GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS
Area Permit Number: CPS 7110/1
Duration of Permit: From 29 October 2016 to 24 February 2026

PERMIT HOLDER
Mr Kim George Smith

LAND ON WHICH CLEARING IS TO BE DONE
Lot 1678 on Deposited Plan 202987, Bow Bridge

AUTHORISED ACTIVITY
The Permit Holder shall not clear more than 1.544 hectares of native vegetation within the area cross-hatched yellow on attached Plan 7110/1.

CONDITIONS

1. **Period in which clearing is authorised**
   The Permit Holder shall not clear any native vegetation after 24 February 2021.

2. **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*:
   (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
   (b) ensure that no *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
   (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

3. **Retain vegetative material and topsoil, revegetation and rehabilitation**
   The Permit Holder shall:
   (a) retain the vegetative material and topsoil removed by clearing authorised under this Permit and stockpile the vegetative material and topsoil in an area that has already been cleared.
   (b) Prior to 24 May 2021, *revegetate* and *rehabilitate* the area cross-hatched yellow on attached Plan 7110/1 by:
      (i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land; and
      (ii) laying the vegetative material and topsoil retained under condition 3(a) on the cleared area .
   (c) within 24 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 3(b) of this Permit:
      (i) engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and
      (ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under condition 3(c)(i) of this Permit will not result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, *revegetate* the area by deliberately *planting* and/or *direct seeding* native vegetation that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area and ensuring only *local provenance* seeds and propagating material are used.
   (d) Where additional *planting* or *direct seeding* of native vegetation is undertaken in accordance with condition 3(c)(ii) of this permit, the Permit Holder shall repeat condition 3(c)(i) and 3(c)(ii) within 24 months of undertaking the additional *planting* or *direct seeding* of native vegetation.

(e) Where a determination by an *environmental specialist* that the composition, structure and density within areas *revegetated* and *rehabilitated* will result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, as determined in condition 3(c)(i) and 3(c)(ii) of this permit, that determination shall be submitted for the CEO's consideration. If the CEO does not agree with the determination made under condition 3(c)(ii), the CEO may require the Permit Holder to undertake additional *planting* and *direct seeding* in accordance with the requirements under condition 3(c)(ii).

DEFINITIONS

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

direct seeding means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

environmental specialist means a person who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit, or who is approved by the CEO as a suitable environmental specialist.

fill means material used to increase the ground level, or fill a hollow;

local provenance means native vegetation seeds and propagating material from natural sources within 20 kilometres and the same Interim Biogeographic Regionalisation for Australia (IBRA) subregion of the area cleared.

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

regenerate/ed/ion means re-establishment of vegetation from in situ seed banks and propagating material (such as lignotubers, bulbs, rhizomes) contained either within the topsoil or seed-bearing *mulch*;

rehabilitate/ed/ion means actively managing an area containing native vegetation in order to improve the ecological function of that area;

revegetate/ed/ion means the re-establishment of a cover of *local provenance* native vegetation in an area using methods such as natural *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.

weed/s means any plant -

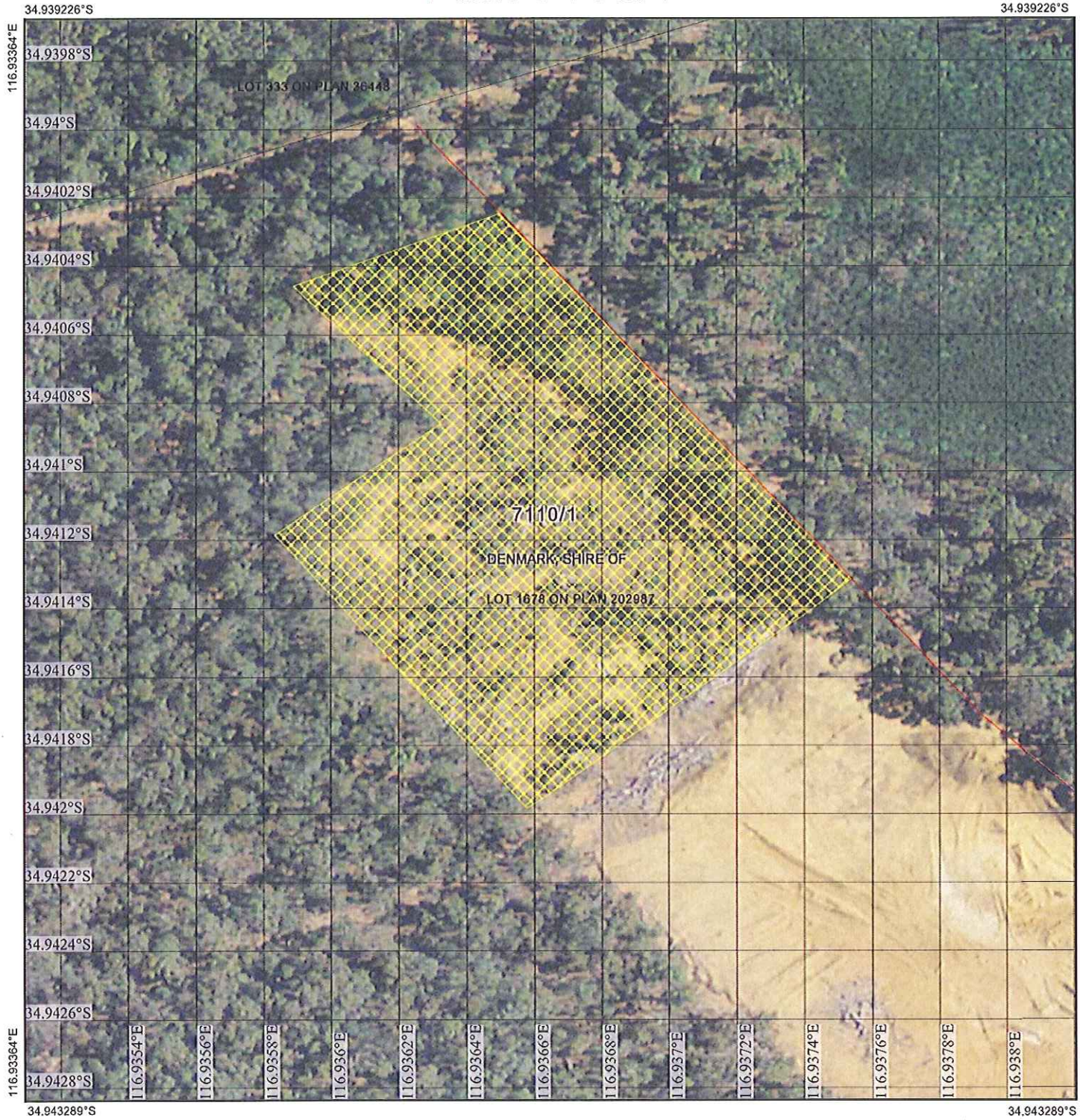
(a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
(b) published in a Department of Parks and Wildlife Regional Weed Summary, regardless of ranking; or
(c) not indigenous to the area concerned.

Samara Rogers
A/ MANAGER
CLEARING REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

29 September 2016

Plan 7110/1



Legend

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

N

0 50m

1:1,500

(Approximate when reproduced at A4)

GDA 94 (Lat/Long)

Geocentric Datum of Australia 1994

..... Date 29/9/2016

Samard Rogers

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

GOVERNMENT OF WESTERN AUSTRALIA

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Government of Western Australia
Department of Environment Regulation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 7110/1
Permit type: Area Permit

1.2. Applicant details

Applicant's name: Mr Kim George Smith

1.3. Property details

Property: Lot 1678 on Deposited Plan 202987, Bow Bridge
Local Government Authority: Denmark, Shire Of
DER Region: South Coast
DPaW District: Frankland
Localities: Bow Bridge

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.544		Mechanical Removal	Gravel extraction

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 29 September 2016
Reasons for Decision: The clearing permit application is to clear 1.544 hectares of native vegetation, and was received on 10 June 2016. The original application to clear 3.32 hectares of native vegetation was amended to 1.544 hectares to align with the areas subject to an extractive industry licence (EIL) granted by the Shire of Denmark.

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 not likely to be at variance to any of the clearing Principles. The Delegated Officer considered that the implementation of suitable weed and dieback management measures was appropriate to address the impacts of the proposed clearing.

State and other relevant policies have been taken into consideration in this decision.

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
One Beard vegetation association and one Mattiske vegetation complex have been mapped within the application area. Beard vegetation association 3 is described as medium forest; jarrah-marri (Shepherd et al., 2001); and Mattiske vegetation complex Ky is described as an open forest of *Eucalyptus marginata* subsp. *marginata-Corymbia calophylla-Banksia grandis* on mild slopes of hills in perhumid zone and open forest to tall open forest of *Eucalyptus brevistylis* on slopes below outcrops in hyperhumid and perhumid zones (Mattiske and Havel, 1998). A site inspection conducted by officers from the Department of Environment Regulation (DER) on 29 June 2016 found that the vegetation within the application area was most representative of the mapped Mattiske vegetation complex (DER, 2016).	The application is to clear up to 1.544 hectares of native vegetation for the purpose of gravel extraction.	Completely degraded: No longer intact; completely/almost completely without native species (Keighery, 1994); To: Very Good; Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).	Vegetation condition was determined during a site inspection (DER, 2016). Approximately 1.174 hectares of the application area has been previously cleared, and contains regrowth vegetation in a degraded to completely degraded (Keighery, 1994) condition. Approximately 0.37 hectares is uncleared and in a good to very good (Keighery, 1994) condition.

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 1.544 hectare application area contains vegetation that is representative of Mattiske vegetation complex Ky. The vegetation is described as a tall open forest *Eucalyptus brevistylis/ Eucalyptus jacksonii* with *Eucalyptus marginata* subsp. *marginata* and *Corymbia calophylla* over scattered *Banksia grandis* over a midstorey dominated by *Taxandria* sp. (DER, 2016).

The application area occurs within a 40 hectare remnant of native vegetation. It contains approximately 1.174 hectares of vegetation in a degraded to completely degraded (Keighery, 1994) condition that has been previously cleared, and 0.37 hectares in good to very good (Keighery, 1994) condition (DER, 2016).

The local area (10 kilometre radius) contains approximately 65 per cent native vegetation, which includes vegetation within the adjacent Mount Frankland South National Park, Frankland State Forest, Mount Roe National Park and a timber reserve. Based on aerial imagery and observations during the site inspection, adjacent native vegetation within the applicant's property and within Mount Frankland South National Park is in very good to excellent (Keighery, 1994) or better condition and contains the same vegetation type as that within the application area (DER, 2016).

The application area and surrounds has a low level of weed invasion. Mechanical clearing has the potential to introduce weeds into an area, which can decrease the biodiversity value of an area as weeds out-compete native vegetation for available resources, contribute to land degradation and increase the frequency and intensity of fires (DEC, 2011). Potential impacts to biodiversity within and nearby the application area as a result of the proposed clearing may be minimised by the implementation of weed management practices.

According to available databases, two rare and 17 priority flora species have been recorded in the local area. Officer level advice from the Department of Parks and Wildlife (Parks and Wildlife) states that no records for rare or priority flora exist within the application area (Parks and Wildlife, 2016). Of the rare and priority flora recorded within the local area, one priority 2 species (*Andersonia redolens*) is known to occur in similar habitat to that within the application area (Western Australian Herbarium, 1998-). Given the availability of suitable habitat in good (Keighery, 1994) or better condition in the local area and the proportion of degraded to completely degraded (Keighery, 1994) vegetation within the application area, the application area is not likely to provide significant habitat for this flora species.

One priority ecological community (PEC) has been recorded within the local area (P1), being a southwest coastal grassland community. No threatened ecological communities (TECs) have been recorded within the local area. The vegetation within the application area is not representative of a PEC or TEC.

A total of 12 threatened fauna species and two priority fauna species have been recorded within the local area (Parks and Wildlife, 2007-). Of these, five fauna species listed as 'rare or likely to become extinct' under the *Wildlife Conservation Act 1950* may use habitat within the application area, being:

- Baudin's cockatoo (*Calyptorhynchus baudinii*),
- Forest red-tailed black cockatoo (*Calyptorhynchus banksii* subsp. *naso*),
- Southern brush-tailed phascogale (*Phascogale tapoatafa* subsp. *tapoatafa*),
- Chuditch (*Dasyurus geoffreyi*), and
- Tingle trapdoor spider (*Moggridgea tingle*).

The quenda (*Isoodon obesulus* subsp. *fusciventer*; priority 4) may also use habitat within the application area.

Given the availability of habitat in similar or better condition in the local area, it is considered that the aforementioned fauna species are unlikely to be dependent on habitat within the application area for survival, and the application area is unlikely to contain a high level of diversity on a local or regional scale.

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

Methodology

References:
DEC (2011)
DER (2016)
Keighery (1994)
Parks and Wildlife (2007-)
Parks and Wildlife (2016)
Western Australian Herbarium (1998-)

GIS Databases:
- Parks and Wildlife tenure
- SAC bio datasets (Accessed September 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 is not likely to be at variance to this Principle

Approximately 1.174 hectares of vegetation within the application area has been previously cleared and is in a degraded to completely degraded (Keighery, 1994) condition. Approximately 0.37 hectares is in good to excellent (Keighery, 1994) condition, and trees within this portion are of mixed age, with the majority not of a suitable size to bear hollows (DER, 2016).

The application area is located within a remnant of native vegetation approximately 40 hectares in size, which is adjacent to the Mount Frankland South National Park and connected to other smaller remnants of native vegetation. The proposed clearing of 1.544 hectares is not likely to impact the connectivity of fauna habitat on a local or landscape scale, or significantly impact the carrying capacity of the 40 hectare remnant.

A total of 12 threatened and two priority four fauna species have been recorded within the local area (10 kilometre radius) (Parks and Wildlife, 2007-). It is considered that the application area provides suitable habitat for the forest red-tailed black cockatoo, Baudin's cockatoo, chuditch, tingle trapdoor spider, southern brush-tailed phascogale and quenda. Suitable habitat for these species also occurs elsewhere within the 40 hectare remnant and within the adjacent Mount Frankland South National Park.

Evidence of foraging by black cockatoos on *Eucalyptus* species was observed within the application area during the site inspection. Officer level advice from Parks and Wildlife indicates that the foraging evidence observed is likely to be from Baudin's cockatoo, which may also use the area for roosting (Parks and Wildlife, 2016).

Given the low proportion of hollow- bearing trees within the application area, proximity to an existing gravel pit, and the availability of fauna habitat in similar or better condition in the local area, the application area is not likely to provide significant habitat for fauna.

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

Methodology

References:
DER (2016)
Keighery (1994)
Parks and Wildlife (2007-)
Parks and Wildlife (2016)

GIS Databases:
- Imagery
- Parks and Wildlife tenure
- Remnant vegetation

(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, two rare flora species have been recorded within 10 kilometres of the application area.

Based on the habitat type present, neither of the rare flora species are likely to occur within the application area.

Officer level advice from Parks and Wildlife advised that they have no records for any rare or priority flora within the application area (Parks and Wildlife, 2016).

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

Methodology

References:
Parks and Wildlife (2016)

GIS Databases:
- SAC bio datasets (Accessed September 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

There are no records for any threatened ecological communities (TECs) within the local area (10 kilometre radius).

The vegetation within the application area was representative of a tall forest with areas of open forest of *Eucalyptus brevistylis / Eucalyptus jacksonii* with *Eucalyptus marginata* subsp. *marginata* and *Corymbia calophylla* over scattered *Banksia grandis* over a midstorey dominated by *Taxandria* sp. (DER, 2016). This vegetation type does not represent a TEC.

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

Methodology

References:
DER (2016)

GIS Databases:
- SAC bio datasets (Accessed September 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 occurs within the Warren Interim Biogeographic Regionalisation of Australia (IBRA) bioregion, in which approximately 79 per cent of the pre-European vegetation remains (see table below) (Government of Western Australia, 2015). The application area is not considered to be located within an extensively cleared area.

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). No mapped vegetation association within the application area occurs at below the 30 per cent threshold.

Based on 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* - Warren	833,986	660,311	79	85
Shire* - Shire of Denmark	190,534	142,246	75	79
Beard Vegetation Association in Bioregion*				
3	250,263	195,369	78	87
Mattiske Vegetation Complex **				
Ky	15,013	13,565	90	82

Methodology

References:
Commonwealth of Australia (2001)
*Government of Western Australia (2015)
**Parks and Wildlife (2015)

(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 wetlands or watercourses within the application area (DER, 2016). The nearest watercourse or wetland is a minor, non-perennial watercourse located approximately 120 metres east of the application area. According to aerial imagery, the vegetation type growing along this watercourse is different to the vegetation type found within the application area.

The vegetation within the application area is not considered to be growing in association with a watercourse or wetland.

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

Methodology

References:
DER (2016)

GIS Databases:
- Aerial imagery
- 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 may be at variance to this Principle

The soil type within the application area is mapped as hard acidic and neutral yellow mottled soils, and hard acidic red soils (Northcote et al., 1960-68). The application area is surrounded by remnant vegetation, and is located approximately 120 metres from a minor, non-perennial watercourse.

The proposed clearing is not likely to cause land degradation in the form of salinity, waterlogging or eutrophication. While the soil type within the application area is not prone to wind or water erosion, the application area occurs on a steep slope, and some water erosion may occur following heavy rainfall if the end land use of gravel extraction is not implemented immediately following clearing activities.

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

Land degradation via soil erosion may be minimised by ensuring topsoil is appropriately stripped and stockpiled in a timely manner following clearing activities.

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

GIS Databases:
- Topographic contours, statewide

(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**
The application area is located 40 metres from the Mount Frankland South National Park. This national park is 4,320 hectares in size and is surrounded by Mount Frankland National Park, Frankland State Forest, Mount Roe National Park and freehold land with both native vegetation and areas cleared for agriculture.

The application area does not comprise a significant ecological linkage between the Mount Frankland South National Park and other remnants of native vegetation.

The application area is separated from the Mount Frankland South National Park by a firebreak and a 40 metre buffer of native vegetation (DER, 2016).

Given the distance and the presence of native vegetation between the national park and the application area, the proposed clearing is not likely to impact the environmental values of the Mount Frankland South National Park.

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

Methodology References:
DEC (2011)
DER (2016)

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**
The application area is located on sloping terrain approximately 120 metres upslope of a minor, non-perennial watercourse. The watercourse is buffered from the application area by native vegetation, which will mitigate any increase in runoff and sediment towards the watercourse during periods of heavy rainfall as a result of the proposed clearing.

Groundwater salinity within the application area is mapped as 500-1000 total dissolved solids milligrams per litre, which is considered to be a marginal level of salinity. While the application area contains deep-rooted vegetation, the application area is surrounded by large areas of similar native vegetation which is likely to mitigate impacts to groundwater quality.

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

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

(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**
The application area is located approximately 120 metres upslope of a minor, non-perennial watercourse. The soil type within the application area is mapped as hard acidic and neutral yellow mottled soils, and hard acidic red soils (Northcote et al., 1960-68).

The application area occurs on sloping terrain, and the proposed clearing of 1.544 hectares of native vegetation may increase the amount of runoff into the nearby watercourse prior to the commencement of gravel extraction. However, the expected increase in runoff is not likely to be significant, and is not likely to cause an increase in the incidence or intensity of flooding in this area.

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:
- Hydrography, linear
- Topographic Contours, Statewide

Planning instruments and other relevant matters.

Comments The applicant proposes to clear up to 1.544 hectares of native vegetation within Lot 1678 on Deposited Plan 202987, Bow Bridge, for the purpose of gravel extraction.

An investigation into alleged unauthorised clearing, noise pollution and dust pollution was conducted within the application area in 2015 (ICMS 38704). This investigation has been closed.

An extractive industry licence (EIL) was granted by the Shire of Denmark within the application area on 24 February 2016, and expires on 24 February 2021 (Shire of Denmark, 2016).

The original application applied to clear up to 3.32 hectares of native vegetation. A Delegated Officer wrote to the applicant on 8 September 2016, noting that the EIL did not cover the entire application area. An amended EIL to include the additional areas applied to clear was requested by 8 December 2016 (Ref 1161918).

On 17 September 2016, the applicant wrote to DER requesting to amend the application area to align with the existing EIL (Ref 1167462).

The clearing permit application was advertised in *The West Australian* on 4 July 2016 for a 21 day submission period. No submissions were received.

There are no registered Aboriginal Sites of Significance mapped within the area applied to clear.

Methodology References:
Shire of Denmark (2016)

GIS Database:
- Aboriginal Sites Register System

4. References

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.

Department of Environment and Conservation (DEC) (2011) Invasive Plant Prioritisation, Department of Environment and Conversation, Perth.

Department of Environment Regulation (DER) (2016) CPS 7110/1 Site inspection report. Department of Environment Regulation. DER REF: A1159026.

Department of Parks and Wildlife (Parks and Wildlife) (2007-) Naturemap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife, Perth. http://naturemap.dpaw.wa.gov.au/default.aspx (Accessed August 2016).

Department of Parks and Wildlife (Parks and Wildlife) (2016) Officer level advice received from the Department of Parks and Wildlife on 16 August 2016. DER REF: A1156508.

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.

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.

Shire of Denmark (2016) Advice received from the Shire of Denmark on 22 July 2016. DER REF: A1136642.

Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Parks and Wildlife. http://florabase.dpaw.wa.gov.au/ (Accessed September 2016).