



## CLEARING PERMIT

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

### PERMIT DETAILS

Area Permit Number: 3523/1  
File Number: DEC12114  
Duration of Permit: From 7 March 2010 to 7 March 2012

### PERMIT HOLDER

Ian Russell Shepperson  
Daniel James Shepperson  
Holly Ord

### LAND ON WHICH CLEARING IS TO BE DONE

Lot 402 on Plan 58713

### AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 0.75 hectares of native vegetation within the hatched yellow on attached Plan 3523/1.

### CONDITIONS

#### 1. 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;
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared; and
- (d) at least once in every 12 month period for the term of this Permit, the Permit Holder must remove or kill any weeds growing within the areas cleared under the Permit.

### Definitions

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

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

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

*weed/s* means a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*.



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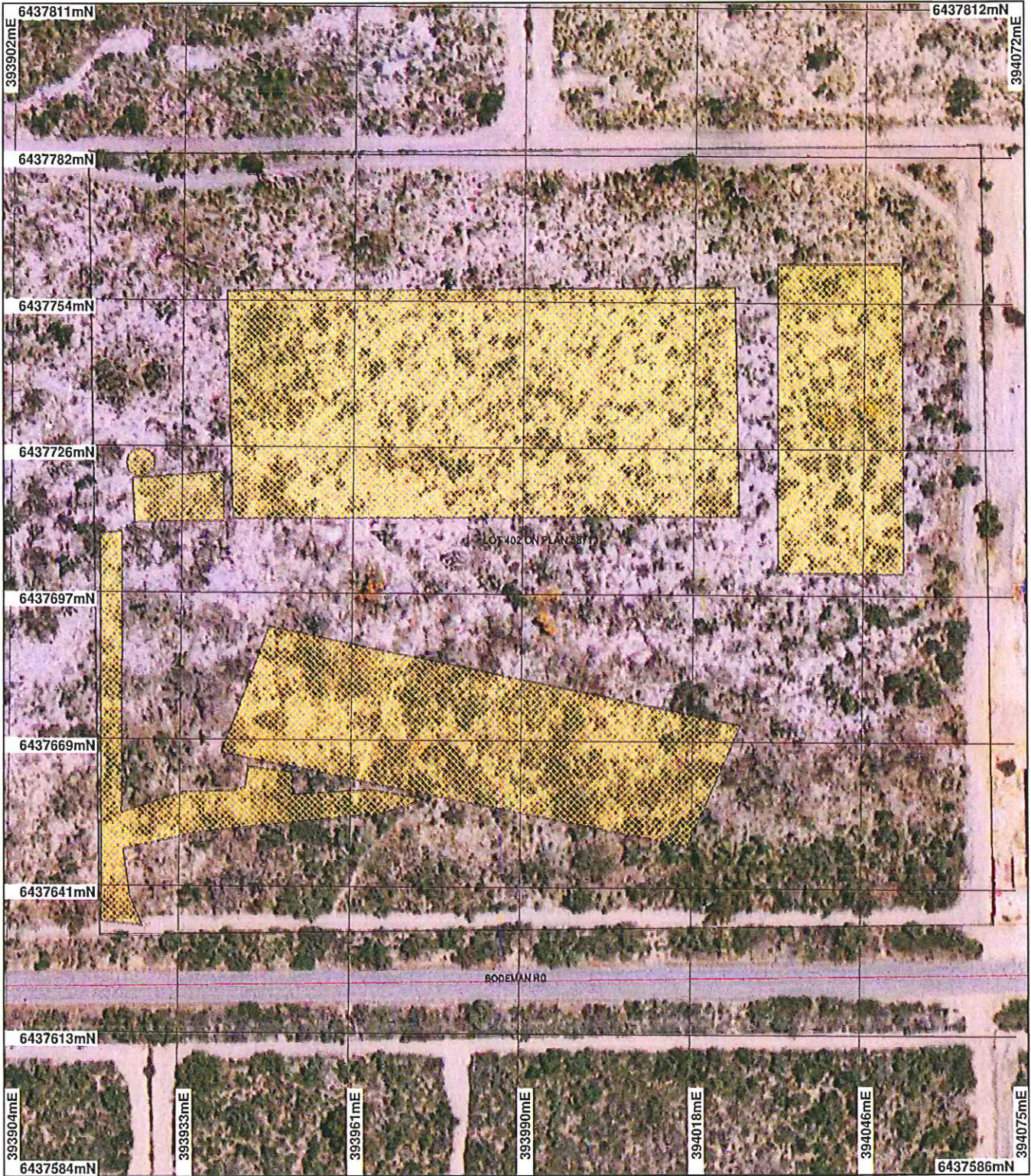
Keith Claymore  
A/ ASSISTANT DIRECTOR  
NATURE CONSERVATION DIVISION

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


4 February 2010



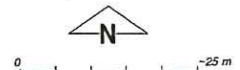
# Plan 3523/1



## LEGEND

- Clearing Instruments**
-  Areas Approved to Clear
  -  Road Centrelines
  -  Cadastre for labelling

Swan Coastal Plain Central  
20cm Orthomosaic - Landgate  
2006



Scale 1:1000  
(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.

*K. Claymore* Date *4/2/10*  
K. Claymore

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.



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Environment and Conservation

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## 1. Application details

### 1.1. Permit application details

Permit application No.: 3523/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Holly Ord, Daniel James Shepperson and Ian Russell Shepperson

### 1.3. Property details

Property: LOT 402 ON PLAN 58713 (House No. 105 BODEMAN WANDI 6167)  
Local Government Area:  
Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.75		Mechanical Removal	Building or Structure

## 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
Hedde Vegetation Complex: Central and South - Vegetation ranges from woodland of <i>E. marginata</i> - <i>C. fraseriana</i> - <i>Banksia</i> spp. To low woodland of <i>Melaleuca</i> species and sedgelands which occupy the moister sites (Hedde et al 1980).	The proposal is to clear up to 0.75 hectares of native vegetation for the purpose of the construction of a house, workshop, horse stables, water tank, paddocks and arena.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	Given that a site inspection was conducted for CPS3232/1 (DEC 2009a) on the 17 August 2009 and that the area under application for CPS 3523/1 is the same as that for CPS3232/1, a new site inspection was not warranted.
Beard Vegetation Complex: 1001 - Medium very sparse woodland; jarrah, with low woodland; banksia and casuarina (Shepherd 2007; SAC Bio datasets 17/08/2009).	The vegetation under application has previously been burnt and has good regeneration occurring across the site. The vegetation comprises <i>Eucalyptus marginata</i> , <i>Banksia attenuata</i> , <i>B. menziesii</i> , <i>Adenanthos cygnorum</i> , <i>Jacksonia</i> spp, <i>Lysinema ciliatum</i> , <i>Lyginia barbata/imberbis</i> , <i>Hibbertia hypericoides</i> , <i>H. racemosa</i> , <i>Daviesia</i> spp, <i>Conostylis</i> spp, <i>Drosera macrantha</i> , <i>Allocasuarina humilis</i> , <i>Hovea trisperma</i> , <i>Phlevocarya ciliate</i> , <i>Petrophile linearis</i> , <i>Mesomelina tretrogona</i> , <i>Leucopodon</i> spp, <i>Xanthorrhoea preissii</i> , <i>Acacia pulchella</i> , <i>Stirlingia</i> spp, <i>Desmocladius</i> spp, <i>Lomandra</i> spp and <i>Calatasia narragara</i> , with minimal weeds such as veldt grass and gladiolus species and limited patches of bare earth (DEC, 2009a).		
	The vegetation within the applied area is considered to be in excellent		

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

The vegetation under application has previously been burnt and has good regeneration across the site, with an average height of approximately 1.5m for upper storey species such as *Banksia attenuata* and *B. menziesii*, with minimal weeds present (DEC, 2009a). The vegetation is considered to be in excellent (Keighery, 1994) condition overall (Coffey Environments, 2009).

A spring flora survey of Lot 402 (~2.2ha) conducted by Coffey Environments (2009) identified a total of 104 flora taxa (including 92 native species and 12 weed species) of which 64 species were recorded within the northern area under application and 60 within the southern applied area. In addition, Coffey Environments (2009) identified the Floristic Community Type (FCT) on site, as most likely to be representative of FCT23a - Central *Banksia attenuata* - *B. menziesii* woodlands. No rare flora or priority species were recorded within the areas under application (Coffey Environments, 2009).

According to Coffey Environments (2009) the total number (104) of flora species found within Lot 402 has a higher species richness when compared to two nearby sites located in Rowley Road (4ha) and Robertson Road (14ha) which respectively recorded a total of 64 flora species (ATA Environmental, 2006) and 70 flora species (Coffey Environments, 2007). However, Coffey Environments (2009) considered that the number of species found within Lot 402 was average for a 2.2ha site. DEC (2009e) advises that whilst the vegetation within the areas under application is not exceptionally diverse within the known distribution of Floristic Community Type 23a, the vegetation under application does represent high diversity for this community type within the Wandii area and that the vegetation on site is locally significant as a remnant within the Wandii area.

No rare flora or priority species were recorded within the areas under application (Coffey Environments, 2009).

Although the area under application is located within the distribution range of the Endangered Carnaby's black-cockatoo (*Calyptorhynchus latirostris*) and the Forest Red-tailed black-cockatoo (*Calyptorhynchus banksii naso*, Vulnerable) (DEC, 2009d), given the proximity of conservation reserves in the local area, the vegetation on site is not considered to provide significant habitat for these identified bird species (DEC, 2009d).

The dense vegetation under application forms part of a corridor of remnant bushland on private property linking it to the Jandakot Regional Park (DEC, 2010b) and is likely to provide suitable habitat for a range of ground dwelling fauna species, including species of conservation significance such as the Quenda (P5) and Chuditch, (Vulnerable) which have been recorded in the Wandii area. Numerous Quenda diggings and local foraging bird species were observed during the DEC site inspection (DEC, 2009a).

Given the vegetation condition and diversity within the area under application it is considered that the applied area may be an area of high biological diversity.

##### Methodology

##### References:

- Coffey Environments (2009)
- DEC (2009a)
- DEC (2009d)
- DEC (2009e)
- DEC (2010a)
- DEC (2010b)
- Government of Western Australia.

##### GIS Databases:

- Perth Metropolitan Area Central 20cm Orthomosaic - Landgate 2007\_
- SAC BIO datasets - accessed 21/01/2010

#### (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**

There are six fauna species of conservation significance which have been recorded within the local area (5km radius) including the Endangered Carnaby's black-cockatoo (*Calyptorhynchus Latirostris*), Forest Red-tailed black-cockatoo (*Calyptorhynchus banksii*, VU), Chuditch (*Dasyurus geoffroi*, VU), Western Brush Wallaby (*Macropus irma*, P4), Quenda (*Isodon obesulus fusciventer*, P5), and the Lined skink (*Lerista lineata*, P3), the closest being the Forest Red-tailed black cockatoo which was recorded approximately 1.2km southwest of the applied area.



The area under application is located within the range of the Carnaby's black-cockatoo (*Calyptorhynchus latirostris*) (EPBC Act, Endangered). These birds inhabit uncleared or remnant Eucalyptus and Banksia woodlands and coastal scrub foraging on the seeds and nectar from the flowers of Eucalyptus, Banksia, Grevillea and Hakea species (Burbidge 2004). However, the trees under application are immature and are unlikely to provide suitable nesting hollows; and given the proximity of conservation reserves in the local area, the vegetation under application is not considered to provide significant habitat for the Carnaby's black-cockatoo and the Forest Red-tailed black-cockatoo (DEC 2009d).

The dense vegetation under application forms part of a corridor of remnant bushland on private property linking it with Jandakot Regional Park (DEC, 2010b) and it may provide suitable habitat for a range of ground dwelling fauna species, including species of conservation significance such as the Quenda (P5) and Chuditch, (Vulnerable) which have been recorded in the Wandii area. During the DEC site inspection numerous Quenda diggings and local foraging bird species were observed throughout the applied area (DEC, 2009a).

Given that the area under may provide suitable habitat for a range of fauna species, including species of conservation significance, it is considered that the proposed clearing may be at variance to this Principle.

**Methodology**

**References:**

- Burbidge (2004)
  - DEC (2001)
  - DEC (2006)
  - DEC 92007)
  - DEC (2009a)
  - DEC (2009d)
  - DEC (2010a)
  - DEC (2010b)
  - Keighery (1994)
- GIS Databases:
- SAC Bio datasets accessed 21/01/2010

**(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**

Within the local area (5km radius) there are 14 known occurrences of the rare flora species *Caladenia huegelii*, *Diuris purdiei* and *Drakaea elastica*, all of which occur in the same vegetation complex and soil type to that found within the area under application. Of the identified rare flora species, *Caladenia huegelii* is considered to have significant potential to occur on site (DEC, 2009b) and *Drakaea elastica* may also potentially occur on site (DEC, 2009c).

In addition, there are eleven known populations of seven species of priority flora, the closest *Eremaea asterocarpa* subsp. *Brachychlada* (P1) is located approximately 415m from the applied area and is found within the same vegetation and soil type to that found on site.

A spring flora survey conducted on 22 September 2009 did not identify any rare or priority flora species with the area under application (Coffey Environments, 2009).

Given that no rare flora were identified on site, it is not considered likely that the vegetation under application includes, or is necessary for the continued existence of, rare flora.

**Methodology**

**References:**

- Brown (1998)
  - Coffey Environments (2009)
  - DEC (2009b)
  - DEC (2009c)
- GIS Databases:
- Perth Metropolitan Area Central 20cm Orthomosaic - Landgate 2007
  - Heddl Vegetation Complexes
  - Soils Statewide - DA 11/99
  - SAC Bio datasets accessed 21/01/2010
  - Western Australian Herbarium (1998)

**(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**

There are no known occurrences of Threatened Ecological Communities (TEC) within the local area (5km radius). The closest TEC identified as Floristic Community Type SCP26a: *Melaleuca huegelii* - *Melaleuca acerosa* shrublands on limestone ridges is located approximately 6.6km southeast of the applied area.

A flora survey conducted by Coffey Environments (2009) did not identify any Threatened Ecological Communities within the areas under application.

Given the above, it is not considered likely that the vegetation under application comprises, or is necessary for the maintenance of a TEC.

**Methodology**    **References:**  
- Coffey Environments (2009)  
- DEC (2009a)  
**GIS Databases:**  
- Heddle Vegetation Complexes  
- Perth Metropolitan Area Central 20cm Orthomosaic - Landgate 2007  
- Soils Statewide  
- SAC Bio Datasets accessed 21/01/2010

**(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**  
Heddle et al. (1980) defines the vegetation under application as Bassendean Complex Central and South of which there is 27% of pre-European extent remaining (EPA 2006). The vegetation under application is also described as Beard vegetation association 1001 of which there is 25.34% of pre-European extent remaining (Shepherd 2007).

The area under application is located within the Town of Kwinana, within which there is 40.8% of pre-European extent remaining.

Given the current representation levels of the vegetation under application and the fact that there are a number of conservation reserves located within the local area which are comprised of the same vegetation types, it is not considered likely that the vegetation under application is significant as a remnant in an area that has been extensively cleared.

\* (Shepherd, 2007)  
\*\* (EPA, 2006)  
^ Area within Intensive Land Use Zone

**Methodology**    **References:**  
- Coffey Environments (2009)  
- DEC (2009e)  
- EPA (2000)  
- EPA (2006)  
- Heddle et al (1980)  
- Shepherd et al (2007)  
**GIS Databases:**  
- Heddle Vegetation Complexes  
- Perth Metropolitan Area Central 20cm Orthomosaic - Landgate 2007  
- Pre-European Vegetation  
- SAC Bio Datasets accessed 7/09/2009

**(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 not likely to be at variance to this Principle**  
There are numerous wetlands within a 5km radius of the area under application, including a Conservation Category Wetland and a Resource Enhancement Wetland, which are respectively located approximately 1km northwest and 475m west of the applied area. In addition, there are also numerous Environmental Policy Protection (EPP) Lakes within the local area, the closest being situated approximately 1.4km south of the applied area; and an ANCA wetland (Gibbs Road Swamp) which is located approximately 250m north of the area under application.

The closest watercourse is the Peel Main Drain which is located approximately 2.4km southwest of the applied area.

Given the distance to the nearest wetland and watercourse and that no wetland vegetation was observed during the DEC site inspection (DEC, 2009a), the vegetation under application is not considered likely to include vegetation growing in, or in association with, an environment associated with a watercourse or wetland.



- Methodology**    **References:**
- DEC (2009a)
- GIS Databases:**
- ANCA wetlands - Environment Australia 26/3/99
  - EPP, Lakes
  - Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
  - Hydrography, linear\_1
  - Hydrography, linear (hierarchy)
  - Perth Metropolitan Area Central 20cm Orthomosaic - Landgate 2007

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

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

The area under application is associated with subdued dune-swale terrain and the chief soils are described as leached sands (Northcote et al. 1968). Generally, these soils have a high risk of wind erosion and a low risk of water erosion due to the high infiltration rates associated with sands. The applied area is associated with a low to nil risk of salinity.

The main land degradation risk associated with the removal of vegetation on the identified soil type is considered to be nutrient export and wind erosion (Department of Agriculture, 2005). The clearing of native vegetation for the proposed horse paddocks and arena (~0.4 ha) should not artificially elevate nutrient levels, therefore minimising the risk of eutrophication. However, without appropriate vegetation cover, windbreaks or adequate dust suppression on exposed surfaces, the proposed clearing on the sandy soils may result in wind erosion.

Given that the proposed clearing may cause wind erosion, the proposed clearing is considered to may be at variance to this Principle.

- Methodology**    **References:**
- DEC (2009a)
  - Northcote et al (1960-1968)
  - Department of Agriculture (2005)
- GIS Databases:**
- Salinity Risk LM 25m - DOLA 00
  - Soils, Statewide - DA 11/99

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

There are numerous areas reserved for conservation purposes within a 5km radius of the area under application, the closest being Bush Forever site 347 (Wandi Nature Reserve) and Bush Forever site 348 (Modong Nature Reserve) which form part of the Jandakot Regional Park; which is located approximately 790m south of the applied area.

Although the area under application is situated in a landscape which has been extensively cleared for rural and urban development, the area under application forms part of a corridor of remnant bushland on private property linking it with the Jandakot Regional Park (DEC 2010b) and may be utilised by a number of fauna species, including species of conservation significance such as the Quenda (P5) and Chuditch (Vulnerable) which have been recorded in the Wandu area.

Whilst it is acknowledged that Lot 402 forms part of the identified corridor linkage and that the proposed clearing would reduce the size of the northern-southern linkage to Jandakot Regional Park, given the relatively small size of the area to be cleared (0.75ha) and that the property is located on the eastern edge of this linkage, the proposed clearing is not considered likely to have a significant impact on the environmental values of any adjacent or nearby conservation area.

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

- Methodology**    **References:**
- DEC (2009a)
  - DEC (2010a)
  - DEC (2010b)
- GIS Databases:**
- Bushforever
  - CALM Managed Lands and Waters
  - CALM Regional Parks

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

The nearest wetland, an ANCA Wetland (Gibbs Road Swamp System) is located approximately 250m north of the applied area and the closest watercourse is the Peel Main Drain which is located approximately 2.4km southwest of the area under application. Given the high infiltration rates of the sandy soils identified within the applied area, and the distance to the nearest wetland and watercourse, it is not considered that the proposed clearing would cause water erosion resulting in deterioration in surface water quality.

The area under application is located within the Peel-Harvey Environmental Protection Policy (EPP) area and has a nil to low risk of salinity. Given that the Department of Water (2009) have approved a Nutrient and Irrigation Management Plan for Lot 402, it is not considered likely that the proposed clearing would artificially elevate nutrient levels or cause salinity resulting in the deterioration in the quality of underground water and

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

**Methodology References:**

- Department of Water (2009)
- DOE (2004)
- GIS Databases:
  - ANCA wetlands - Environment Australia 26/3/99
  - EPP, Areas
  - Hydrography, linear (hierarchy)
  - Public Drinking Water Source Areas (PDWSA)
  - RIWI Act, Groundwater Areas

**(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 is located approximately 2.4km northwest of the Peel Main Drain and approximately 250 metres south of the Gibbs Road Swamp, an ANCA Wetland, at an elevation of 30 - 35 metres.

Given the distance to the nearest wetland and watercourse and the high infiltration of the soils on site, it is not considered likely that the proposed removal of vegetation would impact on peak flood height or duration.

**Methodology References:**

- GIS Databases:
  - ANCA wetlands - Environment Australia 26/3/99
  - Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DEC
  - Hydrography, linear (hierarchy) - DOW
  - Topographic Contours, Statewide - DOLA

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

**Comments**

At a hearing conducted on 9 December 2009, the State Administrative Tribunal (SAT) overturned the Town of Kwinana's refusal to allow equine development on Lot 402 Bodeman Road, Wandii. However, Condition 10 of the SAT decision states that the applicant has to apply to the Town of Kwinana for an Equine Premises licence prior to any stock being kept of the property. (TRIM ref: DOC113664).

An Equine Premises licence is required by the Town of Kwinana for Lot 402 Bodeman Road, Wandii (TRIM ref: DOC117153).

The Department of Water have issued a licence to construct or alter a well. (TRIM ref: DOC116202).

The Department of Water advice (DoW) advice that a licence to construct a well has been issued, but this does not allow the property owner to take any water. Once DoW have received a completed bore log from the driller and provided the bore log is in compliance with the conditions of the licence to construct a well, a licence to take water will then be issued. (TRIM ref. DOC116250).

Subsequent to assessing CPS3232/1, information relating to fauna and corridor linkages has been received, which have been considered and addressed during the assessment of CPS3523/1.

Perennial grasses, such as kikuyu, are very invasive to remnant bushland (Department of Agriculture, 2000) and can result in deterioration in the condition of the native vegetation through increased edge effects. In addition, whilst it is noted that the applicant intends to rotate the horses between the paddocks and stables, given the soils on site have a high risk of wind erosion, overgrazing may result in appreciable land



degradation. To mitigate the impacts of weeds, weed management conditions have been placed on the Permit.

There are no Aboriginal Sites of significance within the area under application.

**Methodology**

**References:**

- Department of Agriculture (2000)
- Department of Water (2010)
- State Administrative Tribunal Decision (2009)
- Town of Kwinana (2009)

**GIS Databases:**

- Aboriginal Sites of Significance

#### **4. Assessor's comments**

**Comment**

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986, and the proposed clearing may be at variance to Principle (a), (b) and (g); and is not likely to be at variance to the remaining clearing Principles.

#### **5. References**

Brown A., Thomson-Dans C. and Marchant N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.

Burbidge, A. (2004) Threatened Animals of Western Australia, Department of Conservation and Land Management, Perth, Western Australia.

Coffey Environments (2009) Draft Flora and Vegetation Survey for Lot 402 Bodeman Road, Wandii.

DEC (2001) Living with Quenda [www.dec.wa.gov.au/pdf/plants\\_animals/living\\_with.../quendas.pdf](http://www.dec.wa.gov.au/pdf/plants_animals/living_with.../quendas.pdf) Accessed on 25/01/2010.

DEC (2007a) DEC Fauna Habitat Notes.Chuditch. February 2007. Department of Environment and Conservation, Western Australia. [www.naturebase.net/component/option,com\\_docman/task.../mode,view](http://www.naturebase.net/component/option,com_docman/task.../mode,view) Accessed on 25/01/2010.

DEC (2007b) DEC Fauna Habitat Notes.Quenda. February 2007. Department of Environment and Conservation, Western Australia. [www.naturebase.net/component/option,com\\_docman/task.../mode,view](http://www.naturebase.net/component/option,com_docman/task.../mode,view) Accessed on 25/01/2010.

DEC (2009a) Site Inspection Report for Clearing Permit Application CPS 32321, Construction of house, workshop, horse stables, horse paddocks and arena). Site inspection undertaken 17/08/2009. Department of Environment and Conservation, Western Australia (TRIM Ref: DOC96929).

DEC (2009b) Flora advice for land clearing application. Advice to Assessing Officer, Native Vegetation Assessment Branch, received 07/09/2009. Department of Environment and Conservation, Western Australia (TRM DOC96910).

DEC (2009c) Flora advice for land clearing application. Advice to Assessing Officer, Native Vegetation Assessment Branch, received 15/09/2009. Department of Environment and Conservation, Western Australia (TRM DOC97779).

DEC (2009d) Fauna advice for land clearing application. Advice to Assessing Officer, Native Vegetation Assessment Branch, received 21/09/2009. Department of Environment and Conservation, Western Australia (TRIM 98606).

DEC (2009e) Flora advice for land clearing application. Advice to Assessing Officer, Native Vegetation Assessment Branch, received 23/10/2009. Department of Environment and Conservation, Western Australia (TRIM DOC102464).

DEC (2010a) Fauna advice for land clearing application. Advice to Assessing Officer, Native Vegetation Assessment Branch, received 22/01/2010. Department of Environment and Conservation, Western Australia (TRIM DOC116502).

DEC (2010b) Fauna advice for land clearing application. Advice to Assessing Officer, Native Vegetation Assessment Branch, received 22/01/2010. Department of Environment and Conservation, Western Australia (TRIM DOC116516).

Department of Agriculture (2005) AgMaps Land Manager CD-rom for the Shires of Serpentine-Jarrahdale, Kwinana, Rockingham, Mandurah, Murray, Boddington, Waroona and Harvey. Department of Agriculture, Western Australia. ISSN: 1448-235X.

Department of Environment (2009) Landscape Volume 25 Number 2 Summer 2009-10: Spotted surprise the Chuditch comeback pages 9-13, Western Australia.

Department of Water (2009) Advice on Nutrient and Irrigation Management Plan for Lot 402; Department of Water. TRIM Ref: DOC96740.

Department of Water (2010) Advice on water licence application for Lot 402 Bodeman Road, Wandii; Department of Water. (TRIM Ref: DOC116250).

EPA (2006) Guidance for the Assessment of Environmental Factors - Level of Assessment for Proposals Affecting Natural Areas Within the System 6 Region and Swan Coastal Plain Portion of the System 1 Region. Guidance Statement No 10. Environmental Protection Authority, Western Australia.

Gibson N., Keighery B., Keighery G., Burbidge A. and Lyons M. (1994). A Floristic Survey of the Southern Swan Coastal Plain. Western Australian Department of Conservation and Land Management and the Western Australian Conservation Council.

Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.

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. (2007). Adapted from: 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. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.

Town of Kwinana (2010) Advice on Equine Premises licence for Lot 402 Bodeman Road, Wandi, Town of Kwinana (TRIM ref: DOC117153).

## 6. Glossary

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
CALM	Department of Conservation and Land Management (now BCS)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment (now DEC)
DMP	Department of Mines and Petroleum (ex DoIR)
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DEC)