



## CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

### PERMIT DETAILS

Area Permit Number: 5510/1

File Number: 2013/001042-1

Duration of Permit: From 15 March 2014 to 15 March 2019

### PERMIT HOLDER

Bendotti & Co Pty Ltd

### LAND ON WHICH CLEARING IS TO BE DONE

Lot 11941 on Plan 205570 (Eastbrook 6260)

Lot 4 on Diagram 10190 (Eastbrook 6260)

Lot 3 on Diagram 10190 (Eastbrook 6260)

Lot 2 on Diagram 10189 (Eastbrook 6260)

### AUTHORISED ACTIVITY

Clearing of up to 4.32 hectares of native vegetation within the area cross hatched yellow on attached Plan 5510/1a.

### CONDITIONS

#### 1. 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.

#### 2. Land on which revegetation and rehabilitation is to be done

Lot 7948 on Plan 140059 (Eastbrook 6260)

Closed Road (PIN: 1163924)

#### 3. Revegetation

The Permit Holder shall establish and maintain trees within the area cross hatched red on attached Plan 5510/1b in accordance with the following requirements:

- (a) trees shall be established and maintained to an average planting density of 1000 stems per hectare; and
- (b) *planting* is to commence within twelve months of any clearing authorised under this Permit.

#### 4. Records must be kept

In relation to the *planting* of areas pursuant to condition 3 of this Permit:

- (a) the location of any areas planted, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
- (b) a description of the planting activities undertaken; and
- (c) the number of trees and density planted.

## 5. Reporting

- (a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:
  - (i) of records required under condition 4 of this Permit; and
  - (ii) concerning activities done by the Permit Holder under this Permit between 1 January to 31 December of the preceding calendar year.
- (b) If no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding calendar year, a written report confirming that no clearing under this permit has been carried out, must be provided to the CEO on or before 30 June of each year.
- (c) Prior to 15 December 2018 the Permit Holder must provide to the CEO a written report of records required under condition 4 of this Permit where these records have not already been provided under condition 5(a) of this Permit.

## 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;

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

**weed/s** means any plant -

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



M Warnock  
MANAGER  
NATIVE VEGETATION CONSERVATION BRANCH  
*Officer delegated under Section 20  
of the Environmental Protection Act 1986*

13 February 2014



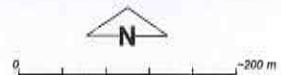
# Plan 5510/1a



## LEGEND

- Road Centrelines
- Local Government Authorities
- Cadastre for labelling Clearing Instruments
- Areas Approved to Clear

Manjirup 50cm Orthomosaic - Landgate 2007



Scale 1:6686  
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

*M Warnock* Date 13/2/14

M Warnock

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

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



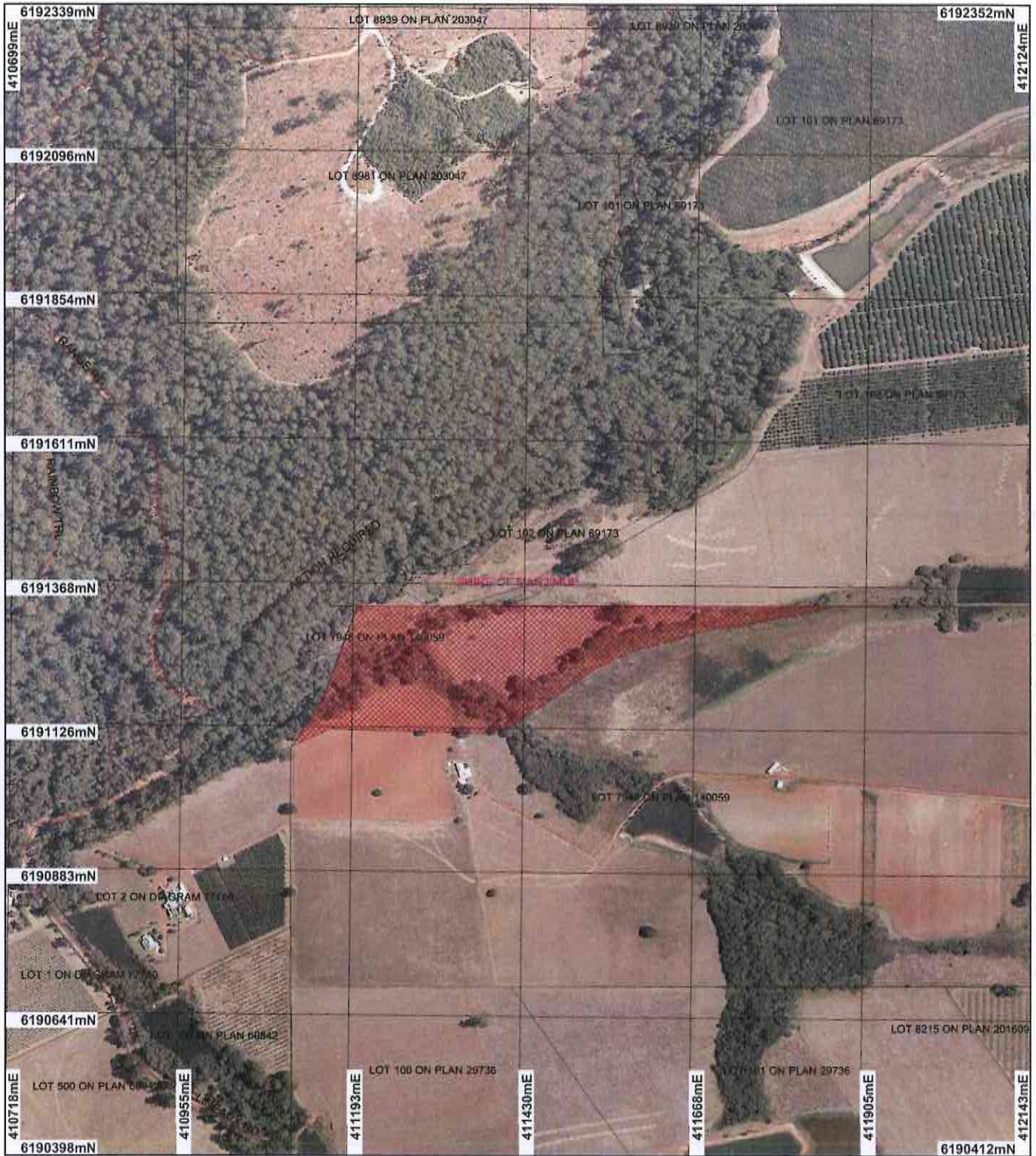
Government of Western Australia  
Department of Environment Regulation

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\* Project Data. This data has not been quality assured. Please contact map author for details.



# Plan 5510/1b



**LEGEND**

- Road Centrelines
- Local Government Authorities
- Cadastre for labelling
- Clearing Instruments
- Areas Subject to Conditions

Manjmur 200m Orthomosaic - Landgate 2007

Scale 1:8500  
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

M Warnock Date 13/2/14

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

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.

Government of Western Australia  
Department of Environment Regulation

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# Clearing Permit Decision Report

Government of Western Australia  
Department of Environment Regulation

## 1. Application details

### 1.1. Permit application details

Permit application No.: 5510/1

Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Bendotti & CO Pty Ltd

### 1.3. Property details

Property: LOT 11941 ON PLAN 205570 (House No. 285 PEMBERTON EASTBROOK 6260)  
LOT 4 ON DIAGRAM 10190 (Lot No. 4 PEMBERTON EASTBROOK 6260)  
LOT 3 ON DIAGRAM 10190 (House No. 178 PEMBERTON EASTBROOK 6260)  
LOT 2 ON DIAGRAM 10189 (EASTBROOK 6260)  
CLOSED ROAD ( EASTBROOK 6260)  
LOT 7948 ON PLAN 140059 (House No. 64 MOLTONIS EASTBROOK 6260)  
Shire of Manjimup

Local Government Area:

Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
4.32		Mechanical Removal	Dam construction or maintenance

### 1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 13 February 2014

## 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
Mapped Beard vegetation association 3 is described as Medium forest; jarrah-marri (Shepherd et al 2001).	The clearing of 4.32 hectares of native vegetation is for the purpose of constructing a dam and water catchment.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The condition of the vegetation under application was determined by a site inspection undertaken by the former Department of Environment and Conservation (DEC, 2013).
Mattiske vegetation complex PM1 is described as tall open forest of Eucalyptus diversicolor with mixtures of Corymbia calophylla on valley slopes and low forest of Agonis juniperina-Banksia seminuda-Callistachys lanceolata on valley floors in the perhumid zone (Mattiske and Havel 1998).	The vegetation within the application is in a good (Keighery 1994) condition composing of mainly Taxandria juniperina (Warren River Cedar ) with a few Karri sp. on the edges. The ground layer consists mostly of introduced weeds and grasses including blackberry, reeds and some sedges (DEC 2013).		The vegetation within the application is in a good (Keighery 1994) condition composing of mainly Taxandria juniperina (Warren River Cedar) with a few Karri trees on the edges. The ground layer consists mostly of introduced weeds and grasses including blackberry, reeds and some sedges (DEC 2013).

## 3. Assessment of application against clearing principles

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

Comments

#### Proposal is not likely to be at variance to this Principle

The applicant proposes to clear 4.32 hectares of native vegetation for the purpose of constructing a dam and water catchment.

The vegetation under application is in a good (Keighery 1994) condition. The vegetation consists mostly of Taxandria juniperina (Warren River Cedar) with a few Karri trees on the edges. The ground layer consists mostly of introduced weeds and grasses including blackberry, reeds and some sedges (DEC 2013).



Eight fauna species listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 have been recorded within the local area (10 kilometre radius) being, *Bettongia penicillata* subsp. *ogilbyi* (Woylie, Brush-tailed Bettong), *Calyptorhynchus banksii* subsp. *naso* (Forest Red-tailed Black Cockatoo), *Calyptorhynchus baudinii* (Baudin's Cockatoo), *Calyptorhynchus latirostris* (Carnaby's Cockatoo), *Galaxiella munda* (Western Mud Minnow), *Phascogale tapoatafa* subsp. *tapoatafa* (Southern Brush-tailed Phascogale), *Pseudocheirus occidentalis* (Western Ringtail Possum) and *Setonix brachyurus* (Quokka) (DEC 2007-). The vegetation under application may provide fauna habitat for ground dwelling fauna however the area proposed to be cleared is well represented elsewhere within the local and regional area, and no loss of significant habitat for fauna indigenous to Western Australia is expected.

Three priority flora species have been recorded within the local area (10 kilometre radius). A priority 3 species is found on sand and swamps. A priority 1 species is found on littered, organic brown soil in high, open or dense forests. A priority 2 species has been identified on hillsides on bare gravelly cryptogamic brown clay over ironstone and on exposed stone on hillside with bare stony crusted limestone valleys (Western Australian Herbarium 1998). Suitable habitat for these species has not been identified within the application area and therefore it is unlikely the area proposed to be cleared will contain priority flora.

The vegetation proposed to be cleared is located adjacent to intact remnant vegetation. The disturbance resulting from the proposed clearing may increase the risk of weeds and dieback spreading into this vegetation. Weed and dieback management practices will assist in mitigating this risk.

Given the above the vegetation within the application is not likely to comprise of a high level of biological diversity.

Therefore, the clearing as proposed is not likely to be at variance to this principle.

#### Methodology

##### References:

- DEC (2007-)
- DEC (2013)
- Western Australian Herbarium (1998)

##### GIS Database:

- SAC Biodata sets - accessed April 2013

### **(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

##### **Proposal may be at variance to this Principle**

Eight fauna species listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 have been recorded within the local area (10 kilometre radius) being, *Bettongia penicillata* subsp. *ogilbyi* (Woylie, Brush-tailed Bettong), *Calyptorhynchus banksii* subsp. *naso* (Forest Red-tailed Black Cockatoo), *Calyptorhynchus baudinii* (Baudin's Cockatoo), *Calyptorhynchus latirostris* (Carnaby's Cockatoo), *Galaxiella munda* (Western Mud Minnow), *Phascogale tapoatafa* subsp. *tapoatafa* (Southern Brush-tailed Phascogale), *Pseudocheirus occidentalis* (Western Ringtail Possum) and *Setonix brachyurus* (Quokka) (DEC 2007-).

A site inspection conducted by the former DEC (2013) did not identify significant habitat for the Black Cockatoo species. The majority of the vegetation under application consists of Warren River Cedar that does not provide nesting hollows. *Agonis flexuosa* was identified within the application (DEC 2013) which may provide suitable habitat for the Western Ringtail Possum.

The vegetation under application may provide fauna habitat for ground dwelling fauna and may provide a linkage for fauna species between remnant vegetation and conservation areas located within the local area.

Based on the above, the proposed clearing may be at variance to this principle.

To address the impacts identified in this assessment the applicant has proposed to revegetate 8.6 hectares of native vegetation along a section of the minor watercourse that intersects the application area. Revegetation practices will help mitigate impacts to fauna habitat and assist in fauna movement across the landscape.

#### Methodology

##### References:

- DEC (2007-)
- DEC (2013)

##### GIS Database:

- SAC Biodata sets - accessed April 2013

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

**Comments Proposal is not likely to be at variance to this Principle**

One record of rare flora is located approximately 2.8 kilometres south east of the application area.

The species of rare flora is found on sand, clayey loam, laterite. Margins of winter-wet flats, swamps and freshwater lakes (Western Australian Herbarium 1998-). Suitable habitat is not located within the application area.

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

**Methodology** References:  
Western Australian Herbarium (1998-)  
  
GIS Database:  
- SAC Biodata sets - accessed April 2013

**(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 Proposal is not likely to be at variance to this Principle**

No Threatened Ecological Communities (TEC) have been mapped within the local area (10 km radius).

The closest record of a TEC is '-Scott River Ironstone Association-' located approximately 55 kilometres west of the area under application.

Given the distance to the closest TEC is unlikely the vegetation proposed to be cleared is necessary for the maintenance of this TEC. Therefore the clearing as proposed is not likely to be at variance to this principle.

**Methodology** GIS Database:  
- SAC Biodata sets - accessed April 2013

**(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 Proposal is not likely to be at variance to this Principle**

The area under application is located within the Warren Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion has approximately 80 per cent of its Pre European vegetation extent remaining (Government of Western Australia 2011).

The application area is mapped as Beard Vegetation Association 3 and Mattiske Vegetation Complex PM1, which retain approximately 79 and 67 per cent of their respective pre-European extents within the Warren IBRA bioregion (Government of Western Australia 2013, Mattiske and Havel 1998).

Digital imagery (Manjimup 50cm Orthomosaic - Landgate 2007) indicates that the local area (10 kilometre radius) surrounding the area under application retains approximately 70 per cent vegetation cover.

The vegetation under application may provide a linkage for fauna species between remnant vegetation and conservation areas located within the local area therefore the vegetation proposed to be cleared may be considered a significant remnant. The applicant has proposed to revegetate 8.6 hectares of native vegetation along a section of the minor watercourse that intersects the application area. Revegetation practices will help mitigate impacts to fauna habitat and assist in fauna movement across the landscape.

The area under application may be important as an ecological linkage however the local area has not been extensively cleared.

Therefore, the clearing as proposed is not likely to be at variance to this principle.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion*				
Swan Coastal Plain	833,982	664,123	80	83
Shire*				
Shire of Manjimup	697,370	589,098	84	92
Beard Vegetation Association in Bioregion*				
3	250,263	198,873	79	80
Mattiske Vegetation Complex ***				
PM1	25,801.15	17,372.58	67	59

\* Government of Western Australia (2013)  
\*\* Mattiske and Havel (1998)

**Methodology**

Reference:

- Government of Western Australia. (2013)
- Mattiske and Havel (1998)

GIS Database:

- Manjimup 50cm Orthomosaic - Landgate 2008
- NLWRA, Current Extent of Native
- Sac bio datasets - accessed April 2013

**(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**

**Proposal is at variance to this Principle**

A minor perennial watercourse (a tributary of Lefroy Brook) intersects the application area. Lefroy Brook a major watercourse is located approximately 1.6 kilometres west of the application area.

Given a watercourse intersects the application area the vegetation proposed to be cleared is considered to be growing in association with a watercourse. Therefore the clearing as proposed is at variance to this principle.

**Methodology**

GIS database:

- Hydrology, linear

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

**Comments**

**Proposal is not likely to be at variance to this Principle**

The area under application has been mapped as soil type UC1 which is described as steep hilly to hilly dissected lateritic plateau with steep valley side slopes: chief soils are hard, and also sandy, neutral, and also acidic, yellow and yellow mottled soils, with conspicuous but relatively smaller areas of red earths. Associated are areas of block laterite, gravelly and bouldery and soils on tops of rises and their colluvial slopes; some areas of leached sands soils on terraces of major streams (Northcote et al 1960 - 1968).

Wind erosion is unlikely on the type of soil located within the application area. The application area is well drained with drainage lines that flowing into adjacent properties (DEC 2013) therefore the risk of waterlogging and water erosion is unlikely.

Given the above the clearing as proposed is not likely to cause appreciable land degradation and therefore is not likely to be at variance to this principle.

**Methodology**

References:

- Commissioner of Soil and Land Conservation (2013)
- DEC (2013)
- Northcote et al (1968)

GIS Database:

- Soils, statewide
- 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 Proposal may be at variance to this Principle**

Numerous conservation areas are located within the local area (10 kilometre radius). The closest being Warren State Forest which is located approximately 150 metres north east of the application area.

Big Brook State Forest and Gloucester National Park are also located within the local area (10 kilometre radius) both are located adjacent to vegetation within the watercourse that is proposed to be cleared.

The vegetation proposed to be cleared may provide a linkage for fauna species between remnant vegetation and conservation areas in the local area,

Based on the above the clearing as proposed may be at variance to this principle.

**Methodology** GIS Databases:  
- DEC, Tenure  
- Hydrology, linear  
- Manjimup 50cm Orthomosaic - Landgate 2008

**(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 Proposal is at variance to this Principle**

A minor perennial watercourse intersects the application area. The closest major watercourse is Lefroy Brook located approximately 1.6 kilometres west of the application area. The minor watercourse intersecting the application leads into this major watercourse.

The area under application has drainage lines that flow into adjacent properties (DEC 2013). Therefore the removal of native vegetation may increase sedimentation into the intersecting and nearby watercourses.

The proposed clearing site lies within the 1 September 1978 Country Areas Water Supply Act 1947 (CAWS Act) gazetted Warren River Water Reserve. The Lot is not currently located in a Public Drinking Water Source area hence no priority source protection area has been assigned or is proposed (DoW 2013a). The Warren River catchment has however been subject to CAWS Act native vegetation clearing controls since December 1978 to prevent salinisation of water resources (DoW 2013a).

No CAWS Act compensation has been paid to retain native vegetation on the current 401.7 hectares Bendotti and Co Pty Ltd holding comprised of Lots 1, 2, 3, 4, 5193, 7948, 8166, 8168, 8174 and 11941. The Bendotti and Co Pty Ltd holding is located in Zone D, a low salinity risk part of the catchment where DoW Policy and Guidelines for the 'Granting of Licences to Clear Indigenous vegetation' provide for the grant of a licence subject to the retention of native vegetation on at least 10 per cent of the holding area (DoW 2013a).

2007 imagery suggests there is only 29.7 hectares (7.4 per cent) of native vegetation on the applicants 401.7 hectare holding (Dow 2013a).

Based on the above, the clearing as proposed is at variance to this principle.

The Department of Water (DoW 2013a) has advised revegetation, comprised of the local provenance species, of twice the permitted area is established and maintained in perpetuity, on the holding may mitigate the risk of salinity. To address the impacts identified in this assessment the applicant has proposed to revegetate 8.6 hectares of native vegetation along a section of the minor watercourse that intersects the application area.

**Methodology** References:  
- DEC (2013)  
- DoW (2013a)  
  
GIS Databases:  
- Hydrology, linear

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

**Comments Proposal is not likely to be at variance to this Principle**

The area under application slopes towards the south and contains drainage lines that flow into adjacent properties (DEC 2013). Therefore the clearing as proposed is not likely to cause or exacerbate the incidence or intensity of flooding.

The clearing as proposed is not likely to be at variance to this principle.

**Methodology** References:  
- DEC (2013)

GIS Databases:  
- Topographic contours, statewide.

### Planning instrument, Native Title, Previous EPA decision or other matter.

#### Comments

The applicant proposes to clear 4.32 hectares of native vegetation for the purpose of constructing a dam and water catchment.

The proposed clearing site lies within the 1 September 1978 Country Areas Water Supply Act 1947 (CAWS Act) gazetted Warren River Water Reserve. The Lot is not currently located in a Public Drinking Water Source area hence no priority source protection area has been assigned or is proposed (DoW 2013a). The Warren River catchment has however been subject to CAWS Act native vegetation clearing controls since December 1978 to prevent salinisation of water resources (DoW 2013a).

No CAWS Act compensation has been paid to retain native vegetation on the current 401.7 hectares Bendotti and Co Pty Ltd holding comprised of Lots 1, 2, 3, 4, 5193, 7948, 8166, 8168, 8174 and 11941. The Bendotti and Co Pty Ltd holding is located in Zone D, a low salinity risk part of the catchment where DoW Policy and Guidelines for the 'Granting of Licences to Clear Indigenous vegetation' provide for the grant of a licence subject to the retention of native vegetation on at least 10 per cent of the holding area (DoW 2013a). 2007 imagery suggests there is only 29.7 hectares (7.4 per cent) of native vegetation on the applicants 401.7 hectare holding (DoW 2013a). To address the impacts identified in this assessment the applicant has proposed to revegetate 8.6 hectares of native vegetation along a section of the minor watercourse that intersects the application area.

DoW (2013b) has advised the area under application is located within the Warren River and Tributaries Surface Water Area as proclaimed under the Rights in Water and Irrigation Act 1914. Any taking or diversion of surface water in this proclaimed area for purposes other than domestic and or/ stock watering is subject to licensing by DoW.

The Department of Water (DoW 2013c) has issued a 'Permit to Obstruct or Interfere' to Bendotti and Co Pty Ltd within Lot 11941 on Plan 205570, Eastbrook for the construction of a dam. The applicant has advised a licence to take water from the DoW is not required.

**Methodology** References:  
- DoW (2013a)  
- DoW (2013b)  
- DoW (2013c)

## 4. References

- DEC (2007 - ) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed April 2013
- DEC (2013) Site Inspection Report for Clearing Permit Application CPS 5510/1, Lot 2, 3, 4 and 11941 Pemberton Road, East Brooke. Site inspection undertaken 3 April 2013. Department of Environment and Conservation, Western Australia (DEC Ref: A625324).
- DoW (2013a) Advice for Clearing Permit CPS 5510/1. Department of Water. Land and Clearing (CAWSA) Management. Western Australia. (DEC Ref: A615983).
- DoW (2013b) Advice for Clearing Permit CPS 5510/1. Department of Water. Western Australia. DEC Ref: A617252
- DoW (2013c) Permit to Obstruct or Interfere (S17). Department of Water, Western Australia. (DER Ref: A723163)
- Government of Western Australia (2013) 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. WA Department of Environment and Conservation, Perth.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> (Accessed April 2013).