



## CLEARING PERMIT

*Granted under section 51E of the Environmental Protection Act 1986*

### PERMIT DETAILS

Area Permit Number: 6959/1  
File Number: DER 2014/000283-1  
Duration of Permit: From 31 December 2016 to 31 December 2018

### PERMIT HOLDERS

Lukas Vodesil  
Jodie Ann Miller

### LAND ON WHICH CLEARING IS TO BE DONE

Lot 3 on Deposited Plan 69174, Meerup.

### AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 6.82 hectares of native vegetation within the area cross hatched yellow on the attached Plan 6959/1.

### CONDITIONS

#### 1. Tree retention

The Permit Holder shall not clear trees with a diameter at breast height of greater than 15 centimetres within the area cross hatched yellow on attached Plan 6959/1.

#### 2. Dieback and weed control

When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds* and *dieback*:

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

### DEFINITIONS

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

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

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

*mulch* means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

*weed/s* means any plant -

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

A handwritten signature in blue ink, appearing to read "Kelly Faulkner".

Kelly Faulkner  
EXECUTIVE DIRECTOR  
LICENSING AND APPROVALS






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

1 December 2016

# Plan 6959/1



## Legend

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



1:3,609

(Approximate when reproduced at A4)

GDA 94 (Lat/Long)  
Geocentric Datum of Australia 1994

*[Signature]*  
Date *1/12/16*  
Kelly Faulkner

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



GOVERNMENT OF  
WESTERN AUSTRALIA  
WA Crown Copyright 2016



## 1. Application details

### 1.1. Permit application details

Permit application No.: 6959/1  
Permit type: Area Permit

### 1.2. Applicant details

Applicant's name: Miss Jodie Ann Miller  
Mr Lukas Vodesil

### 1.3. Property details

Property: LOT 3 ON PLAN 69174, MEERUP  
LOT 2 ON PLAN 69174, MEERUP  
Local Government Authority: MANJIMUP, SHIRE OF  
DER Region: South Coast  
DPaW District: DONNELLY  
Localities: MEERUP

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
9.44	0	Mechanical Removal	Grazing & pasture

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 1 December 2016

Reasons for Decision: The applicant originally applied to clear 12.61 hectares on 18 February 2016, and reduced the application area to 9.44 hectares to avoid and minimise environmental impacts identified in a preliminary assessment dated 14 October 2016.

The clearing application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the *Environmental Protection Act 1986* (EP Act).

The Delegated Officer determined that the amended area will impact on approximately 1.4 hectares of a paluslope wetland and may impact on the wetlands hydrology and water quality.

Pursuant to section 51E(7)(a) of the EP Act it is open to the CEO to grant a permit for all or some of the clearing applied for. Taking into account the findings of this assessment, additional information provided by the applicant and advice provided by the Department of Parks and Wildlife (Parks and Wildlife) and Commissioner of Soil and Land Conservation (CSLC), the Delegated Officer has determined to grant a clearing permit for 6.82 hectares of the 9.44 hectares applied to clear. The 6.82 hectare area retains a 50 metre buffer to the majority of the mapped paluslope wetland to reduce impacts to wetland vegetation and reduce the potential for eutrophication, waterlogging and sedimentation.

## 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
Mattiske vegetation S1 complex consists of tall open forest of <i>Eucalyptus diversicolor</i> and <i>Corymbia calophylla</i> on slopes with some <i>Eucalyptus patens</i> and <i>Eucalyptus megacarpa</i> on valley floors (Mattiske and Havel, 1998).	The applicant has applied to clear 9.44 hectares of native vegetation within Lot 3 on Deposited Plan 69174, Meerup, for the purpose of stock grazing.	Very Good; Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).	The condition and description of the vegetation under application was determined via a site inspection undertaken by Department of Environment Regulation (DER) officers.
Mattiske vegetation S4 complex consists of low woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> and <i>Nuytsia floribunda</i> with some <i>Melaleuca preissiana</i> and closed heath of Myrtaceae spp. on broad drainage lines in		To  Completely Degraded: No longer intact; completely /almost completely without native species (Keighery, 1994)	The vegetation under application contains dense <i>Kunzea</i> thickets over <i>Pteridium aquilinum</i> in the highly disturbed areas, with <i>Melaleuca</i> woodland amongst a higher density understorey including sedges towards the north western portion of the application area.

hyperhumid and perhumid zones (Mattiske and Havel, 1998).

Mattiske vegetation COy1 complex consists of tall open forest to woodland of *Eucalyptus marginata* subsp. *marginata*, *Corymbia calophylla*, *Banksia grandis* and *Allocasuarina fraseriana* on low hills and with *Allocasuarina decussata* on slopes in perhumid and humid zones (Mattiske and Havel, 1998).

Beard vegetation association 23 is described as low woodland; jarrah-banksia (Shepherd et al., 2001).

Beard vegetation association 51 is described as sedgeland; reed swamps, occasionally with heath (Shepherd et al., 2001).

Larger overstorey species including *Eucalyptus marginata* and scattered *Nuytsia floribunda* occur at greater density within the centre portion of the application area (DER, 2016).

### 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 may be at variance to this Principle

The application is to clear 9.44 hectares of native vegetation within Lot 3 on Deposited Plan 69174 (the property), Meerup, for the purpose of stock grazing. The applicant reduced the application area to avoid and minimise environmental impacts from 12.61 hectares to 9.44 hectares. The applicant amended the purpose of the clearing to exclude dam construction. The land use is now parkland clearing for grazing. Large trees (diameter of greater than 15 centimetres) will not be cleared.

The eastern portion of the application area (approximately three hectares) is largely in a degraded to completely degraded (Keighery, 1994) condition and has been heavily impacted by historical clearing for a house, dam, and tracks (DER, 2016). The southern portion of the application area (approximately 1.2 hectares) is also largely in a degraded to completely degraded (Keighery, 1994) condition (DER, 2016). The remainder of the application area is largely in a good to very good (Keighery, 1994) condition (DER, 2016).

The vegetation type and structure varies throughout the application area. The application area contains dense *Kunzea* thickets over *Pteridium aquilinum* in areas of greatest disturbance, with *Melaleuca* woodland amongst a higher density understorey including sedges towards the north western portion of the application area (DER, 2016). Larger overstorey species including *Eucalyptus marginata* and scattered *Nuytsia floribunda* occur at greater density within the centre portion of the application area (DER, 2016).

A portion of the application area is located within an area mapped as a paluslope wetland (seasonally waterlogged slope) of the Walpole River suite. Approximately 1.4 hectares of the application area is mapped as a paluslope wetland of which 0.7 hectares is considered to be in a good to very good (Keighery, 1994) condition (DER, 2016). Parks and Wildlife advised that "wetlands within the Walpole River suite have been identified as important for supporting endemic and new invertebrate species" (Parks and Wildlife, 2016a). The values of wetlands within the Walpole River suite include wetland condition, representativeness, fauna and linkages (Water and Rivers Commission, 1997).

Parks and Wildlife advised that "there is the potential for threatened and priority flora species to occur within the vegetated areas of the wetland..." (Parks and Wildlife, 2016a). With respect to flora habitat, Parks and Wildlife separated the application area into northern and southern sections based on soil type (Broad Swamps North and Collis 1 respectively). With regards to the northern section of the application area, Parks and Wildlife advised that "2 species of known threatened flora; [name withheld] DRF and *Meeboldina crassipes* [now *Leptocarpus crassipes*] P3 are found in this habitat in the Northcliffe area. There are records of both species within 5km from the application" (Parks and Wildlife, 2016a).

With regard to the southern section of the application area, Parks and Wildlife advised that "4 species of known threatened flora; [name withheld, same as above] DRF, *Stylidium leeuwinense* P4, *Lomandra ordii* P4 and *Meeboldina crassipes* [now *Leptocarpus crassipes*] P3 are found in this habitat in the Northcliffe area. There are records of all these species within 5km from the application" (Parks and Wildlife, 2016a).

The DRF species is an annual semi-aquatic herb that flowers from October through to December (Threatened Species Scientific Committee, 2008).

The species is found in open grey sandy depressions in winter-wet flats, where it grows in very low heath and twine rushes. It is also likely to inhabit shallow *Melaleuca* depressions (Threatened Species Scientific Committee, 2008).

This species consists of approximately 51 populations and over 40,000 plants and is considered to be locally abundant.

Parks and Wildlife advised that "given that the species is well represented on conservation estate and that if present would likely occur in the highly disturbed areas, impacts to this species from the proposed clearing are unlikely to be significant with respect to the conservation of the species. As such a targeted survey for [name withheld] (T) is not recommended" (Parks and Wildlife, 2016b).

Declared rare flora are not to be impacted or taken unless a 'Permit to take Declared Rare flora' (Permit to Take) is obtained from Parks and Wildlife, pursuant to section 23F of the *Wildlife Conservation Act 1950* (WC Act).

*Leptocarpus crassipes* (formerly *Meeboldina crassipes*) (P3) (18 records, five in the local area (10 kilometre radius surrounding the application area)), *Lomandra ordii* (P4) (58 records, 11 in the local area) and *Styloidium leeuwinense* (P4) (57 records, seven in the local area) have moderate distributions with records across two Interim Biogeographic Regionalisation of Australia (IBRA) bioregions. Given the distribution and number of records, the proposed clearing is not likely to impact on the conservation status of these priority flora species.

According to available datasets, no threatened or priority ecological communities (TECs or PECs) have been recorded within the local area. A site inspection conducted by DER officers did not identify any vegetation communities consistent with a TEC or PEC within the application area (DER, 2016).

A site inspection conducted by DER officers identified that the application area contains suitable habitat for the quokka (*Setonix brachyurus*; Vulnerable under the WC Act), quenda (*Isoodon obesulus* subsp. *fusciventer*, P4) and short-nosed snake (*Elapognathus minor*, P2) (DER, 2016).

It was identified that the application area also contains suitable forging habitat, largely in the form of scattered *Eucalyptus marginata* (DER, 2016), for Carnaby's cockatoo (*Calyptorhynchus latirostris*), Baudin's cockatoo (*Calyptorhynchus baudinii*) and forest red-tailed black cockatoo (*Calyptorhynchus banksii* subsp. *naso*) (collectively known as black cockatoos). Black cockatoos are listed as threatened under the WC Act.

The local area retains approximately 80 per cent vegetative cover. Based on the availability of habitat in similar or better condition within the local area, including within the nearby (800 metres south west) Boorara-Gardner National Park which comprises approximately 2,500 hectares, the application area is not likely to constitute significant habitat for the abovementioned fauna.

The application area forms part of a vegetative remnant that is recognised as an ecological linkage within the South West Regional Ecological Linkages technical report.

The proposed clearing will increase the risk of weeds and dieback spreading into adjacent remnant vegetation, including into the mapped paluslope wetland. Weed and dieback management measures will assist in mitigating this risk.

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

Taking into account the findings of this assessment, information provided by the applicant and advice from Parks and Wildlife and the CSLC, it has been determined to grant a clearing permit for 6.82 hectares of the 9.44 hectares applied to clear.

The 6.82 hectare area reduces the impact on the mapped paluslope wetland to 0.662 hectares, located within the south east (0.62 hectares) and north east (0.042 hectares) portions. These areas are in a degraded to completely degraded (Keighery, 1994) condition (DER, 2016). It is assessed that a 50 metre buffer is not required for these areas. With the exception of degraded areas, the 6.82 hectare area retains a 50 metre buffer to the majority of the mapped paluslope wetland. The reduction in clearing area, retention of a wetland buffer and the requirement to retain trees with a width of greater than 15 centimetres will reduce impacts to wetland vegetation and reduce the potential for eutrophication, waterlogging and sedimentation.

#### Methodology

##### References:

DER (2016)  
Keighery (1994)  
Molloy et al. (2009)  
Parks and Wildlife (2016a)  
Parks and Wildlife (2016b)  
Threatened Species Scientific Committee (2008)  
Water and Rivers Commission (1997)

##### GIS Databases:

Parks and Wildlife Tenure  
SAC Bio Datasets (Accessed November 2016)  
SWREL-AL  
Wetlands, Augusta to Walpole

**(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**

There are 17 fauna species of conservation significance recorded within the local area, and a site inspection conducted by DER officers identified that based on the habitat preferences of these species, the application area may contain suitable habitat for quokka (*Setonix brachyurus*; vulnerable under the WC Act), quenda (*Isoodon obesulus* subsp. *fusciventer*, P4), short-nosed snake (*Elapognathus minor*, P2), Carnaby's cockatoo (*Calyptorhynchus latirostris*; threatened under the WC Act), Baudin's cockatoo (*Calyptorhynchus baudinii*; threatened under the WC Act) and forest red-tailed black cockatoo (*Calyptorhynchus banksii* subsp. *naso*; threatened under the WC Act) (DER, 2016; Parks and Wildlife, 2007-).

The quokka is known to occur from a small number of isolated mainland sites (Department of the Environment (DotE), 2015) and has been recorded three times within the local area, all during 1999. The application area contains dense understorey vegetation (DER, 2016) and quokka and other ground dwelling priority flora species, including the quenda and short-nosed snake, potentially utilise this habitat within the application area. However, based on the availability of extensive habitat within the nearby (800 metres away) Boorara-Gardner National Park, and that the properties neighbouring the application area are extensively vegetated, the application area is not likely to comprise significant habitat for these species.

A site inspection identified that the application area contains suitable foraging habitat for black cockatoos, as these species forage on the seeds, nuts and flowers of a large variety of plants including proteaceous species (*Banksia*, *Hakea*, *Grevillea*), as well as *Allocasuarina* and *Eucalyptus* species (Valentine and Stock, 2008). Foraging habitat within the application area is largely restricted to scattered *Eucalyptus marginata* (DER, 2016), and foraging habitat of greater quality and density is likely to occur within the Boorara-Gardner National Park and other surrounding vegetative remnants within the local area. Therefore, the application area is not likely to provide significant foraging habitat for 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, suitable DBH is 500 millimetres (Commonwealth of Australia, 2012). There were no trees with significant hollows identified within the application area (DER, 2016), therefore the proposed clearing is not likely to impact on black cockatoo breeding habitat.

The application area forms part of a vegetative remnant that is recognised as an ecological linkage within the South West Regional Ecological Linkages technical report. These linkages are important for the dispersal of native fauna as well as consisting of either breeding or foraging habitat, or both, for local fauna (Molloy et al., 2009). The application area is located within the southern portion of the property, which has undergone the greatest level of disturbance, and approximately 30 hectares of remnant vegetation in good or better condition occurs within the remainder of the property (DER, 2016). Approximately 50 hectares of remnant vegetation also occurs within the neighbouring lots west and north, and the proposed clearing is not likely to sever or significantly impact on the value, or functioning of this linkage.

The applicant has advised that trees with a trunk diameter of greater than 15 centimetres will be retained, and the requirement to retain large trees will help to minimise impacts to fauna habitat.

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

Methodology

References:  
Commonwealth of Australia (2012)  
DotE (2015)  
DER (2016)  
Molloy et al. (2009)  
Parks and Wildlife (2007-)  
Valentine and Stock (2008)

GIS Databases:  
Parks and Wildlife Tenure  
SWREL-AL

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

Comments

**Proposed clearing may be at variance to this Principle**

One rare flora species has been recorded within the local area. This species is an annual semi-aquatic herb that flowers from October through to December (Threatened Species Scientific Committee, 2008). The species is found in open grey sandy depressions in winter-wet flats, where it grows in very low heath and twine rushes. It is also likely to inhabit shallow *Melaleuca* depressions (Threatened Species Scientific Committee, 2008).

A small portion of the application area (approximately 1.4 hectares) is located within a mapped paluslope wetland (seasonally waterlogged slope) with soils comprising a combination of pale deep sands, wet and semi wet soils and grey deep sandy duplexes (CSLC, 2016a). A site inspection identified *Melaleuca* sp. throughout (DER, 2016) and it is considered that the application area provides suitable habitat for this rare flora species.

Parks and Wildlife advised that "this species consists of approximately 51 populations and over 40,000 plants. It is often considered to be locally abundant where it occurs. Some populations appear to have been recorded in disturbed areas, including roadside drainage and recently burnt areas" (Parks and Wildlife, 2016b). Parks and Wildlife further advised that "given that the species is well represented on conservation estate and that if present would likely occur in the highly disturbed areas, impacts to this species from the proposed clearing are unlikely to be significant with respect to the conservation of the species. As such targeted survey for [name withheld] (T) is not recommended" (Parks and Wildlife, 2016b).

Declared rare flora are not to be impacted or taken unless a Permit to Take is obtained from Parks and Wildlife, pursuant to section 23F of the WC Act.

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

**Methodology**   References:  
CSLC (2016a)  
DER (2016)  
Parks and Wildlife (2016b)  
Threatened Species Scientific Committee (2008)

GIS Databases:  
SAC Bio Datasets (Accessed November 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**  
According to available datasets, there are no threatened ecological communities (TECs) mapped within the local area. A site inspection conducted by DER officers did not identify any vegetation communities likely to represent a TEC within the application area (DER, 2016).

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 November 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 is located within the Warren IBRA bioregion and Shire of Manjimup which retain approximately 79 and 84 per cent of their pre-European vegetation extents respectively (Government of Western Australia, 2015). The local area retains approximately 80 per cent native vegetation cover.

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 retains less than the 30 per cent vegetation threshold.

The application area forms part of a vegetative remnant that is recognised as an ecological linkage within the South West Regional Ecological Linkages technical report. These linkages are important for the dispersal of native fauna as well as consisting of either breeding or foraging habitat, or both, for local fauna (Molloy et al., 2009).

The application area is located within the southern portion of the property, which has undergone the greatest level of disturbance, and approximately 28 hectares of remnant vegetation in good or better condition occurs within the remainder of the property (DER, 2016). Approximately 50 hectares of remnant vegetation also occurs within the neighbouring lots west and north, and the proposed clearing is not likely to sever or significantly impact on the value or functioning of this linkage.

The vegetation under application is considered to be a significant remnant as it contains vegetation in very good (Keighery, 1994) condition (DER, 2016) that forms part of a paluslope wetland, however, the proposed clearing is not considered to be within an area that has been extensively cleared.

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 (%)
<b>IBRA Bioregion*</b>				
Warren	833,985	660,315	79	85
<b>Shire*</b>				
Shire of Manjimup	697,368	586,852	84	94
<b>Beard Vegetation Association in Bioregion*</b>				
51	35,867	24,063	67	86
23	37,736	27,217	72	75
<b>Mattiske Vegetation Complex **</b>				
COy1	23,057.01	19,188	83	74
S1	25,607	21,842	85	76
S4	1,569	894	57	24

**Methodology** References:  
Commonwealth of Australia (2001)  
DER (2016)  
Government of Western Australia (2015)\*  
Keighery (1994)  
Parks and Wildlife (2015)\*\*

GIS Databases:  
NLWRA, Current Extent of Native 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**

Approximately 1.4 hectares of the application area is mapped as a paluslope wetland (seasonally waterlogged slope) of the Walpole River suite of which 0.7 hectares is considered to be in a good to very good (Keighery, 1994) condition (DER, 2016). The paluslope wetland is part of an extensive wetland system that extends to the west, north, east and to a lesser extent, the south of the property, covering an area of approximately 51 hectares. A minor watercourse (creekline) is mapped approximately 25 metres south east of the application area at its closest point.

Parks and Wildlife advised that "paluslope wetlands are known to form part of linked geomorphological and hydrological systems between uplands (Precambrian) and flats (Tertiary), that is between valley slopes, channels, palusplain and floodplain" (Parks and Wildlife, 2016a). Parks and Wildlife advised that "wetlands within the Walpole River suite have been identified as important for supporting endemic and new invertebrate species" (Parks and Wildlife, 2016a).

The application area contains species that are commonly associated with wetland environments, including *Melaleuca* sp., *Kunzea* thickets and sedges (DER, 2016). These species are growing within, and in association with the mapped paluslope wetland.

Vegetated buffers are key strategic elements among a series of protection barrier options that reduce the risk of sediment impact on water quality (WAPC, 2005). The Environmental Protection Authority's Guidance Statement 33 recommends a minimum 50 metre buffer be maintained for the protection of wetlands (EPA, 2008).

The applicant reduced the application area to avoid and minimise environmental impacts from 12.61 hectares to 9.44 hectares. This amendment reduces the impact on the paluslope wetland from 4.5 hectares to 1.4 hectares.

The applicant amended the purpose of the clearing to exclude dam construction. The land use is now parkland clearing for grazing. Large trees will not be cleared.

Further advice was obtained from Parks and Wildlife. Parks and Wildlife advised that "while the area of clearing is less than previously proposed, wetland vegetation within a paluslope wetland will still be lost and it appears from the wetland mapping available that the recommended 50 m minimum vegetated buffer between the proposed clearing and the affected wetland has not been provided" (Parks and Wildlife, 2016c).

Parks and Wildlife advised that "in summary, the direct and potential impacts from the proposed clearing and subsequent grazing include:

- Direct loss of approximately 1 ha of paluslope wetland vegetation
- Degradation of wetland vegetation adjacent to the application area



- Loss of habitat for flora and fauna
- Introduction of weeds and stock into the wetland area
- Erosion and sedimentation
- Modification of water quality (eutrophication)".

(Parks and Wildlife, 2016c)

Parks and Wildlife advised that "construction of the dam will not occur under the revised application, however, the clearing in itself may cause some alteration of surface water flow patterns in a sloping landscape. The proposed clearing will result in less potential impacts than the previous application area, however, the proposal still has the potential to impact an uncommon type of wetland that is largely intact and retains conservation values" (Parks and Wildlife, 2016a).

Parks and Wildlife conclude that "[the] retention of a 50 metre buffer between the extent of clearing and the wetland boundary (as measured in the field) would reduce the extent of potential impacts on wetland values" (Parks and Wildlife, 2016c).

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

Taking into account the findings of this assessment, information provided by the applicant and advice from Parks and Wildlife and the CSLC, it has been determined to grant a clearing permit for 6.82 hectares of the 9.44 hectares applied to clear.

The 6.82 hectare area reduces the impact on the mapped paluslope wetland to 0.662 hectares, located within the south east (0.62 hectares) and north east (0.042 hectares) portions. These areas are in a degraded to completely degraded (Keighery, 1994) condition (DER, 2016). It is assessed that a 50 metre buffer is not required for these areas. With the exception of degraded areas, the 6.82 hectare area retains a 50 metre buffer to the majority of the mapped paluslope wetland. The reduction in clearing area, retention of a wetland buffer and the requirement to retain trees with a width of greater than 15 centimetres will reduce impacts to wetland vegetation and reduce the potential for eutrophication, waterlogging and sedimentation.

#### Methodology

##### References:

DER (2016)  
EPA (2008)  
Keighery (1994)  
Parks and Wildlife (2016a)  
Parks and Wildlife (2016c)  
WAPC (2005)

##### GIS Databases:

Wetlands, Augusta to Walpole  
Hydrography, linear  
Hydrography, hierarchy

### **(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**

Landform and soil mapping of the south coast and hinterland indicates that the application area largely comprises the Collis yellow duplex phase soil map unit, which is described as low hills less than 20 metres high on deeply weathered mantle over granitic rocks in the southern forests between Northcliffe and Deep River, with soils comprising duplex sandy gravels, yellow-brown deep sandy duplexes, loamy gravels and stony soils (CSLC, 2016a).

A land degradation assessment undertaken by the Department of Agriculture and Food Western Australia (DAFWA) identified that the mapped soil unit is not a true representation of the soil type found within the application area (CSLC, 2016a). The application area is located within a transitional zone more closely related to the Minor valleys S4 Subsystem map unit, which is described as shallow broad swampy drainage depressions on sandy deposits over weathered mantle over granite in the Southern Forests to the south and west of Northcliffe, with soils comprising pale deep sands, wet soils, semi-wet soils and grey deep sandy duplexes (CSLC, 2016a).

Noting the soil type present within the application area, the risk of wind and water erosion as a result of the proposed clearing is low (CSLC, 2016a).

The Minor valleys S4 Subsystem phase mapping unit has a high to very high risk of waterlogging, and initial advice from the CSLC indicated that the proposed clearing would further exacerbate the risk of waterlogging. The CSLC concluded that the risk of waterlogging causing land degradation as a result of clearing was high to extreme, and the proposed clearing was at variance to this Principle (CSLC, 2016a).

The applicant reduced the application area to avoid and minimise environmental impacts from 12.61 hectares to 9.44 hectares. The applicant amended the purpose of clearing to exclude dam construction. The intended land use is parkland clearing for grazing. Large trees will not be cleared.

Advice was obtained from the CSLC. The CSLC advised that "the north east section of the application area is low lying and prone to seasonal waterlogging. While such areas have potential to provide useful grazing over summer, there is some risk of an incremental increase in land degradation in the form of eutrophication occurring under the proposed grazing..." (CSLC, 2016b).

The CSLC concluded that "the amended clearing may cause appreciable land degradation in the form of an incremental increase in nutrients exported from the property and may be at variance to Principle (g)" (CSLC, 2016b).

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

Taking into account the findings of this assessment, information provided by the applicant and advice from Parks and Wildlife and the CSLC, it has been determined to grant a clearing permit for 6.82 hectares of the 9.44 hectares applied to clear.

The 6.82 hectare area reduces the impact on the mapped paluslope wetland to 0.662 hectares, located within the south east (0.62 hectares) and north east (0.042 hectares) portions. These areas are in a degraded to completely degraded (Keighery, 1994) condition (DER, 2016). It is assessed that a 50 metre buffer is not required for these areas. With the exception of degraded areas, the 6.82 hectare area retains a 50 metre buffer to the majority of the mapped paluslope wetland. The reduction in clearing area, retention of a wetland buffer and the requirement to retain trees with a width of greater than 15 centimetres will reduce impacts to wetland vegetation and reduce the potential for eutrophication, waterlogging and sedimentation.

**Methodology** References:  
CSLC (2016a)  
CSLC (2016b)  
DER (2016)  
Keighery (1994)

**(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 closest conservation area is Boorara-Gardner National Park, located approximately 800 metres south west of the application area.

The application area forms part of a vegetative remnant that is recognised as an ecological linkage within the South West Regional Ecological Linkages technical report. These linkages are important for the dispersal of native fauna as well as consisting of either breeding or foraging habitat, or both, for local fauna (Molloy et al., 2009). However, given that approximately 30 hectares of remnant vegetation in good or better condition occurs within the remainder of the property (DER, 2016) and that approximately 50 hectares of remnant vegetation occurs within the neighbouring lots west and north, the proposed clearing is not likely to fragment or significantly impact on the value or functioning of this linkage.

Given the large vegetative buffer that exists between the application area and the National Park, and the presence of extensively vegetated surrounding areas, the proposed clearing is not likely to impact on the conservation values of the Boorara-Gardner National Park.

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

**Methodology** References:  
DER (2016)  
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 at variance to this Principle**

Approximately 1.4 hectares of the application area is mapped as a paluslope wetland (seasonally waterlogged slope) of the Walpole River suite of which 0.7 hectares is considered to be in a good to very good (Keighery, 1994) condition (DER, 2016). The paluslope wetland is part of an extensive wetland system that extends to the west, north, east and to a lesser extent, the south of the property, covering an area of approximately 51 hectares. A minor watercourse (creekline) is mapped approximately 25 metres south east of the application area at its closest point.

The topography of the paluslope wetland system is highest in the west and the elevation decreases to the east.

The proposed clearing of native vegetation in a very good (Keighery, 1994) condition within the north west corner of the application area (DER, 2016) will increase sediment run off into the wetland east, which would cause deterioration in the quality of surface water that may persist in the area post rainfall. The risk of sedimentation would be greater during winter months and immediately post clearing, as areas that are left bare are susceptible to run off.

The applicant has advised that the application area will be sown with pasture post clearing.

Vegetated buffers are key strategic elements among a series of protection barrier options that reduce the risk of sediment impact on water quality (WAPC, 2005). The Environmental Protection Authority's Guidance Statement 33 recommends a minimum 50 metre buffer be maintained for the protection of wetlands (EPA, 2008).

The applicant reduced the application area to avoid and minimise environmental impacts from 12.61 hectares to 9.44 hectares, which reduced the impact on the paluslope wetland from 4.5 hectares to 1.4 hectares. The applicant amended the purpose of the clearing to exclude dam construction. Parkland clearing for grazing is the intended land use and large trees will not be cleared.

Advice was obtained from Parks and Wildlife in regard to the amended area. Parks and Wildlife advised that "while the area of clearing is less than previously proposed, wetland vegetation within a paluslope wetland will still be lost and it appears from the wetland mapping available that the recommended 50 m minimum vegetated buffer between the proposed clearing and the affected wetland has not been provided" (Parks and Wildlife, 2016c).

Parks and Wildlife advised that "in summary, the direct and potential impacts from the proposed clearing and subsequent grazing include:

- Direct loss of approximately 1 ha of paluslope wetland vegetation
- Degradation of wetland vegetation adjacent to the application area
- Loss of habitat for flora and fauna
- Introduction of weeds and stock into the wetland area
- Erosion and sedimentation
- Modification of water quality (eutrophication)".

(Parks and Wildlife, 2016c)

The amended area has been assessed and found that the proposed clearing will impact on surface water quality through sedimentation.

Groundwater salinity mapped within the application area ranges from 500 to 1000 milligrams per litre (measured as Total Dissolved Solids), which is marginal. A land degradation assessment of the application area undertaken by DAFWA identified that the proposed clearing is not likely to result in changes to salinity levels (CSLC, 2016a).

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

Taking into account the findings of this assessment, information provided by the applicant and advice from Parks and Wildlife and the CSLC, it has been determined to grant a clearing permit for 6.82 hectares of the 9.44 hectares applied to clear.

The 6.82 hectare area reduces the impact on the mapped paluslope wetland to 0.662 hectares, located within the south east (0.62 hectares) and north east (0.042 hectares) portions. These areas are in a degraded to completely degraded (Keighery, 1994) condition (DER, 2016). It is assessed that a 50 metre buffer is not required for these areas. With the exception of degraded areas, the 6.82 hectare area retains a 50 metre buffer to the majority of the mapped paluslope wetland. The reduction in clearing area, retention of a wetland buffer and the requirement to retain trees with a width of greater than 15 centimetres will reduce impacts to wetland vegetation and reduce the potential for eutrophication, waterlogging and sedimentation.

#### Methodology

#### References:

CSLC (2016a)  
DER (2016)  
EPA (2008)  
Keighery (1994)  
Parks and Wildlife (2016c)  
WAPC (2005)

#### GIS Databases:

Wetlands, Augusta to Walpole  
Hydrography, 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 may be at variance to this Principle**

The soil type identified within the application area has a high to very high risk of waterlogging, and a land degradation assessment identified that the proposed clearing will further exacerbate this risk (CSLC, 2016a).

The land degradation assessment identified that the risk of flooding causing land degradation as a result of the proposed clearing is low (CSLC, 2016a). The proposed clearing of low-lying areas within the application area may result in an increase in temporary localised flooding immediately post clearing following winter rainfall.

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

Taking into account the findings of this assessment, information provided by the applicant and advice provided by Parks and Wildlife and the CSLC, it has been determined to grant a clearing permit for 6.82 hectares of the 9.44 hectares applied to clear.

The 6.82 hectare area reduces the impact on the mapped paluslope wetland to 0.662 hectares, located within the south east (0.62 hectares) and north east (0.042 hectares) portions. These areas are in a degraded to completely degraded (Keighery, 1994) condition (DER, 2016). It is assessed that a 50 metre buffer is not required for these areas. With the exception of degraded areas, the 6.82 hectare area retains a 50 metre buffer to the majority of the mapped paluslope wetland. The reduction in clearing area, retention of a wetland buffer and the requirement to retain trees with a width of greater than 15 centimetres will reduce impacts to wetland vegetation and reduce the potential for eutrophication, waterlogging and sedimentation.

**Methodology**      References:  
                         CSLC (2016a)  
                         DER (2016)  
                         Keighery (1994)

## **Planning instruments and other relevant matters.**

**Comments**      The original application was for the proposed clearing of 12.61 hectares of native vegetation. On 15 July 2016 the applicant was advised that the preliminary assessment of the proposed clearing identified environmental impacts to a paluslope wetland and the potential for appreciable land degradation (via waterlogging and eutrophication).

The applicant reduced the application area from 12.61 to 9.44 hectares, changed the purpose of clearing to exclude dam construction and advised that trees with a diameter of greater than 15 centimetres would be retained.

Further advice was obtained from Parks and Wildlife on the amended area. Parks and Wildlife advised that "while the area of clearing is less than previously proposed, wetland vegetation within a paluslope wetland will still be lost and it appears from the wetland mapping available that the recommended 50 m minimum vegetated buffer between the proposed clearing and the affected wetland has not been provided" (Parks and Wildlife, 2016c).

Parks and Wildlife advised that "in summary, the direct and potential impacts from the proposed clearing and subsequent grazing include:

- Direct loss of approximately 1 ha of paluslope wetland vegetation
  - Degradation of wetland vegetation adjacent to the application area
  - Loss of habitat for flora and fauna
  - Introduction of weeds and stock into the wetland area
  - Erosion and sedimentation
  - Modification of water quality (eutrophication)".
- (Parks and Wildlife, 2016c)

Further advice was obtained from the CSLC. The CSLC advised that "the north east section of the application area is low lying and prone to seasonal waterlogging. While such areas have potential to provide useful grazing over summer, there is some risk of an incremental increase in land degradation in the form of eutrophication occurring under the proposed grazing..." (CSLC, 2016b).

The CSLC concluded that "the amended clearing may cause appreciable land degradation in the form of an incremental increase in nutrients exported from the property and may be at variance to Principle (g)" (CSLC, 2016b).

The 6.82 hectare area reduces the impact on the mapped paluslope wetland to 0.662 hectares, located within the south east (0.62 hectares) and north east (0.042 hectares) portions. These areas are in a degraded to completely degraded (Keighery, 1994) condition (DER, 2016). It is assessed that a 50 metre buffer is not required for these areas. With the exception of degraded areas, the 6.82 hectare area retains a 50 metre buffer to the majority of the mapped paluslope wetland. The reduction in clearing area, retention of a wetland buffer and the requirement to retain trees with a width of greater than 15 centimetres will reduce impacts to wetland vegetation and reduce the potential for eutrophication, waterlogging and sedimentation.

On 7 March 2016 the application was advertised in *The West Australian* newspaper for a 21-day submission period. On 1 August 2016 the application was readvertised in *The West Australian* newspaper for a 7 day submission period to reflect the amended application area and change in clearing purpose. No public submissions have been received for the proposed clearing

There are no registered Aboriginal Sites of Significance mapped within the application area.

The Shire of Manjimup advised that the property the subject of this application is zoned by Local Planning Scheme No.4 as 'General Agriculture', and planning approval for the clearing of native vegetation is not required in this zone (Shire of Manjimup, 2016).

Taking into account the findings of this assessment, information provided by the applicant and advice from Parks and Wildlife and the CSLC, it has been determined to grant a clearing permit for 6.82 hectares of the 9.44 hectares applied to clear, for the reasons outlined in this report.

Pursuant to section 51E(7)(a) of the EP Act, it is open to the CEO to grant a permit for all or some of the clearing applied for.

**Methodology**   References:  
CSLC (2016b)  
Parks and Wildlife (2016c)  
Shire of Manjimup (2016)

GIS Databases:  
Aboriginal Sites of Significance

#### 4. References

- Commissioner of Soil and Land Conservation (CSLC) (2016a); Land Degradation Advice and Assessment Report for clearing permit application CPS 6959 received 11 May 2016; Department of Agriculture and Food Western Australia (DER Ref A1095155).
- Commissioner of Soil and Land Conservation (CSLC) (2016b); Land Degradation Advice and Assessment Report for amended clearing permit application CPS 6959 received 9 September 2016; Department of Agriculture and Food Western Australia (DER Ref A1165496).
- 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 (DER) (2016) Site Inspection Report for Clearing Permit Application CPS 6959/1. Site inspection undertaken 9 March 2016. Department of Environment Regulation, Western Australia (DER Ref A1109528).
- 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 May 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) (2016a) Direct Interest and Wetland advice provided for Clearing Permit Application CPS 6959/1. Department of Parks and Wildlife, Perth, Western Australia. (DER Ref A1087047)
- Department of Parks and Wildlife (Parks and Wildlife) (2016b) Rare flora advice received from the Department of Parks and Wildlife on 14 June 2016 (DER Ref A1115034).
- Department of Parks and Wildlife (Parks and Wildlife) (2016c) Additional wetlands advice received from the Department of Parks and Wildlife on 22 July 2016 (DER Ref A1138827).
- Department of the Environment (DotE) (2015) Setonix brachyurus in Species Profile and Threats Database, Department of the Environment, Canberra. <http://www.environment.gov.au/sprat>. Accessed May 2016.
- Environmental Protection Authority (EPA) (2008) Environmental Guidance for Planning and Development Guidance Statement No 33. Environmental Protection Authority, Western Australia.
- 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.
- Molloy, S., Wood, J., Hall, S., Wallrodt, S. and Whisson, G. (2009) South West Regional Ecological Linkages Technical Report. A report for the Western Australian Local Government Authority and Department of Environment and Conservation, Perth 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.
- Shire of Manjimup (2016) Advice received in relation to Clearing Permit Application CPS 6959/1 (DER Ref A1068713)
- Threatened Species Scientific Committee (2008). *Commonwealth Conservation Advice on Meziella trifida*. [Online]. Department of the Environment, Water, Heritage and the Arts. Available from: <http://www.environment.gov.au/biodiversity/threatened/species/pubs/7788-conservation-advice.pdf>.
- Valentine, L.E. and Stock, W. (2008) Food Resources of Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) in the Gngangara Sustainability Strategy Study Area. Edith Cowan University and Department of Environment and Conservation. December 2008.
- Water and Rivers Commission (1997) Position Statement: Wetlands, Water and Rivers Commission, Perth.
- Western Australian Planning Commission (2005) Guidelines for the Determination of Wetland Buffer Requirements. Western Australian Planning Commission, Albert Facey House, 469 Wellington Street, Perth Western Australia 6000.