



## **CLEARING PERMIT**

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

### **PERMIT DETAILS**

Area Permit Number: 5052/1  
File Number: 2011/005917-1  
Duration of Permit: From 10 August 2012 to 10 August 2014

### **PERMIT HOLDER**

Leonard Walter Buckeridge

### **LAND ON WHICH CLEARING IS TO BE DONE**

Lot 459 on Deposited Plan 202741, Baldivis  
Lot 447 on Deposited Plan 202741, Baldivis

### **AUTHORISED ACTIVITY**

The Permit Holder shall not clear more than 2.236 hectares of native vegetation within the area cross hatched yellow on attached Plan 5052/1.

### **CONDITIONS**

Nil.

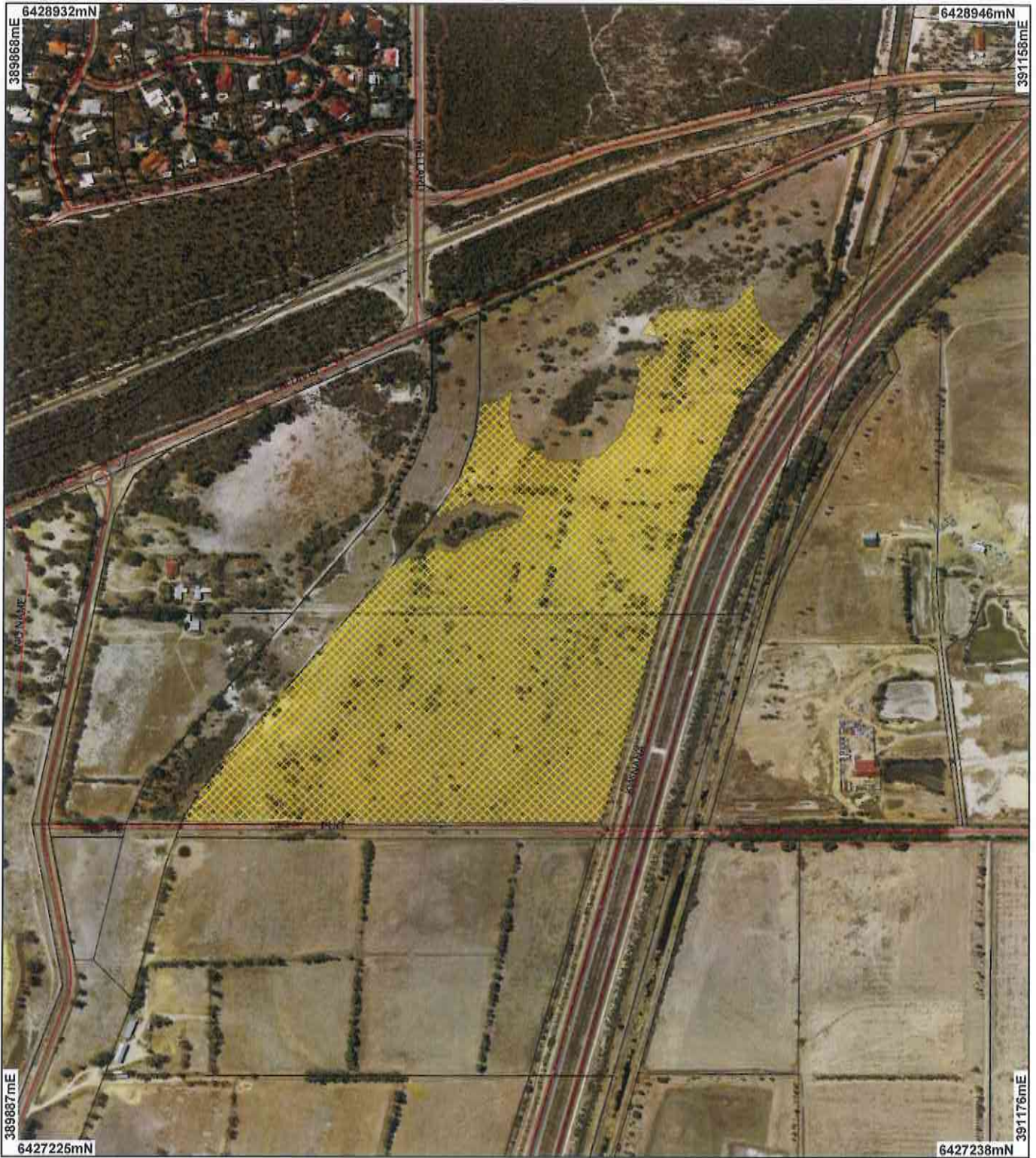
A handwritten signature in black ink, appearing to be "KF", written over a horizontal line.

Kelly Faulkner  
MANAGER  
NATIVE VEGETATION CONSERVATION BRANCH

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

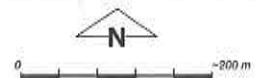
19 July 2012

# Plan 5052/1



## LEGEND

- |   |                             |
|---|-----------------------------|
| Road Centrelines  | <b>Clearing Instruments</b> |
| Cadastre  | Areas Approved to Clear     |
| Perth Metropolitan Central<br>15cm Orthomosaic - Landgate<br>2011 |                             |



Scale 1:7564  
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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

K Faulkner Date 19/7/12

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.



Department of  
Environment and Conservation

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## 1. Application details

### 1.1. Permit application details

Permit application No.: 5052/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Leonard Walter Buckeridge

### 1.3. Property details

Property: LOT 447 ON PLAN 202741 (Lot No. 447 TELEPHONE BALDIVIS 6171)  
LOT 459 ON PLAN 202741 (House No. 21 BALDIVIS BALDIVIS 6171)  
Local Government Area: City of Rockingham

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2.236		Mechanical Removal	Stockpile / Bulk earthworks

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 19 July 2012

## 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
The mapped Beard vegetation association 968 is described as Medium woodland; jarrah, marri & wandoo (Shepherd et al, 2001).	This application proposes to clear 2.236 hectares of native vegetation (including 235 native trees) for the purpose of filling the site for future development.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	The description and condition of the vegetation was determined via a Department of Environment and Conservation (DEC) site inspection (DEC, 2011a) and aerial imagery (Perth Metro Central 2011).
The mapped Heddle Vegetation Complex: Serpentine River Complex 'Closed scrub and fringing woodlands (Heddle and Havel, 1980).	The area under application is in a completely degraded (Keighery, 1994) condition. It has been parkland cleared and consists of scattered <i>Melaleuca</i> sp. (mainly <i>Melaleuca preissiana</i> ) over weeds (DEC, 2011a).		
The mapped Heddle Vegetation Complex: Serpentine River Complex 'Closed scrub and fringing woodlands (Heddle and Havel, 1980).			

## 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

This application proposes to clear up to 2.236 hectares of native vegetation (including 235 native trees) within Lots 447 and 459 on Plan 202741, Baldivis, for the purpose of filling the site in preparation for future development.

The applicant previously applied to clear 3.02 hectares of native vegetation for the same purpose (CPS 4465/1). Approval was required from the City of Rockingham prior to a final decision being made on that clearing application and subsequently the applicant decided to withdraw the clearing permit application until these approvals had been obtained. The preliminary assessment for CPS 4465/1 identified that a 50 metre vegetated buffer to three Resource Enhancement Wetlands on the property would be required. This application (CPS 5052/1) has accounted for these buffers.

The area under application is mapped as a Multiple Use (MU) wetland, has been historically been parkland cleared and is in a completely degraded (Keighery, 1994) condition (DEC 2011a, Emerge Associates, 2012). The application area consists of scattered *Melaleuca* trees (*Melaleuca teretifolia*, *M. raphiophylla* and *M. preissiana*) over pasture grasses and weeds (DEC, 2011a, Emerge Associates, 2012).

A level 2 flora and vegetation survey was conducted in May and September 2011 and the application area was reported to contain limited species diversity and habitat for fauna with 55 flora species recorded (Emerge Associates, 2012). A total of 75 per cent of the total flora taxa recorded during these surveys were introduced weed species (Emerge Associates, 2012).

Given the above, the proposed clearing does not comprise high biological diversity and is not likely to be at variance to this Principle.

**Methodology** References:  
DEC (2011a)  
Emerge Associates (2012)

GIS Databases:  
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain  
- SAC Biodatasets - Accessed 18 May 2012

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

Twenty one fauna species of conservation significance have been recorded within the local area (10km radius) including; *Calyptorhynchus banksii subsp. naso* (Forest Red-tailed Black-Cockatoo), *Calyptorhynchus baudinii* (Baudin's Cockatoo), *Calyptorhynchus latirostris* (Carnaby's black cockatoo), *Dasyurus geoffroyi* (Western Quoll) and *Macropus irma* (Western Brush Wallaby) (DEC, 2007- ).

The area under application consists of scattered *Melaleuca teretifolia*, *M. raphiophylla* and *M. preissiana* trees over pasture grasses in a completely degraded (Keighery 1994) condition (DEC 2011a, Emerge Associates (2012).

The mature *Melaleuca* trees located within the application area are likely to provide refuge to some transient birds however the limited clearing of 235 trees is not considered to impact on significant habitat for fauna indigenous to Western Australia, including fauna species of conservation significance (DEC, 2011a).

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

**Methodology** References:  
DEC (2007- )  
DEC (2011a)  
Emerge Associates (2012)

GIS Database:  
- SAC Biodatasets - Accessed 18 May 2012  
- Pre European Vegetation

**(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**

Four rare orchid species have been recorded within the local area (10km radius). These are *Caladenia huegellii* (Grand Spider Orchid), *Diuris micrantha* (Dwarf Bee Orchid), *Diuris purdiei* (Purdie's Donkey Orchid) and *Drakaea elastica* (Glossy-leaved Hammer Orchid).

The area under application has been parkland cleared, is in a completely degraded (Keighery 1994) condition and has been subjected to constant grazing (DEC 2011a). Therefore, the area under application is not likely to support suitable habitat for the abovementioned rare flora.

A level 2 flora and vegetation survey undertaken during May and September 2011 did not identify any rare flora species (Emerge Associates, 2012).

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

**Methodology** References:  
DEC (2011a)  
Emerge Associates (2012)

GIS Databases:  
- SAC Biodatasets - Accessed 18 May 2012

**(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**

The area under application is in a completely degraded (Keighery, 1998) condition consisting of scattered Melaleuca trees over pasture grass (DEC 2011a).

Given the completely degraded (Keighery, 1994) condition, the vegetation under application is not considered to be representative of any threatened ecological communities (TECs).

The 2011 level 2 flora and vegetation survey did not identify any TECs (Emerge Associates, 2012).

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

**Methodology**

References:

DEC (2011a)

Emerge Associates (2012)

Keighery (1994)

GIS Databases:

- SAC Biodatasets - Accessed 18 May 2012

**(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 Swan Coastal Plain Interim Biogeographic Regionalisation of Australia (IBRA) bioregion and within the City of Rockingham. This IBRA bioregion has approximately 39 per cent of its Pre European vegetation extent remaining and the City of Rockingham has 30 per cent of its Pre-European vegetation extent remaining (Shepherd et al, 2011).

The vegetation under application is mapped as Beard Vegetation Association 968 which has approximately 7 per cent of its Pre European extent remaining in the Swan Coastal Plain bioregion (Shepherd et al, 2001).

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). Within constrained areas (i.e. areas of urban development in cities and major towns) on the Swan Coastal Plain, the Greater Bunbury Region Scheme and the Peel Region Scheme, the target for representation of the pre-clearing extent of a particular native vegetation complex is 10 per cent (EPA, 2006a). The area under application is classified as a constrained area on the Swan Coastal Plain.

Vegetation association 968 is described as 'Medium woodland; jarrah, marri & wandoo' (Shepherd et al, 2001). Although Vegetation association 968 does not meet the 10 per cent requirement (7.23 per cent) the vegetation under application is not consistent with this vegetation association given it's completely degraded (Keighery 1994) condition (DEC 2011a). Therefore, no further loss of vegetation type 968 will result from the proposed clearing.

Given this and that the application area does not occur within an extensively cleared area it is not considered for the proposed clearing to be at variance to this Principle.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
<b>IBRA Bioregion*</b>				
Swan Coastal Plain	1 501 209	587 890	39	33
<b>Shire*</b>				
City of Rockingham	26 335	7 977	30	10
<b>Beard Vegetation Association in Bioregion*</b>				
968	136 188	9 850	7.23	15
<b>Hedde Vegetation Complex**</b>				
Serpentine River Complex	19 855	2 103	10.6	

\* Government of Western Australia (2011)

\*\* Hedde and Havel (1980)



**Methodology** References:  
Commonwealth of Australia (2001)  
DEC (2011a)  
EPA (2006a)  
Government of Western Australia (2011)  
Hedde and Havel (1980)  
Keighery (1994)  
Shepherd et al (2001)

GIS Databases:  
- Hedde Vegetation Complexes  
- SAC Biodatasets - Accessed 18 May 2012  
- Pre European 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** **Proposal is at variance to this Principle**

The application area is mapped as a Multiple Use wetland and contains scattered *Melaleuca* sp. (mainly *Melaleuca preissiana*) over weeds in a completely degraded (Keighery 1994) condition (DEC 2011a). Multiple Use wetlands have few important ecological attributes and functions remaining (Water and Rivers Commission, 2001).

As the application area contains wetland depended vegetation (*Melaleuca* trees) and contains a Multiple Use wetland, the vegetation under application is considered to be growing in association with a wetland.

Three Resource Enhancement wetlands are adjacent to the application area and the applicant has committed to retaining a 50 meter buffer around these three wetlands. Buffering a wetland is recognised as an essential component in the protection and maintenance of a wetland's values (Hill et al, 1996). This is particularly important where surrounding land use is changing, which if not managed carefully could lead to loss of wetland values (DEC, 2011b).

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

**Methodology** References:  
DEC (2011a, 2011b)  
Hill et al. (1996)  
Water and Rivers Commission (2001)

GIS Databases:  
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain  
- SAC Biodatasets - Accessed 18 May 2012  
- Pre European Vegetation

**(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 is in a completely degraded (Keighery, 1994) condition and is parkland cleared (DEC 2011a).

The whole application area is mapped as a Multiple Use wetland and was inundated with water at the time of a DEC site inspection 1 August 2011 (DEC, 2011a). The proposed clearing of some large mature trees within this area may increase waterlogging, however this is not likely to lead to appreciable land degradation given the small size of the proposed clearing (235 trees).

This application is therefore not likely to be at variance to this Principle.

**Methodology** References:  
DEC (2011a)  
Keighery (1994)

GIS Databases:  
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain

**(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**

The closest mapped conservation reserve is Leda Nature Reserve which is located north of the application area. Leda Nature Reserve is also mapped as Bush Forever Site 349 (Leda and Adjacent Bushland).

The proposed clearing will not sever any ecological corridors which link Bush Forever Site 349 to other remnant patches of vegetation. The area under application is dissected by a Tramway Reserve, vested with the Shire of Rockingham and is not included in the clearing application.

Considering the above the proposed clearing is not likely to be variance to this Principle.

**Methodology** GIS Databases:  
- Bush Forever  
- DEC 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 Proposal is not likely to be at variance to this Principle**

The groundwater salinity within the application area is mapped as 500-1000 milligrams per litre of Total Dissolved Solids (TDS). This level of groundwater salinity is considered to be marginal. The clearing of 2.236 hectares of completely degraded (Keighery, 1994) vegetation within a footprint area of approximately 25.2 hectares is not likely to have a significant impact on the quality of groundwater in the local area.

The area under application is mapped as a Multiple Use wetland and surface water was observed within the application area during a DEC site inspection (DEC 2011a).

The proposed clearing may increase sedimentation levels in surface water of the Multiple Use wetland mapped within the application area, however the area under application is relatively flat so little surface water will flow offsite. The proposed clearing is therefore is not likely to have a significant impact on the quality of surface water of nearby Resource Enhancement wetland areas.

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

**Methodology** References:  
DEC (2011a)  
Keighery (1994)  
  
GIS Databases:  
- Groundwater Salinity Statewide  
- Topographic Contours, Statewide

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

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

The area under application is mapped as a Multiple Use wetland and was inundated with water at the time of inspection (DEC, 2011a). The proposal to clear 2.236 hectares of native vegetation (including 235 native trees) within this wetland area may increase waterlogging however it is not likely that it will increase the incidence or intensity of flooding given the small size of the proposed clearing.

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

**Methodology** References:  
DEC (2011a)  
  
GIS Databases:  
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain

**Planning instruments, Native Title, Previous EPA decisions or other matters.**

**Comments**

Clearing application CPS 4465/1 was submitted by this applicant in June 2011 but was subsequently withdrawn. This revised clearing application (CPS 5052/1) covers a reduced clearing area and includes a 50m buffer between proposed clearing and the three adjacent Resource Enhancement wetlands (No. 11406).

(Emerge Associates, 2012).

The City of Rockingham (2012) advised that planning approval for the filling of the land was granted on 28 March 2012. The City of Rockingham recommends a 50m buffer between the Resource Enhancement Wetland located near the northern end of the application area, and a fauna survey to determine the presence of foraging habitat for black cockatoos. The vegetation under application is not considered significant habitat for black cockatoos and therefore a fauna survey is not required. The 50m buffer requirement has been addressed in this application.

The proposed scheme amendment for Lots 3 and 4 Zig Zag Road; 459-463, 510-513, 520, 521 and 709 Baldivis Road; 515-518 Sabrina Road and 447 Telephone Land, Baldivis, was referred to the Environmental Protection Authority (EPA) for comment on 26 September 2006. The EPA concluded that the proposed scheme amendment should not be assessed under Part IV Division 3 of the *Environmental Protection Act 1986* (EP Act) but nevertheless provided advice in relation to; wetlands, acid sulphate soils, water management, vegetation and flora, noise, potential land use conflict, site contamination and high pressure natural gas pipeline (EPA, 2006b).

In regards to vegetation and Flora the EPA has stated that:

- Aerial photography of the site indicates that the subject land is sparsely vegetated. The proponent has previously advised that existing vegetation of good condition will be retained where possible. As discussed, the subject land is located within the Peel Harvey Catchment where retaining areas of native vegetation are very important for protecting water quality and biodiversity. Under the provisions of the Statement of Planning Policy No 2.1 'The Peel-Harvey Coastal Plain Catchment, the proponent is encouraged to retain all areas of native vegetation and to protect them from further degradation'.
- All native vegetation should be preserved so far as practical during and after clearing for site works and services to accommodate the proposed subsequent urban development. Measures should be taken to ensure the identification, protection and management of any significant vegetation on site worthy of retention prior to the commencement of site works.'

It is considered for the application to clear to be consistent with this advice.

The applicant has advised that the increase in ground level due to fill will increase surface water pooling in the lower lying areas; Tramway Reserve, the Resource Enhancement wetland No. 14406 and areas of the Multiple Use wetland No. 15785 (Emerge Associates, 2012).

The area under application is zoned as Rural under the Metropolitan Regional Scheme.

The area under application falls with the Stakehill Groundwater Area which is an area proclaimed under the *Rights in Water and Irrigation Act 1914*.

No public submissions have been received.

#### Methodology

References:

City of Rockingham (2011)  
Emerge Associates (2012)  
EPA (2006b)

GIS Databases:

- RIWI Act, Groundwater Areas
- Town Planning Scheme Zones

#### 4. References

- City of Rockingham (2012) Submission for CPS 5052/1- Lot 447 Telephone Land and Lot 459 Baldivis Road, Baldivis, received 8 June 2012, City of Rockingham, WA.
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DEC (2011a) Site Inspection Report for Clearing Permit Application CPS 4465, Lots 447, 459 and 709 on Plan 202741, Baldivis. Site inspection undertaken 1/08/2011. Department of Environment and Conservation, Western Australia (DEC Ref: A418999).
- DEC (2011b) Department of Environment and Conservation's website, Wetland Management in WA <http://www.dec.wa.gov.au/content/view/full/3503/1936/>. Accessed 11 August 2011.
- Emerge Associates (2012) Supporting Information for clearing permit CPS 5052/1, Lot 447 Telephone Road and Lot 459 Baldivis Road, Baldivis, Emerge Associates, Subiaco, Western Australia (DEC REF A502558).
- 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.
- Government of Western Australia (2011); 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, Perth.
- 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.

Hill, A.L., Semenuik, C. A, Semenuik, V. Del Marco, A. (1996) Wetlands of the Swan Coastal Plain. Volume 2b, Wetland mapping, classification and evaluation. Wetland Atlas. WRC and DEP. Perth WA.

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.

WAPC (2005) Guideline for the Determination of Wetland Buffer Requirements. Prepared for the Department for Planning and Infrastructure on behalf of the Western Australian Planning Commission by Essential Environmental Services. December 2005.

Water and Rivers Commission (2001) Position Statement: Wetlands, Water and Rivers Commission, Perth.

## 5. 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
DoIR	Department of Industry and Resources
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)