality occurrence of this PEC (Parks and Wildlife, 2015b).

The proposed clearing will increase the risk of weeds spreading into adjacent remnant vegetation. Weed management measures will assist in mitigating this risk.

The application area contains vegetation in 'Excellent' to 'Good' condition, is located adjacent to Badjaling Nature Reserve, includes an under-represented vegetation association and is located within an extensively cleared local area. However, noting the reduction in the size of the application area, linear in shape and that the applicant intends to clear to a maximum of 1.5 metres either side of the existing road, with vegetation remaining within the road reserve, the application area is not likely to contain a high level of biological diversity within the local area.

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

Methodology

References:
DER (2015)
Parks and Wildlife (2015b)
Hort (2015)
Keighery (1994)

GIS Databases:
SAC Bio datasets - accessed February 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 is not likely to be at variance to this Principle

The application area may be necessary for the maintenance of fauna habitats within the adjacent Badjaling Nature Reserve. The proposed clearing may contribute to the degradation of these habitats as a result of edge effects. Weed management measure will assist in mitigating risks to adjacent vegetation.

According to available databases, the shield-backed trapdoor spider (*Idiosoma nigrum*), listed as rare or likely to become extinct under the *Wildlife Conservation Act 1950*, has been recorded within the local area (Parks and Wildlife, 2007-). The Approved Conservation Advice for this species states "The shield-back spider typically inhabits clay soils of eucalypt woodlands and acacia vegetation, and relies heavily on leaf-litter and twigs to build its burrow" (Threatened Species Scientific Committee [TSSC], 2013). Noting the vegetation and soil types found within the application area, it is considered that this species is unlikely to occur within the application area.

Noting the reduction in the size of the application area that is linear in shape and that vegetation will remain adjacent to the application area within the road reserve, the proposed clearing is not likely to impact upon significant habitat for fauna indigenous to Western Australia.

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

Methodology

References:
Parks and Wildlife (2007-)
TSSC (2013)

GIS Databases:
SAC Bio datasets (accessed February 2017)

(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

Five species of rare flora have been recorded within the local area. The flora survey did not record any rare flora within the application area (Hort, 2015). The application area is not likely to include, or be necessary for the continued existence of, rare flora.

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

Methodology

References:
Hort (2015)

GIS Databases:
SAC Bio datasets (accessed February 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

The threatened ecological community (TEC) 'Eucalypt Woodlands of the Western Australian Wheatbelt' occurs within the local area. This TEC was classified as critically endangered under the *Environment Protection and Biodiversity Conservation Act 1999* in December 2015.

The Approved Conservation Advice for this TEC states that the TEC contains specified *Eucalyptus* species as key canopy species, with 10 per cent minimum crown cover (TSSC, 2015). The DER site inspection confirmed that the application area does not meet the key diagnostic characteristics of this TEC (DER, 2015). The application area is not likely to comprise the whole or a part of, 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

References:
DER (2015)
TSSC (2015)

GIS Database:
SAC Bio datasets - accessed February 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 may be 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 area under application is located within the Avon Wheatbelt interim biogeographic regionalisation of Australia (IBRA) bioregion. This IBRA bioregion retains approximately 19 per cent of its pre-European vegetation extent (Government of Western Australia, 2016).

The local area (defined as a 10 kilometres radius around the perimeter of the application area; 33,732 hectares) has been extensively cleared, and contains approximately 11 per cent of its pre-European native vegetation (3,631 hectares). Vegetation within the application area is in good to excellent (Keighery, 1994) condition (DER, 2015).

As indicated in Table 1, the Avon Wheatbelt bioregion, Shire of Quairading, local area and one of the mapped Beard vegetation associations have less than the recommended 30 per cent threshold of their pre-European extents remaining (Government of Western Australia, 2016). Although Beard vegetation association 694 has approximately seven per cent of its pre-European extent remaining, the extent within the application area represents less than 0.005 per cent of the overall current extent.

Given the vegetation representations outlined above, the application area is considered to be located within an area that has been extensively cleared. The application area contains vegetation in 'Excellent' to 'Good' condition. However, noting the reduction in size of the proposed clearing, the relatively small proposed clearing area (0.189 hectares), linear in shape and located adjacent to an existing road, the proposed clearing is not considered to be significant as a remnant of native vegetation.

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

Table 1: Vegetation extents

| | Pre-European (ha) | Current Extent (ha) | Remaining (%) | Extent in DPaW Managed Lands (%) |
|--|----------------------|------------------------|------------------|--|
| IBRA Bioregion¹ | | | | |
| Avon Wheatbelt | 9,517,110 | 1,763,070 | 19 | 10 |
| Local Government Authority¹ | | | | |
| Shire of Quairading | 201,651 | 18,905 | 9 | 8 |
| Beard vegetation association in Bioregion¹ | | | | |
| 694 | 173,922 | 12,255 | 7 | 13 |
| 951 | 27,508 | 11,148 | 41 | 17 |

Methodology References:
Commonwealth of Australia (2001)
¹Government of Western Australia (2016)

(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 not likely to be at variance to this Principle

There are no watercourses or wetlands mapped within the application area. A flood limit area associated with a mapped wetland (subject to inundation) is located immediately south of the application area. The application area is not likely to contain vegetation growing in, or in association with, a watercourse or wetland.

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

Methodology GIS Databases:
Hydrography, hierarchy
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 local area has a relatively flat topography, 230-240 metres above sea level.

The soil types mapped within the application area are Kellerberrin system - alkaline red shallow loamy duplex soils and alkaline grey sandy duplexes mainly in branch valleys with calcareous loamy earth and Kellerberrin 5 subsystem - hard cracking clay and dunes on flat broad valleys limited to the western portion of the northern zone of ancient drainage. These soil types are mapped as having a high to extreme wind erosion risk.

Mean annual rainfall in Kellerberrin, the nearest weather station to Badjaling, is 329.9 millimetres (Bureau of Meteorology, 2017). The local area has an annual approximate evapotranspiration of 400 millimetres per annum.

Groundwater within the application area is considered to be 'brine', mapped at greater than 35,000 milligrams per litre total dissolved solids. The removal of deep-rooted perennial vegetation can contribute to the rise of groundwater and cause increased salinity at the surface.

Noting the narrow, linear shape of the application area and the extent of the proposed clearing, the proposed clearing is not likely to cause appreciable land degradation in the forms of wind erosion, water erosion, waterlogging or salinity.

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

Methodology References:
Bureau of Meteorology (2017)

GIS Databases:
Degradation hazards
Evapotranspiration, area actual
Rainfall, mean annual
SAC Bio datasets - accessed December 2016
Soils, subsystems
Wheatbelt contours (50m)

(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 may be at variance to this Principle**
The application area is bordered on both sides by the Badjaling Nature Reserve. The application area provides a buffer to the Badjaling Nature Reserve from edge effects associated with Badjaling Road. The proposed clearing may degrade the environmental values of Badjaling Nature Reserve through spread of weeds and incidental disturbance.

Parks and Wildlife advised that the Badjaling Nature Reserve is an important wheatbelt remnant that supports rare flora, and that any loss of vegetation is significant and will result in the edge effects of the road being extended further into the reserve (Parks and Wildlife, 2015a). Parks and Wildlife recommended that, if permitted, the proposed clearing is clearly demarcated to ensure accidental destruction of vegetation is avoided, is kept to the minimum necessary for essential works, and is undertaken in a manner that minimises unnecessary loss of vegetation including through drainage works, and that machinery is clean on arrival to reduce the potential for disease and weed introduction (Parks and Wildlife, 2015a).

Given the above, the proposed clearing may be at variance to this Principle. Impacts to the Badjaling Nature Reserve may be minimised by the implementation of weed management measures.

Methodology References:
Parks and Wildlife (2015a)

GIS Database:
Parks and Wildlife, Tenure
SAC Bio datasets - accessed December 2016

(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**
Noting the absence of wetlands or watercourses and relatively flat topography within the application area, the proposed clearing is not likely to cause deterioration in the quality of surface water.

Noting that groundwater salinity within the application area is 'brine', and noting the narrow, linear shape of the application area and the extent of the proposed clearing, the proposed clearing is not likely to cause deterioration in the quality of groundwater.

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

Methodology GIS Databases:
Groundwater salinity, statewide
Hydrography, linear
Wheatbelt contours (50m)

(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 absence of wetlands or watercourses, mapped soil type and relatively flat topography within the application area, the extent of the proposed clearing, and that the annual evapotranspiration exceeds the average annual rainfall, the proposed clearing is not likely to cause or exacerbate the incidence or intensity of flooding in the local area.

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

Methodology GIS Databases:
100 Year Flood - Floodplain
Hydrography, linear
Soils, subsystems
Wheatbelt contours (50m)

Planning instruments and other relevant matters.

Comments The clearing permit application was advertised in *The West Australian* newspaper on 3 October 2016 for a 21 day submission period. No public submissions were received in relation to this application.

The original application was for the proposed clearing of 0.69 hectares of native vegetation. On 18 April 2017 the Shire of Quairading was advised that the proposed clearing identified environmental impacts to significant remnant native vegetation within an extensively cleared area and Badjaling Nature Reserve.

On 5 July 2017, the Shire of Quairading reduced the application area from 0.69 hectares to 0.189 hectares. The Shire of Quairading advised that the amended area proposes to clear 1.5 metres either side of a 0.63 kilometre stretch along Badjaling Road reserve.

The Shire of Quairading previously applied for a clearing permit to clear 1.5 hectares of native vegetation within the current application area and an additional section of Badjaling Road reserve (CPS 6703/1). After finding that the proposed clearing was at variance to Principles (a), (e) and (f) and may be at variance to Principles (b) and (h), and in the absence of further information from the applicant regarding how the environmental impacts associated with the proposed clearing would be avoided, minimised or offset, the Delegated Officer refused to grant a clearing permit on 30 June 2016.

The application area is located within the Avon River System Surface Water Area proclaimed under the *Rights in Water and Irrigation Act 1914*. Notwithstanding the absence of wetlands or watercourses within the application area, the Shire of Quairading is encouraged to liaise with Regulatory Services (Water) within the Department of Water and Environmental Regulation in respect to this matter.

No Aboriginal sites of significance are mapped within the application area.

Methodology GIS Databases:
Aboriginal Sites Register System
RIWI Act, Areas
RIWI Act, Surface Water Areas and Irrigation Districts

4. References

- Avon Catchment Council (2007) Shield – backed Trapdoor Spider (*Idiosoma nigrum*) Conservation Plan. Avon Catchment Council, Western Australia.
- Burbidge, A. (2004) Threatened animals of Western Australia. Department of Conservation and Land Management, Western Australia.
- Bureau of Meteorology (2017) Climate statistics for Kellerberrin. Bureau of Meteorology. URL: http://www.bom.gov.au/climate/averages/tables/cw_010073.shtml. Accessed February 2017.
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Department of Environment Regulation (DER) (2015) Site inspection report for clearing permit application CPS 6703/1, 4 September 2015. Department of Environment Regulation, Western Australia (DER ref. A973250).
- 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 December 2016.
- Department of Parks and Wildlife (Parks and Wildlife) (2015a) Advice received in relation to clearing permit application CPS 6703/1, received 25 September 2015. Department of Parks and Wildlife, Western Australia (DER ref. A987142).
- Department of Parks and Wildlife (Parks and Wildlife) (2015b) Advice received in relation to clearing permit application CPS 6703/1, received 22 December 2015. Department of Parks and Wildlife, Western Australia (DER ref. A1052983).
- Government of Western Australia (2016) Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2016. Department of Parks and Wildlife, Perth.
- Hort, B (2015) Flora survey 29 October 2015 – Badjaling Road CPS6703/1 (DER ref. A1020948).
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- 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.
- Threatened Species Scientific Committee (TSSC) (2015) Approved Conservation Advice (including listing advice) for the Eucalypt Woodlands of the Western Australian Wheatbelt. Department of the Environment. URL: <http://www.environment.gov.au/biodiversity/threatened/communities/pubs/128-conservation-advice.pdf>.
- Threatened Species Scientific Committee (TSSC) (2013). Commonwealth Conservation Advice on *Idiosoma nigrum* (shield-back trapdoor spider). Canberra: Department of Sustainability, Environment, Water, Population and Communities. URL: <http://www.environment.gov.au/biodiversity/threatened/species/pubs/66798-conservation-advice.pdf>.