



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 5525/1
Permit Holder:	City of Busselton and Shire of Augusta – Margaret River
Duration of Permit:	31 May 2014 – 31 May 2019

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

PART I – CLEARING AUTHORISED

1. Purpose for which clearing may be done

Clearing for the purposes of developing the former Busselton to Flinders Bay Railway into a 109 kilometre recreational and interpretation trail.

2. Land on which clearing is to be done

Geographe Bay Road reserve PINS 11451134 and 11906236 (Busselton and West Busselton 6280)
Mill Road reserve PINS 11340806 and 11340784 (West Busselton 6280)
Bussel Highway road reserve PINS 11340798, 11340794 and 11340795 (West Busselton 6280)
Fairway Drive road reserve PINS 11340779, 11340767 and 11340771 (West Busselton 6280)
Spinifex Court road reserve PIN 1166871 (West Busselton 6280)
Busselton Bypass road reserve PIN 11437673 (Vasse 6280)
Bussel Highway road reserve PINS 11733996 and 11437671 (Vasse 6280)
Yallingup Siding Road reserve PIN 11469298 (Yallingup Siding 6282)
Blythe Road reserve PIN 11469299 (Yallingup Siding 6282)
Metricup – Yelverton Road reserve PIN 11469318 (Metricup 6280)
Harmans Mill Road reserve PIN 11476576 (Metricup 6280)
Miamup Road reserve PIN 11670460 (Cowaramup 6284)
Cowaramup Bay Road reserve PIN 11476658 (Cowaramup 6284)
Burnside Road reserve PIN 11476635 (Bramley 6285)
Caves Road reserve PIN 11583052 (Margaret River 6285)
Ashton Street road reserve PIN 11424581 (Margaret River 6285)
Tunbridge Road reserve PIN 11424560 (Margaret River 6285)
Witchcliffe Road reserve PIN 11424565 (Margaret River 6285)
Railway Terrace road reserve PINS 1173969, 1173970 and 1170968 (Margaret River 6285)
Boodjidup Road reserve PIN 1170967 (Margaret River 6285)
Gnarawary Road reserve PIN 11601611 (Margaret River 6285)
Rowe Road reserve PIN 11478032 (Witchcliffe 6286)
Redgate Road reserve PIN 11408179 (Witchcliffe 6286)
Calgardup Road reserve PIN 11602905 (Forest Grove 6286)
Harrison Road reserve PIN 1186545 (Forest Grove 6286)
Forest Grove Road reserve PIN 11602689 (Forest Grove 6286)
Caves Road reserve PIN 11602095 (Boranup 6286)
Boulter Road reserve PINS 11602581, 11602582, 11602583, 11602584, 11602585, and 11602586 (Boranup 6286)
Un-named road reserves PINS 11906216, 11906213, 11906242, 11849122, 11340768, 12071160, 1198485, 11845734, 1169254, 11621027, 11906352, 11469316, 11469314, 11469312, 11476572, 11724137, 11476659, 11476660, 11476643, 11476636, 1173971, 11478034, 11478033, 11602905, 11602625, 11602580 (Busselton, West Busselton, Vasse, Metricup 6280, Yallingup Siding 6282, Cowaramup 6284, Bramley and Margaret River 6285, Witchcliffe, Boranup and Forest Grove 6286).

Lots 4539 and 4540 on Plan 211912 (West Busselton 6280)
Lot 300 on Plan 4875 (West Busselton 6280)
Lots 84 and 4789 on Plan 14463 (West Busselton 6280)
Lot 4764 on Diagram 61721 (West Busselton 6280)
Lot 502 on Plan 62966 (West Busselton 6280)
Lot 422 on Plan 189704 (West Busselton 6280)
Sussex location 4561 (West Busselton 6280)
Lots 305, 310 and 311 on Plan 38818 (West Busselton 6280)
Lots 5229 and 5230 on Plan 194433 (West Busselton 6280)
Lot 5241 on Plan 220465 (West Busselton 6280)
Lot 5020 on Plan 15296 (Busselton Vasse 6280)
Lot 5246 on Plan 194430 (Vasse 6280)
Lot 5251 on Plan 220466 (Vasse 6280)
Lots 501, 504 and 505 on Plan 57391 (Vasse 6280)
Lot 555 on Plan 65624 (Vasse 6280)
Lot 9001 on Plan 400047 (Vasse 6280)
Lot 502 on Plan 55430 (Marybrook 6280)
Lots 503 and 504 on Plan 63874 (Marybrook 6280)
Lot 500 on Plan 55430 (Marybrook 6280)
Lot 300 on Plan 47826 (Marybrook 6280)
Lot 504 on Plan 69597 (Anniebrook 6280)
Lot 21 on Plan 4880 (Anniebrook 6280)
Lot 503 on Plan 69596 (Anniebrook 6280)
Lots 5148 and 5165 on Plan 220007 (Yallingup Siding 6282)
Lots 4696 and 4697 on Plan 240160 (Yallingup Siding 6282 and Metricup 6280)
Lots 4874, 4879 and 4892 on Plan 4885 (Yelverton 6280)
Lot 4993 on Plan 192337 (Metricup 6280)
Lot 4631 on Plan 31690 (Metricup 6280)
Lot 303 on Plan 42633 (Metricup 6280)
Lot 350 on Plan 50851 (Cowaramup 6284)
Lot 504 on Plan 60360 (Cowaramup 6284)
Lot 500 on Plan 56225 (Cowaramup 6284)
Lots 505 and 506 on Plan 59008 (Cowaramup 6284)
Lot 5266 on Plan 220451 (Cowaramup 6284)
Lot 4984 on Plan 243172 (Bramley 6285)
Lot 204 on Plan 240262 (Margaret River 6285)
unallocated Crown land PINS 526711 and 526886 (Margaret River 6285)
Water Feature PIN 11843706 (Margaret River 6285)
Lot 179 on Plan 4893 (Margaret River 6285)
Lot 261 on Plan 192821 (Margaret River 6285)
Lot 297 on Plan 36399 (Margaret River 6285)
Lot 135 on Plan 211917 (Margaret River 6285)
Lot 194 on Plan 215414 (Margaret River 6285)
Lot 4643 on Plan 195471 (Margaret River 6285)
Lot 4878 on Plan 4894 (Margaret River 6285)
Lot 4882 and 5436 on Plan 27433 (Margaret River 6285)
Lot 4885 on Plan 189634 (Witchcliffe 6286)
Lot 300 on Plan 48548 (Witchcliffe 6286)
Lot 5459 on Plan 27434 (Witchcliffe 6286)
Lot 5437 on Plan 27321 (Witchcliffe 6286)
Lot 53 on Plan 91807 (Witchcliffe 6286)
Lot 4659 on Plan 91199 (Witchcliffe 6286)
Lot 5438 on Plan 27432 (Witchcliffe 6286)
Lots 5439, 5440 and 5460 on Plan 27429 (Forest Grove 6286)
Lot 4948 on Plan 92109 (Boranup 6286)

3. Area of Clearing

The Permit Holder must not clear more than 2.74 hectares of native vegetation within the combined areas shaded yellow on attached Plan 5525/1(a), Plan 5525/1(b), Plan 5525/1(c), Plan 5525/1(d), Plan 5525/1(e), Plan 5525/1(f), Plan 5525/1(g), Plan 5525/1(h), Plan 5525/1(i), Plan 5525/1(j), Plan 5525/1(k), Plan 5525/1(l), Plan 5525/1(m), Plan 5525/1(n), Plan 5525/1(o), Plan 5525/1(p), Plan 5525/1(q) Plan 5525/1(r), Plan 5525/1(s), Plan 5525/1(t), Plan 5525/1(u) and Plan 5525/1(v).

4. Application

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

PART II – MANAGEMENT CONDITIONS

5. Avoid, minimise etc clearing

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:

- (a) avoid the clearing of native vegetation;
- (b) minimise the amount of native vegetation to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

6. 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.

7. Construction Environmental Management Plan

- (a) The Permit Holder must prepare a Construction Environmental Management Plan.
- (b) The Construction Environmental Management Plan must be approved by the CEO prior to clearing commencing.
- (c) The Permit Holder must implement the approved Construction Environmental Management Plan.

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.



M Warnock
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

1 May 2014

CPS 5525/1, 1 May 2014

Plan 5525/1 (a)



LEGEND

- Local Government Authorities
- Road Centrelines
- Clearing Instruments
- Areas Approved to Clear
- Busselton 50cm Orthomosaic - Landgate 2007

* Project Data is denoted by asterisk.
 This data has not been quality assured.
 Please contact map author for details.



0 500 m

Scale 1:17500
 Approximate when reproduced at A4

Geometric Datum Australia 1994

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

M. Waincock Date 1/5/14

M. Waincock

Officer with delegated authority under Section 201 of the Environmental Protection Act 1986

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 Department of Environment Regulation

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Plan 5525/1 (b)



LEGEND

- Local Government Authorities
- Road Centrelines
- Clearing Instruments
- Areas Approved to Clear
- Busselton 30cm Orthomosaic - Landgate 2007

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Scale 1:17498
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Geocentric Datum Australia 1994

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M. Waindick Date 1/5/14

Matt Waindick

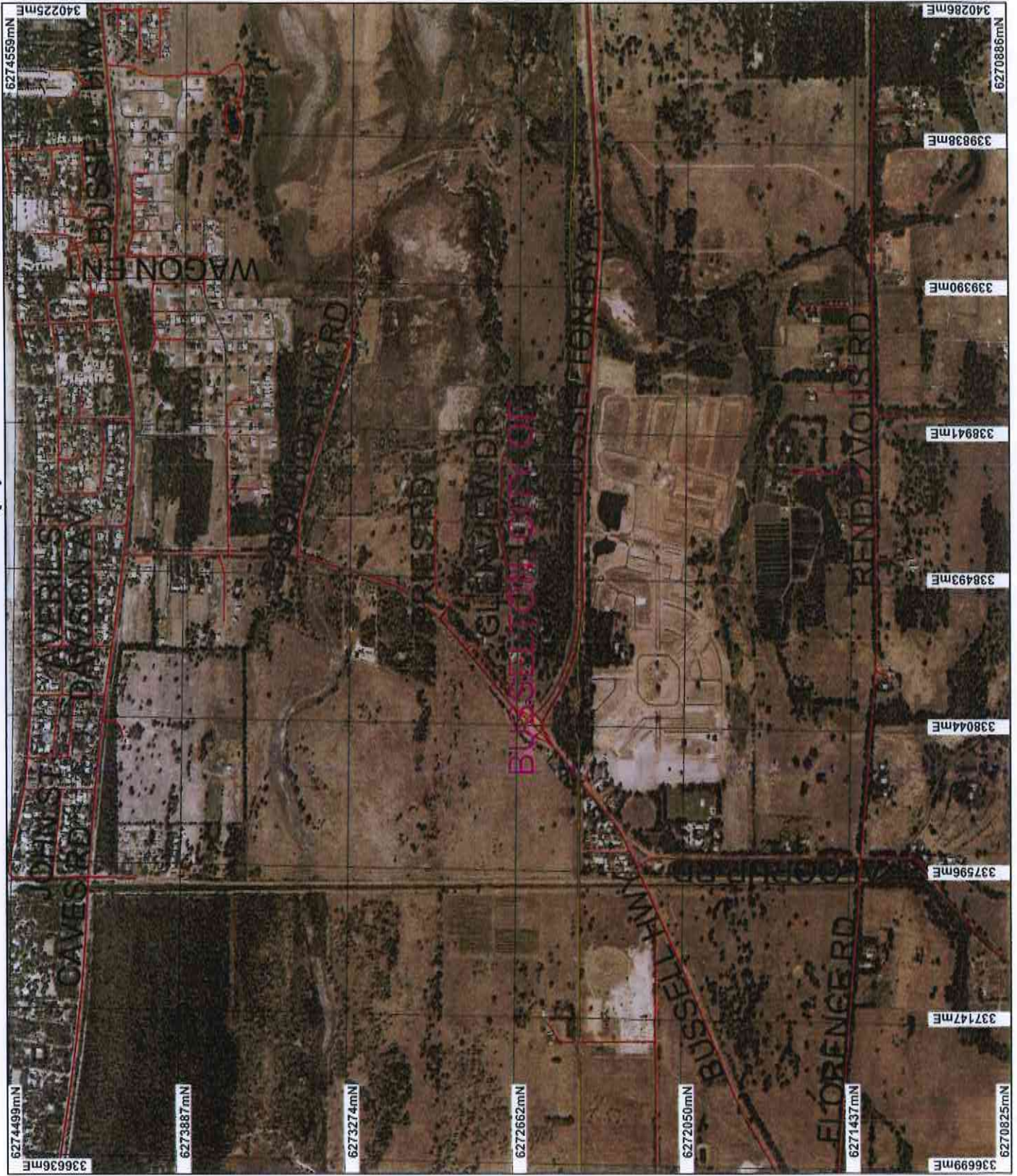
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 Department of Environment Regulation
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Plan 5525/1 (c)



LEGEND

- Local Government Authorities
- Road Centrelines
- Clearing Instruments
- Areas Approved in Clear
- Bussetton 50cm Orthomosaic - Landgate 2007

* Project Date is denoted by asterisk.
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 Please contact map author for details.



Scale 1:17459
 (Approximate when reproduced at A4)
 Geocentric Datum Australia 1994
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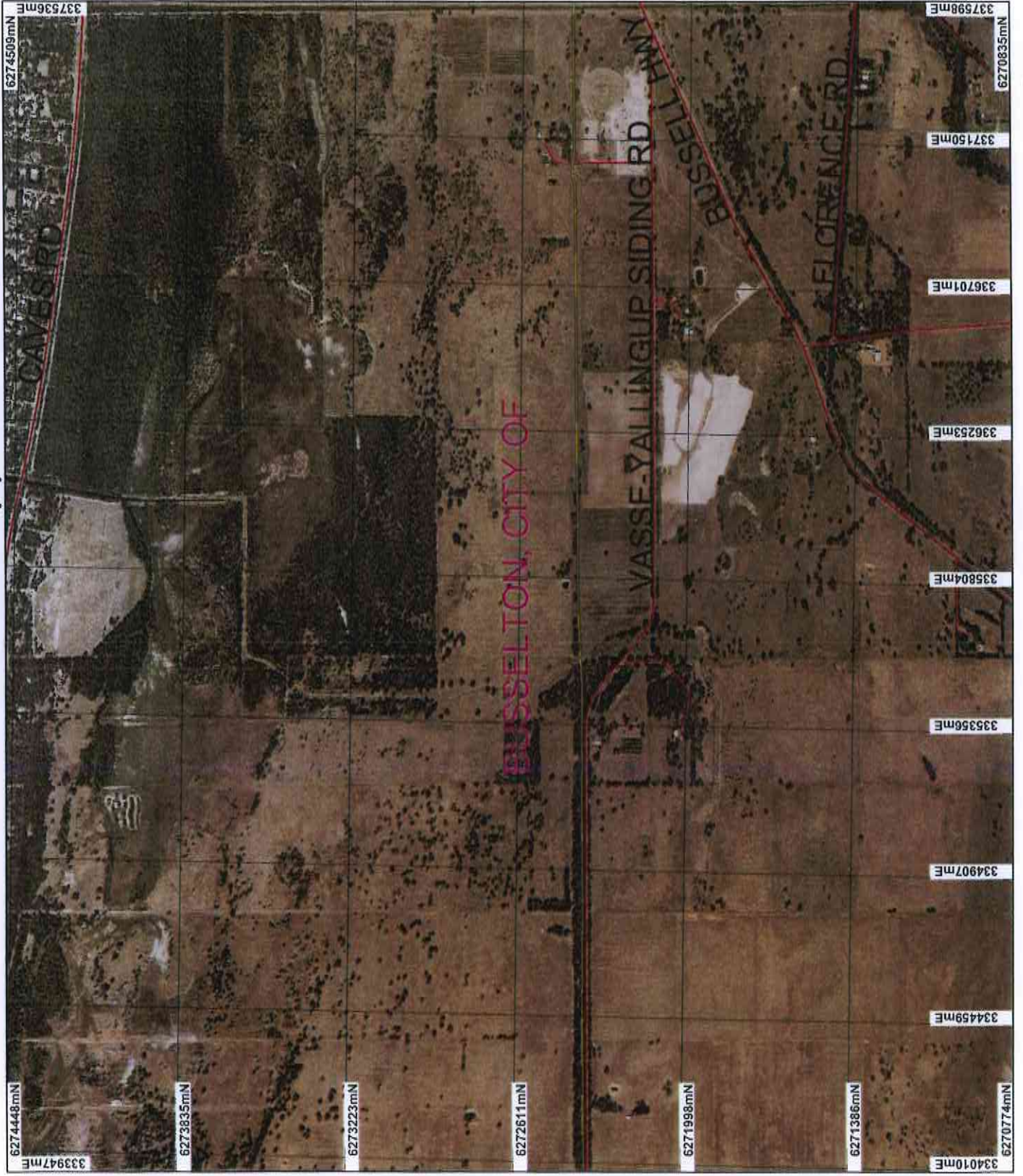
M. Waincock Date 1/5/16
 Melt Waincock

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986
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 Department of Environment Regulation
 WGL Code: 000191 2002

Plan 5525/1 (d)



LEGEND

- Local Government Authorities
- Road Centrelines
- Clearing Instruments
- Areas Approved to Clear
- Busselton 50cm Orthomosaic - Landgate 2007

* Project Data is denoted by asterisk
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 Please contact map author for details.



0 500 m

Scale 1:17499

(Approximate when reproposed 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. Wernock Date 1/5/14

Min. Wernock

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

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Government of Western Australia
 Department of Environment Regulation

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Plan 5525/1 (e)



LEGEND

- Local Government Authorities
- Road Centrelines
- Clearing Instruments
- Areas Approved to Clear
- Busselton 50cm Orthomosaic - Landgate 2007

* Project Date is denoted by asterisk.
This date has not been quality assured.
Please contact map author for details.



0 625 m

Scale 1:27741

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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distortion or measurement inaccuracies.

Matt Wambo Date **1/5/14**

Matt Wambo

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

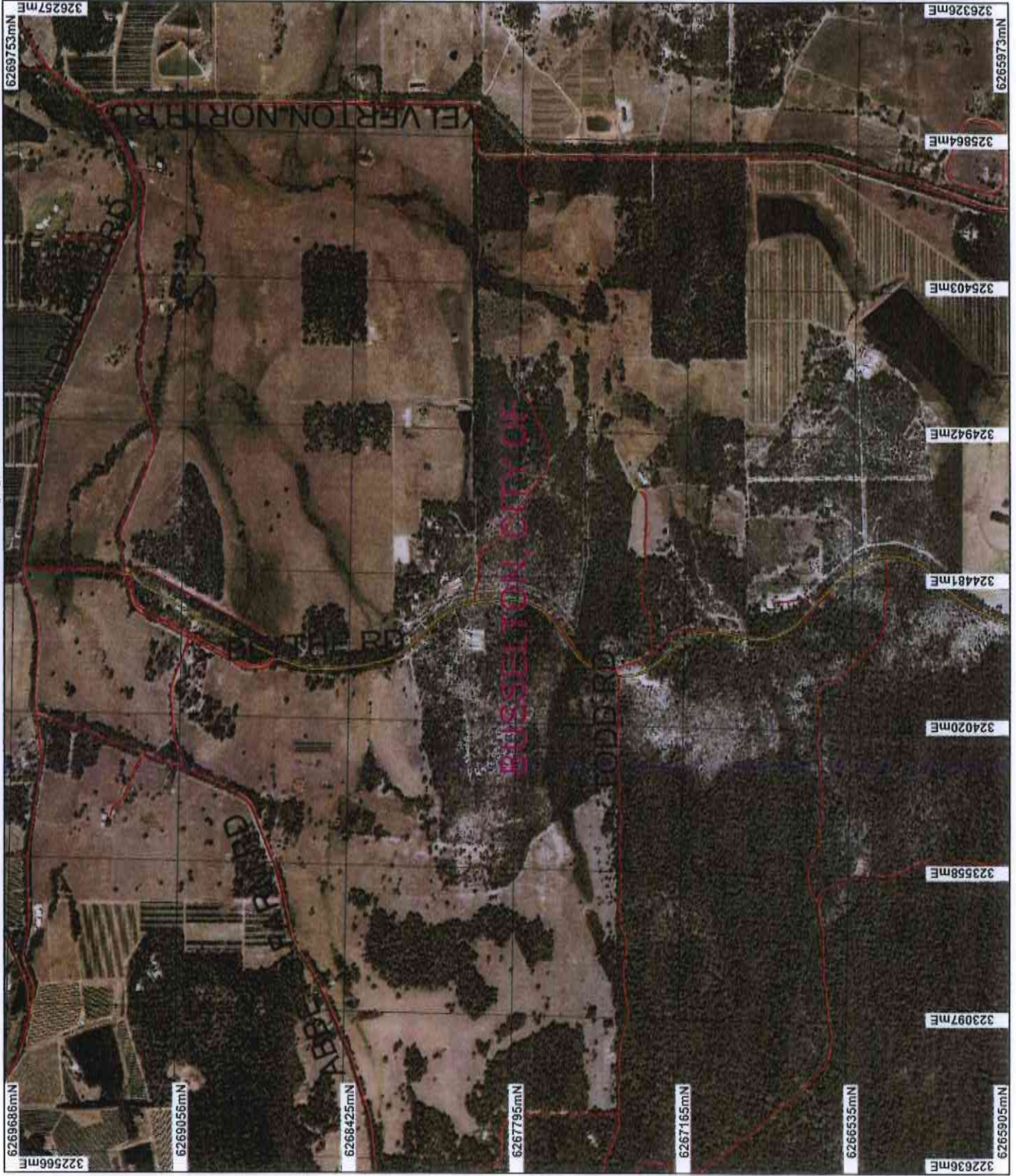
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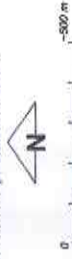
Plan 5525/1 (f)



LEGEND

- Local Government Authorities
- Road Centrelines
- Clearing Instruments
- Areas Approved in Clear
- Busseton 50cm Orthomosaic - Landgate 2007

* Project Data is denoted by asterisk.
 This data has not been quality assured.
 Please contact map author for details.



Scale 1:18000

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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M. Waincock Date 11/5/14

Mel Waincock

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Plan 5525/1 (g)



LEGEND

- Local Government Authorities
- Road Centrelines
- Clearing Instruments
- Areas Approved to Clear
- Bussetton 50cm Orthomosaic - Landgate 2007

* Project Data is obtained by asterisk.
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Please contact map author for details.



Scale 1:17997
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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Handwritten signature Date 15/14

Matt Wernock

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

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Department of Environment Regulation
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Plan 5525/1 (h)



LEGEND

- Local Government Authorities
- Road Centrelines
- Clearing Instruments
- Areas Approved to Clear
- Busselton 50cm Orthomosaic - Landgate 2007

* Project Data is denoted by asterisk.
This data has not been quality assured.
Please contact map author for details.



0 100 200 300 m

Scale 1:17995

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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projected. This may result in geometric
distortion or measurement inaccuracies.

Matt Warnock Date 1/5/14

Matt Warnock

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

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by the agency acronym in the legend.



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Department of Environment Regulation

WA Clearing Code 2002

Plan 5525/1 (i)



LEGEND

- Local Government Authorities
- Road Centrelines
- Clearing Instruments
- Areas Approved to Clear
- Bussetton 50cm Orthomosaic - Landgate 2007

* Project Data is denoted by asterisk
 This data has not been quality assured.
 Please contact map author for details.



Scale 1:77992
 Map created with AutoCAD at A4
 Geocentric Datum: Australia 1994
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M. M. M. M.
 Date 1/5/14

Matt Marmock
 Officer with delegated authority under Section 20 of the Environmental Protection Act 1986
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 WA, Perth, Copyright 2002

Plan 5525/1 (j)



LEGEND

- Local Government Authorities
- Road Centrelines
- Clearing Instruments
- Areas Approved to Clear
- Busselton 50cm Orthomosaic - Landgate 2007

* Project Data is denoted by asterisk.
This data has not been quality assured.
Please contact map author for details.



0 500 m

Scale 1:17990

(Representations when reproduced at A4)

Geocentric Datum Australia 1984

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

Matt Wilcock Date **15/14**

Matt Wilcock

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

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Department of Environment Regulation

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Plan 5525/1 (k)



LEGEND

- Local Government Authorities
- Road Centrelines
- Clearing Instruments
- Areas Approved to Clear
- Busselton 50cm Orthomosaic - Landgate 2007

* Project Data is denoted by asterisk
 This data has not been quality assured.
 Please contact map author for details.



0 500 m

Scale 1:17987

(Approximate when digitized @ A4)

Geocentric Datum Australia 1994

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awc Date 1/5/14

Matt Waincock

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 Department of Environment Regulation

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Plan 5525/1 (I)



LEGEND

- Local Government Authorities
- Road Centrelines
- Clearing Instruments
- Areas Approved to Clear
- Busselton 50cm Orthomosaic - Landgate 2007

* Project Data is denoted by asterisk
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 Please contact map author for details.



0 500 m

Scale 1:17984
 (Agreement when reproposed at A4)

Geocentric Datum Australia 1994

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Matt Warrack Date 1/5/14

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

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 Department of Environment Regulation
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Plan 5525/1 (m)



LEGEND

- Local Government Authorities
- Road Centrelines
- Clearing Instruments
- Areas Approved to Clear
- Bussellton 50cm Orthomosaic - Landgate 2007

* Project Data is denoted by asterisk.
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 Please contact map author for details.



Scale 1:7982
 Maximum when reproducible at A4
 Geocentric Datum Australia 1994
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audited Date 1/5/14

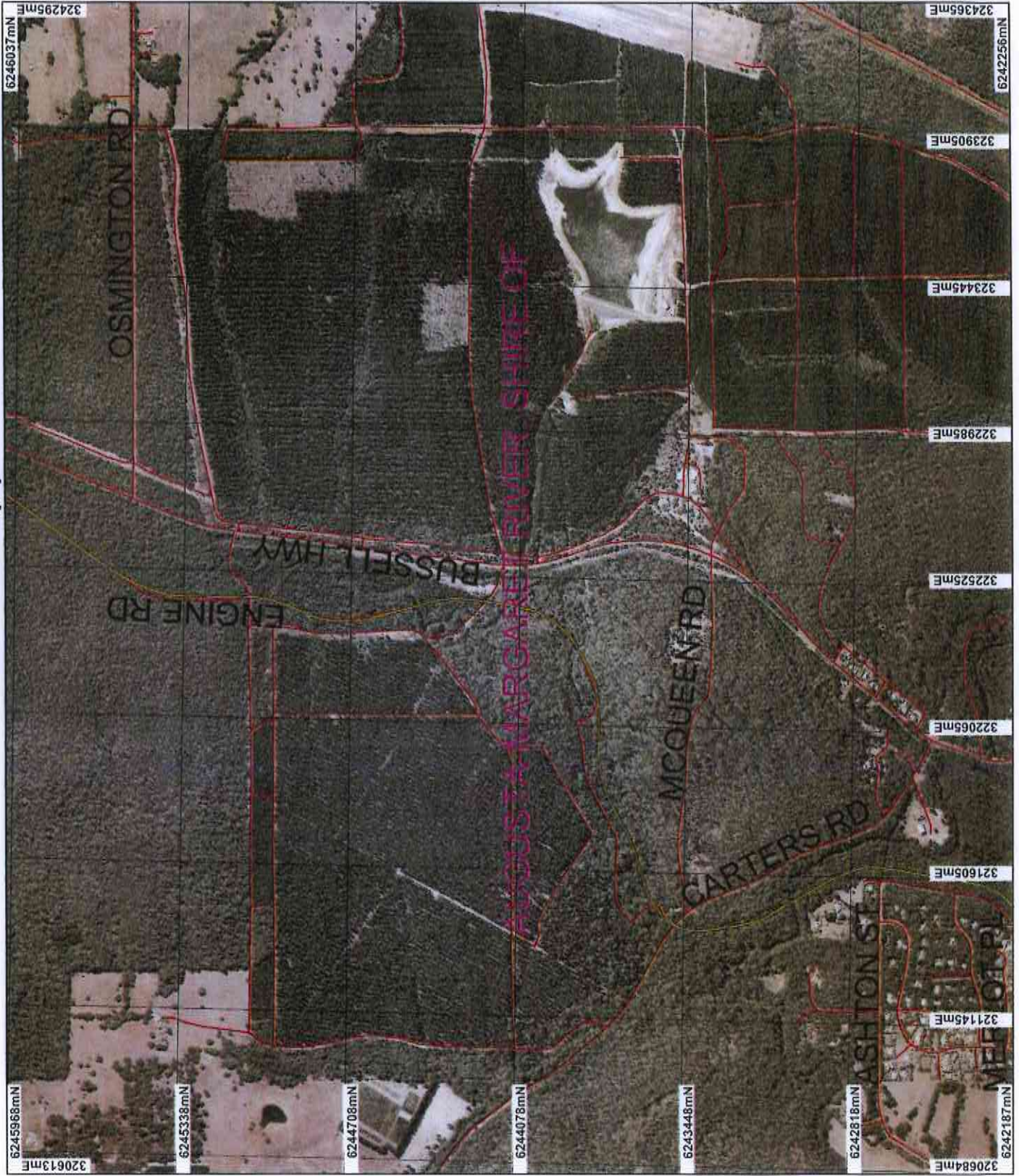
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Plan 5525/1 (n)



LEGEND

- Local Government Authorities
- Road Centrelines
- Clearing Instruments
- Areas Approved to Clear
- Busseillon 50cm Orthomosaic - Landgate 2007

* Project Data is denoted by asterisk.
 This data has not been quality assured.
 Please contact map author for details.



Scale 1:17979
 (Approximate when reproduced at A4)

Geocentric Datum Australia 1984

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Murphy Date 1/5/14
 Matt Waincock

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 Department of Environment Regulation
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Plan 5525/1 (o)



LEGEND

- Local Government Authorities
- Road Centrelines
- Clearing Instruments
- Areas Approved to Clear
- Busselton 50cm Orthomosaic - Landgate 2007

* Project Data is denoted by asterisk.
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Please contact map author for details.



0 500m

Scale 1:17976

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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accoland Date: 1/5/14

Mark Waincock

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

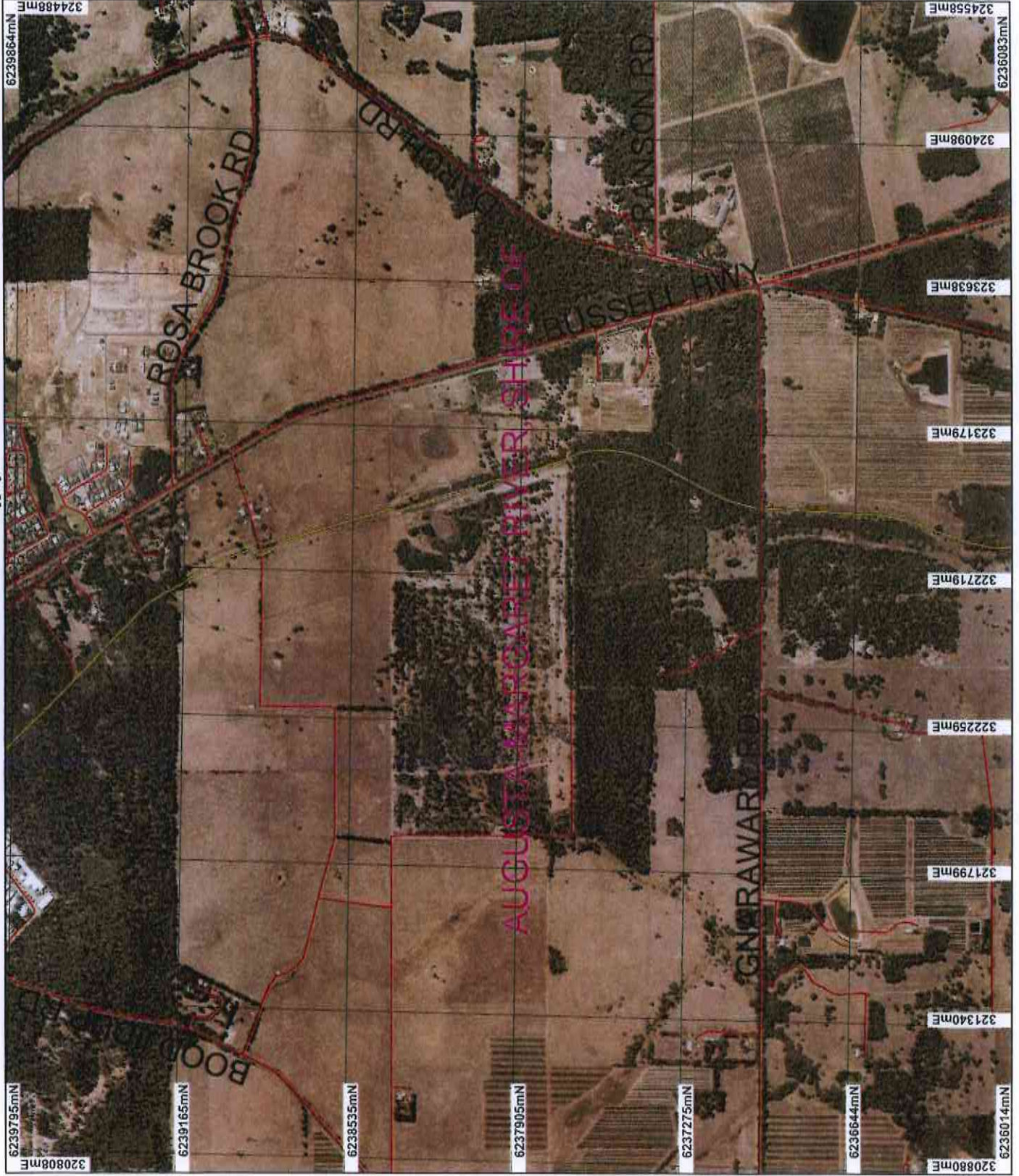
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Plan 5525/1 (p)



LEGEND

- Local Government Authorities
- Road Centrelines
- Clearing Instruments
- Areas Approved to Clear
- Busseton 50cm Orthomosaic - Landgate 2007

* Project Data is denoted by asterisk
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 Please contact map author for details.



0 500 m

Scale 1:17974

(Approximate when reproduced at A1)

Geocentric Datum Australia 1994

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M. Wainwright Date 15/1/24

Matt Wainwright

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 Department of Environment Regulation

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Plan 5525/1 (q)



LEGEND

- Local Government Authorities
- Road Centrelines
- Clearing Instruments
- Areas Approved to Clear
- Laserwin 50cm Orthomosaic - Landgate 2004

* Project Date is denoted by asterisk.
 This data has not been quality assured.
 Please contact map author for details.



0 500 m

Scale 1:17971

Approximate when reproduced at A4

Geocentric Datum Australia 1994

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Handwritten signature Date 1/5/14

Man Waincock

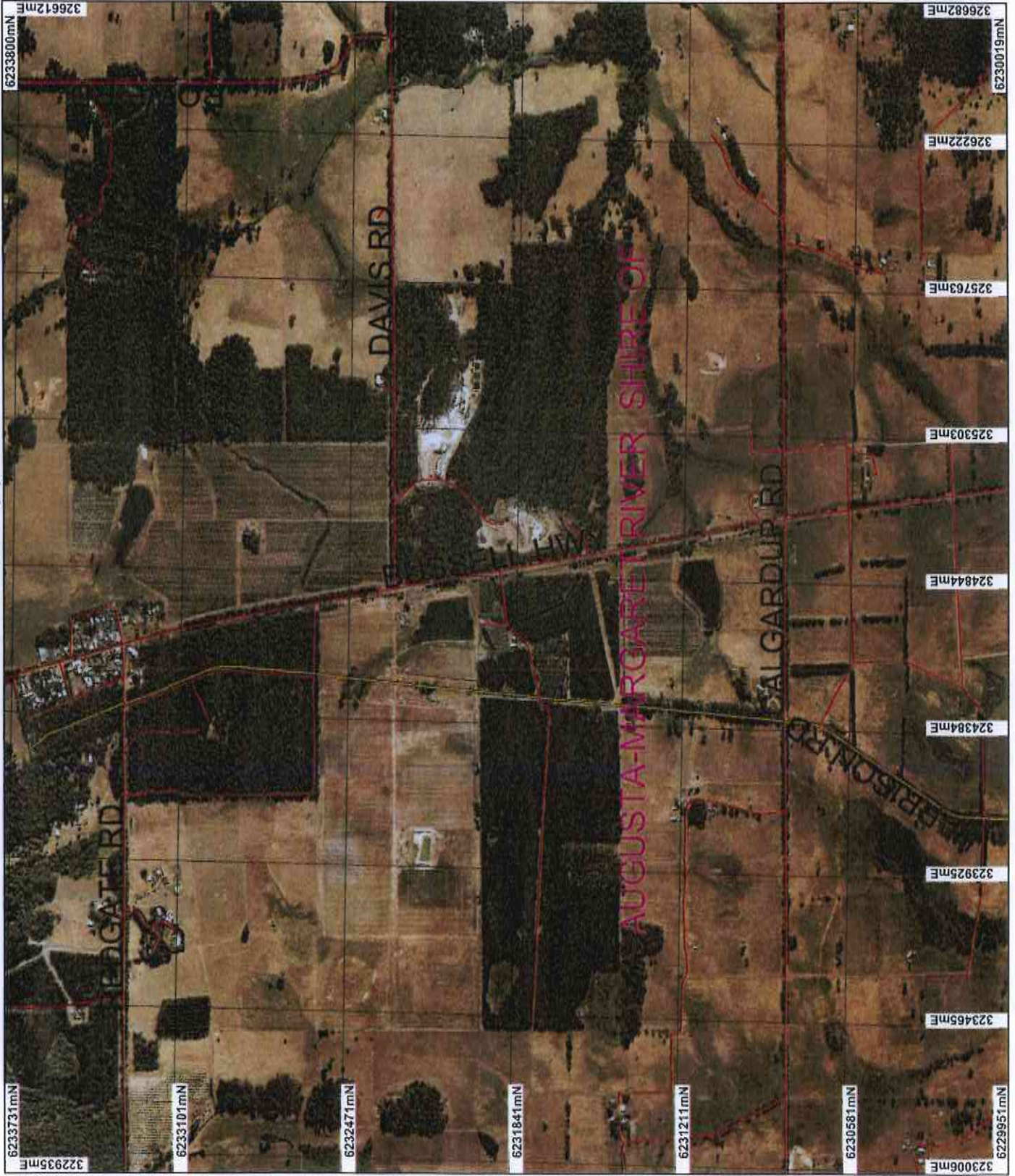
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 Department of Environment Regulation
 WA Town Copyright 2002

Plan 5525/1 (r)



LEGEND

- Local Government Authorities
- Road Centrelines
- Clearing Instruments
- Areas Approved to Clear
- Leaswin 50cm Orthomosaic - Landgate 2004

* Project Data is denoted by asterisk.
This data has not been quality assured.
Please contact map author for details.



0 500 m

Scale 1:17968

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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Amund Date 1/5/14

Mich Wainock

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

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Government of Western Australia
Department of Environment Regulation

WA Govt: Coag/9/1/2002

Plan 5525/1 (s)



LEGEND

- Local Government Authorities
- Road Centrelines
- Clearing Instruments
- Areas Approved to Clear
- Leaswin 50cm Orthomosaic - Landgate 2004

* Project Data is denoted by asterisk.
This data has not been quality assured.
Please contact map author for details.



Scale 1:17965
(Approximate when reproduced at A4)
Geocentric Datum Australia 1994
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Mitchell Date 1/5/14
Matt Wernock

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986
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Plan 5525/1 (t)



LEGEND

- Local Government Authorities
- Road Centrelines
- Clearing Instruments
- Areas Approved to Clear
- Leeuwin 50cm Orthomosaic - Landgate 2004

* Project Data is denoted by asterisk.
 This data has not been quality assured.
 Please contact map author for details.



Scale 1:17963
 (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.

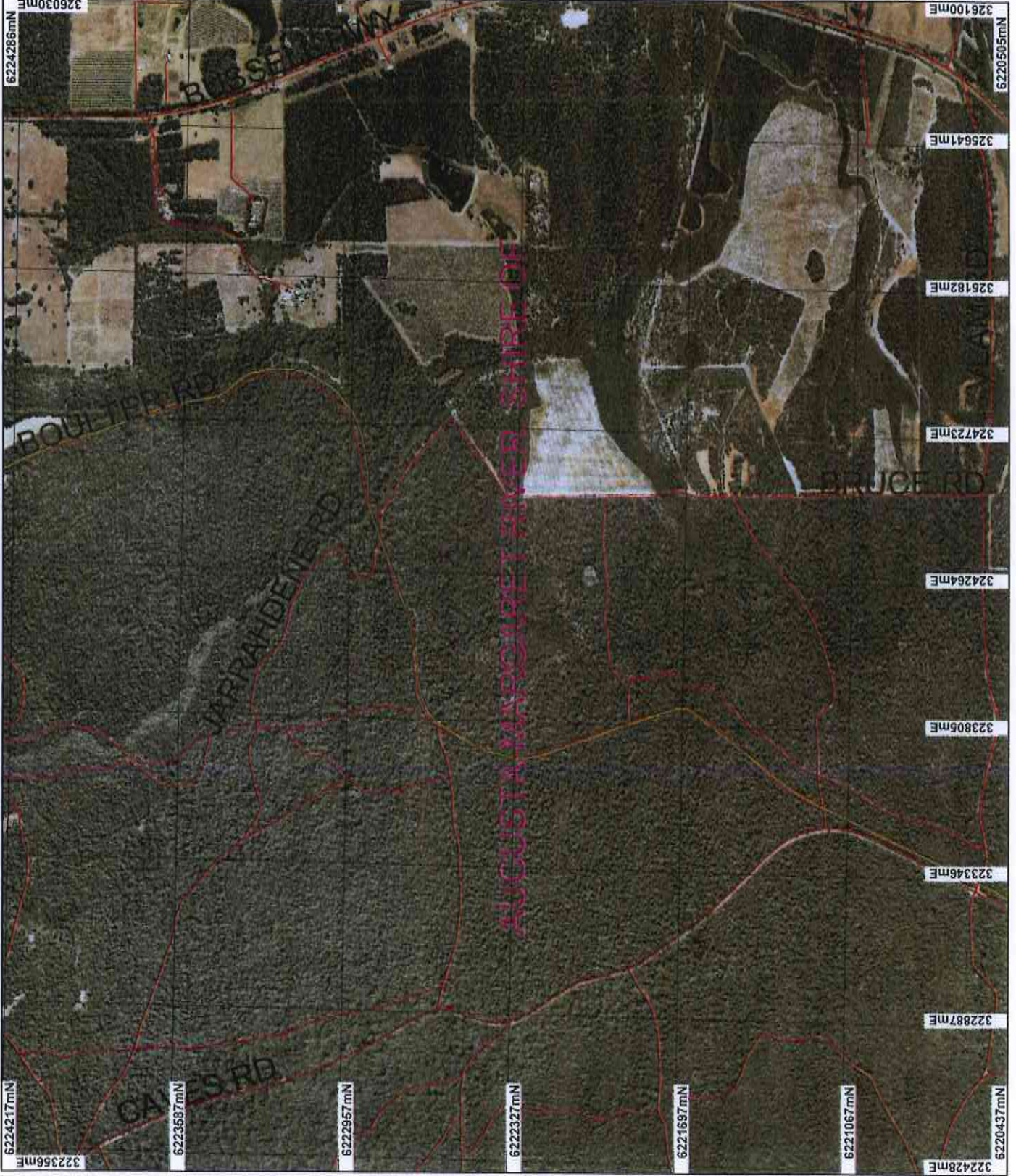
Mick Warnock Date 1/5/13

Mick Warnock
 Officer with delegated authority under Section 20 of
 the Environmental Protection Act 1986
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Plan 5525/1 (u)



LEGEND

- Local Government Authorities
- Road Centrelines
- Clearing Instruments
- Areas Approved to Clear
- Leeuwin 50cm Orthomosaic - Landgate 2004

* Project Data is denoted by asterisk.
 This data has not been quality assured.
 Please contact map author for details.



0 500 m

Scale 1:17960
 (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.

Michael Date 1/5/14

Miss Wemlock

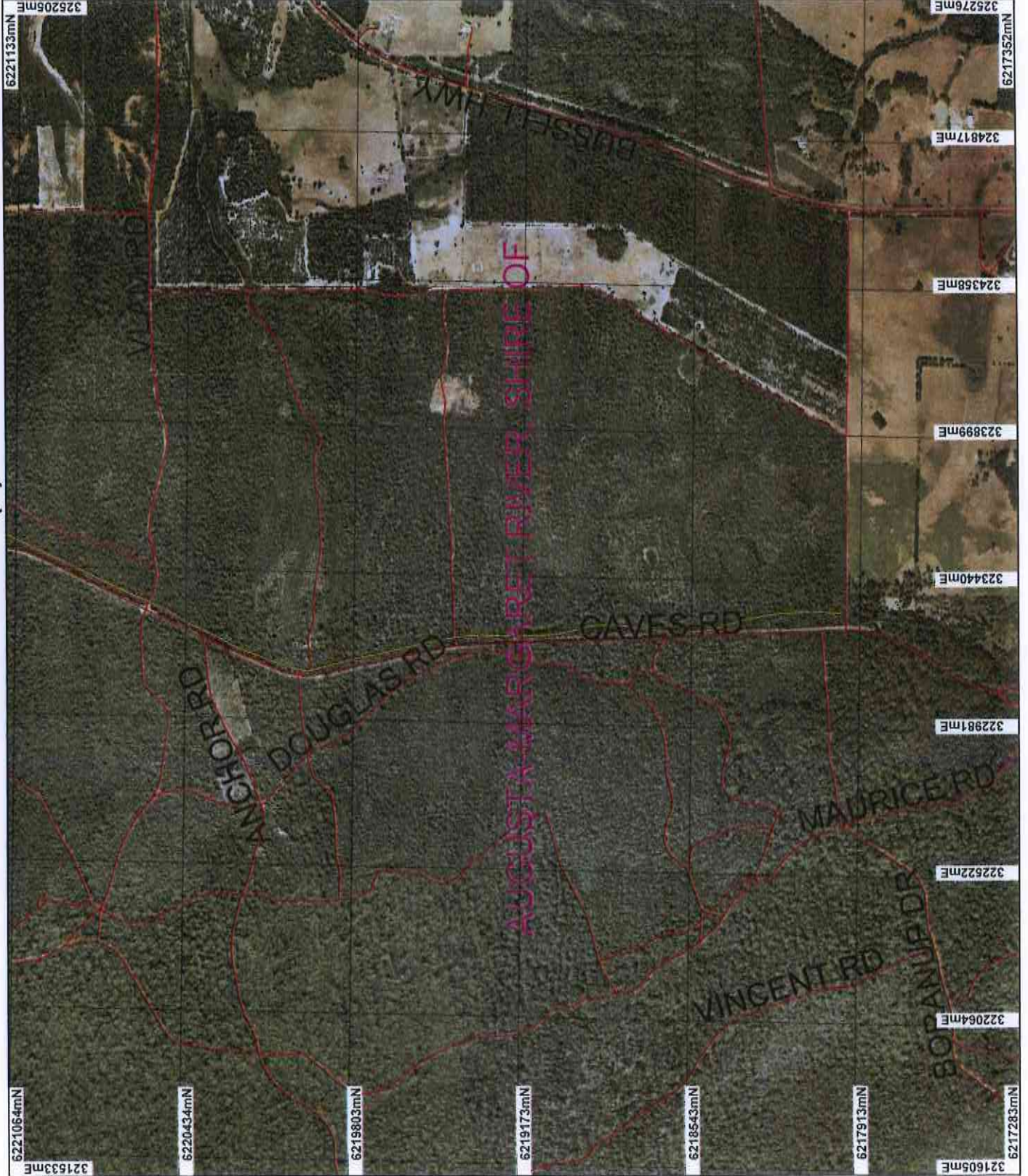
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Plan 5525/1 (v)



LEGEND

- Local Government Authorities
- Road Centrelines
- Clearing Instruments
- Areas Approved to Clear
- Leeuwin 50cm Orthomosaic - Landgate 2004

* Project Data is denoted by asterisk.
 This data has not been quality assured.
 Please contact map author for details.



Scale 1:17957
 Meters 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.

Matthew Date 1/5/14
 Matt Warwick

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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 Department of Environment Regulation
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1. Application details

1.1. Permit application details

Permit application No.: 5525/1
Permit type: Area Permit

1.2. Proponents details

Proponents name: Shire of Augusta Margaret River and City of Busselton

1.3. Property details

Property:

ROAD RESERVES (BUSSELTON 6280)
LOT 4539 ON PLAN 211912 (House No. 2 KING WEST BUSSELTON 6280)
ROAD RESERVES (WEST BUSSELTON 6280)
LOT 4540 ON PLAN 211912 (Lot No. 4540 WATTLE WEST BUSSELTON 6280)
ROAD RESERVES (WEST BUSSELTON 6280)
LOT 300 ON PLAN 4875 (Lot No. 300 THURKLE WEST BUSSELTON 6280)
LOT 84 ON PLAN 14463 (House No. 21 LOCKIMIAR WEST BUSSELTON 6280)
LOT 4789 ON PLAN 14463 (Lot No. 4789 MILL WEST BUSSELTON 6280)
LOT 4764 ON DIAGRAM 61721 (Lot No. 4764 MILL WEST BUSSELTON 6280)
LOT 502 ON PLAN 62966 (Lot No. 502 BUSSELL WEST BUSSELTON 6280)
LOT 422 ON PLAN 189704 (Lot No. 422 FALKINGHAM WEST BUSSELTON 6280)
SUSSEX LOCATION 4561 (Lot No. 4561 FALKINGHAM WEST BUSSELTON 6280)
LOT 305 ON PLAN 38818 (Lot No. 305 FAIRWAY WEST BUSSELTON 6280)
LOT 311 ON PLAN 38818 (Lot No. 311 FAIRWAY WEST BUSSELTON 6280)
LOT 310 ON PLAN 38818 (Lot No. 310 FAIRWAY WEST BUSSELTON 6280)
LOT 5230 ON PLAN 194433 (Lot No. 5230 FAIRWAY WEST BUSSELTON 6280)
LOT 5229 ON PLAN 194433 (Lot No. 5229 FAIRWAY WEST BUSSELTON 6280)
LOT 5241 ON PLAN 220465 (WEST BUSSELTON 6280)
LOT 5020 ON PLAN 15296 (Lot No. 5020 BUSSELTON VASSE 6280)
LOT 5246 ON PLAN 194430 (VASSE 6280)
ROAD RESERVEA (VASSE 6280)
LOT 5251 ON PLAN 220466 (VASSE 6280)
LOT 504 ON PLAN 57391 (VASSE 6280)
LOT 501 ON PLAN 57391 (Lot No. 501 ORLANDO VASSE 6280)
LOT 505 ON PLAN 57391 (Lot No. 505 BUSSELL VASSE 6280)
LOT 555 ON PLAN 65624 (Lot No. 555 BUSSELL VASSE 6280)
LOT 9001 ON PLAN 400047 (VASSE 6280)
ROAD RESERVE (KEALY 6280)
LOT 502 ON PLAN 55430 (Lot No. 502 VASSE-YALLINGUP SIDING MARYBROOK 6280)
ROAD RESERVES (MARYBROOK 6280)
LOT 504 ON PLAN 63874 (Lot No. 504 VASSE-YALLINGUP SIDING MARYBROOK 6280)
LOT 503 ON PLAN 63874 (Lot No. 503 VASSE-YALLINGUP SIDING MARYBROOK 6280)
LOT 500 ON PLAN 55430 (Lot No. 500 VASSE-YALLINGUP SIDING MARYBROOK 6280)
LOT 300 ON PLAN 47826 (Lot No. 300 VASSE-YALLINGUP SIDING MARYBROOK 6280)
ROAD RESERVE (ANNIEBROOK 6280)
LOT 504 ON PLAN 69597 (Lot No. 504 VASSE-YALLINGUP SIDING ANNIEBROOK 6280)
LOT 21 ON PLAN 4880 (House No. 673 VASSE-YALLINGUP SIDING ANNIEBROOK 6280)
LOT 503 ON PLAN 69596 (Lot No. 503 VASSE-YALLINGUP SIDING ANNIEBROOK 6280)
LOT 5165 ON PLAN 220007 (Lot No. 5165 VASSE-YALLINGUP SIDING YALLINGUP SIDING 6282)
ROAD RESERVE (YALLINGUP SIDING 6282)
LOT 5148 ON PLAN 220007 (Lot No. 5148 YALLINGUP SIDING YALLINGUP SIDING 6282)
ROAD RESERVE (YALLINGUP SIDING 6282)
LOT 4696 ON PLAN 240160 (Lot No. 4696 BLYTHE YALLINGUP SIDING 6282)
LOT 4879 ON PLAN 4885 (Lot No. 4879 YELVERTON YELVERTON 6280)

LOT 4874 ON PLAN 4885 (Lot No. 4874 METRICUP-YELVERTON YELVERTON 6280)
 LOT 4892 ON PLAN 4885 (Lot No. 4892 METRICUP-YELVERTON METRICUP 6280)
 ROAD RESERVES (METRICUP 6280)
 LOT 4697 ON PLAN 240159 (Lot No. 4697 RYAN METRICUP 6280)
 LOT 4993 ON PLAN 192337 (METRICUP 6280)
 LOT 4631 ON PLAN 31690 (Lot No. 4631 HARMANS MILL METRICUP 6280)
 LOT 303 ON PLAN 42633 (Lot No. 303 BUSSELL METRICUP 6280)
 ROAD RESERVES (COWARAMUP 6284)
 LOT 350 ON PLAN 50851 (Lot No. 350 GARDINER COWARAMUP 6284)
 LOT 504 ON PLAN 60360 (Lot No. 504 MIAMUP COWARAMUP 6284)
 LOT 500 ON PLAN 56225 (House No. 39 MIAMUP COWARAMUP 6284)
 LOT 505 ON PLAN 59008 (Lot No. 505 MIAMUP COWARAMUP 6284)
 LOT 506 ON PLAN 59008 (Lot No. 506 MIAMUP COWARAMUP 6284)
 LOT 5266 ON PLAN 220451 (Lot No. 5266 ELLEN BROOK COWARAMUP 6284)
 LOT 4984 ON PLAN 243172 (Lot No. 4984 BUSSELL BRAMLEY 6285)
 ROAD RESERVES (BRAMLEY 6285)
 ROAD RESERVES (MARGARET RIVER 6285)
 LOT 204 ON PLAN 240262 (House No. 25 CLARKE MARGARET RIVER 6285)
 UNALLOCATED CROWN LAND (MARGARET RIVER 6285)
 WATER FEATURE (MARGARET RIVER 6285)
 UNALLOCATED CROWN LAND (MARGARET RIVER 6285)
 LOT 179 ON PLAN 4893 (Lot No. 179 RAILWAY MARGARET RIVER 6285)
 LOT 261 ON PLAN 192821 (House No. 89 WALLCLIFFE MARGARET RIVER 6285)
 LOT 297 ON PLAN 36399 (House No. 71 CLARKE MARGARET RIVER 6285)
 LOT 135 ON PLAN 211917 (House No. 41 CLARKE MARGARET RIVER 6285)
 LOT 194 ON PLAN 215414 (House No. 1 KINSELLA MARGARET RIVER 6285)
 LOT 4643 ON PLAN 195471 (Lot No. 4643 BUSSELL MARGARET RIVER 6285)
 LOT 4878 ON PLAN 4894 (MARGARET RIVER 6285)
 LOT 5436 ON PLAN 27433 (MARGARET RIVER 6285)
 LOT 4882 ON PLAN 27433 (Lot No. 4882 GNARAWARY MARGARET RIVER 6285)
 LOT 4885 ON PLAN 189634 (WITCHCLIFFE 6286)
 LOT 300 ON PLAN 48548 (WITCHCLIFFE 6286)
 ROAD RESERVES (WITCHCLIFFE 6286)
 LOT 5459 ON PLAN 27434 (WITCHCLIFFE 6286)
 LOT 5437 ON PLAN 27321 (WITCHCLIFFE 6286)
 LOT 53 ON PLAN 91807 (Lot No. 53 BUSSELL WITCHCLIFFE 6286)
 LOT 4659 ON PLAN 91199 (Lot No. 4659 MAMMOTH WITCHCLIFFE 6286)
 LOT 5438 ON PLAN 27432 (WITCHCLIFFE 6286)
 ROAD RESERVES (FOREST GROVE 6286)
 LOT 5439 ON PLAN 27429 (FOREST GROVE 6286)
 LOT 5440 ON PLAN 27429 (FOREST GROVE 6286)
 LOT 5460 ON PLAN 27429 (FOREST GROVE 6286)
 ROAD RESERVES (BORANUP 6286)
 LOT 4948 ON PLAN 92109 (BORANUP 6286)
 City of Bussleton and Shire of Augusta – Margaret River

Local Government Area:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2.37		Mechanical Removal	Recreation

1.5. Decision on application

Decision on Permit Application:	Grant
Decision Date:	1 May 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 1 is described as tall forest consisting of karri (Eucalyptus diversicolor).	The proposed clearing consists of 2.74 hectares of native vegetation within various Lots and Road reserves for the purpose of	Excellent; Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The condition of the vegetation was established via a Flora survey of the application area undertaken by Ekologica (2012). A flora survey of the application area (Ekologica, 2012) identified the following four vegetation systems within the application area.

Mapped Beard Vegetation Association 3 is described as medium forest consisting of jarrah and marri.

Mapped Beard Vegetation Association 37 is described as shrubland consisting of Teatree thicket.

Mapped Beard Vegetation Association 949 is described as low woodland consisting of banksias.

Mapped Beard Vegetation Association 990 is described as low forest consisting of peppermint (*Agonis flexuosa*).

Mapped Beard Vegetation Association 1000 is described as medium forest consisting of jarrah and marri with areas of low Banksia woodland and low forest consisting of Teatree (*Melaleuca* Spp.).

Mapped Beard Vegetation Association 1134 is described as medium woodland consisting of marri, wandoo & powderbark.

Mapped Beard Vegetation Association 1136 is described as low woodland consisting of Banksia prionotes.

Mapped Beard Vegetation Association 1181 is described as medium woodland consisting of jarrah & *Eucalyptus haematoxylon*

(Shepherd et al, 2001).

developing the former Busselton to Flinders Bay railway into a 109 kilometre recreational and interpretation trail.

To

Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)

The Boranup vegetation system of the Warren botanical subdistrict (southern portion of the proposed clearing) is comprised of Karri tall forest on coastal limestone red soils along with *Eucalyptus marginata* and *Corymbia calophylla* on small patches of alluvial soil. Understorey species include *Trymalium odoratissimum*, *Chorilaena quercifolia* and *Pimelea clavata*. A range of structural types, low forest, low woodland and low open woodland, dominated by Jarrah and Peppermint (*Agonis flexuosa*) are found on leached sands, and poorly drained areas may carry shrub thickets from the families Fabaceae and Myrtaceae.

The Chapman Vegetation System (approximately 66 per cent of the application area) includes both the vegetation on the Black Plateau and most of the Margaret River Plateau. The vegetation here is comprised of Jarrah (*Eucalyptus marginata*) forest with *Eucalyptus rudis* and *Eucalyptus patens* on heavier soils and thickets of *Taxandria linearifolia* along narrow drainage lines. On the slopes of the Whicher Scarp, woodlands of *Eucalyptus marginata* and *Corymbia haematoxylon* are found on sandy gravels, with woodlands of *Banksia attenuata* on deeper sands.

The Pinjarra Plain Vegetation System is largely comprised of *Corymbia calophylla* with *Eucalyptus marginata* on lighter soils. *Eucalyptus patens* forest or tall woodland and *Taxandria linearifolia* thicket is found along streamlines crossing the plain and in poorly drained depressions woodlands of *Melaleuca raphiophylla* and *Melaleuca preissiana* and thickets and shrublands dominated by the plant families Fabaceae, Myrtaceae and Proteaceae occur.

Small patches of the Bassendean Vegetation System occur on low sandy rises on the plain and support woodland dominated by Jarrah and *Banksia attenuata*.

The Spearwood Vegetation System is comprised of *Eucalyptus gomphocephala* tall woodland on low ridges of yellow calcareous sand. Peppermint (*Agonis flexuosa*) low woodland occurs on the seaward side of the Tuart forest north of Busselton and woodlands or low woodlands of *Eucalyptus rudis*, *Melaleuca raphiophylla* and *Melaleuca preissiana* occur within a chain of depressions and swamps that run parallel to the coast and adjoin the Pinjarra Plain system west of Busselton.

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 amended area of proposed clearing consists of 2.74 hectares of native vegetation within various Lots and road reserves within the City of Busselton and Shire of Augusta - Margaret River. The proposed clearing is part of the Trail Development Plan, commissioned by the City of Busselton, Shire of Augusta - Margaret River and the National Trust to develop the former Busselton to Flinders Bay Railway into a 109 kilometre recreational and interpretation trail.

This amended application includes approximately 60 kilometres of the trail, with other portions of the trail following existing cleared areas, or proposed for clearing at a later date. The area of proposed clearing was initially 8.47 hectares, however the proponents have liaised with the Department of Parks and Wildlife (Parks and Wildlife) to reduce the area of proposed clearing to 2.74 hectares, through excluding segments of the alignment and realigning the trail to follow existing cleared areas.

The vegetation under application ranges from excellent to completely degraded (Keighery, 1994) condition. The majority of the vegetation in good to excellent (Keighery, 1994) condition lies adjacent to conservation areas.

A flora and vegetation assessment (Ekologica, 2012) of the project area identified 335 native flora species within four vegetation systems. Of the 335 native flora species identified, six are classified as priority flora species, (five priority 3 and one priority 4) (Ekologica, 2012). Nine other flora species, not listed as rare or priority, but recognised as significant endemic species within the South West Region, occur within the project area (Parks and Wildlife, 2013).

The proponents have advised that existing pathways, maintenance tracks, access tracks and roads will be utilised over significant portions of the trail to minimise impacts to priority and regionally significant flora species. The proponents will also be required to submit a Construction and Environmental Management Plan (CEMP) for approval prior to undertaking any clearing. The CEMP will need to address how impacts to the abovementioned conservation significant flora will be minimised.

There are 19 Mattiske Vegetation Complexes mapped within the project area. The percentage of pre-European vegetation remaining within these complexes varies from less than five per cent within the Abba (Aw) and Ludlow (Lw) complex to 96 per cent within the Gracetown (G2) complex (Mattiske and Havel, 1998). Six of the 19 complexes have less than 10 per cent native vegetation remaining, and represent extensively cleared vegetation communities.

Three priority ecological communities (PEC's) occur within the proposed trail alignment. These PEC's are known as 'Shrublands of near permanent wetlands in creeklines of the Whicher Scarp' (Whicher Scarp Community G2, Priority 1), 'West Whicher Scarp Banksia attenuata woodland' (Swan Coastal Plain centered woodlands of grey/white sands community B2, Priority 1) and 'Eucalyptus patens, Corymbia calophylla, Agonis flexuosa Closed Low Forest' (Vasse Blackbutt, Priority 1). Furthermore, a significant plant community, representative of 'Shrublands of near permanent wetlands in creeklines of the Whicher Scarp', listed as a PEC (Priority 1), occurs within the proposed trail alignment adjacent to the Walburra Nature Reserve and it is possible that this area is an unmapped occurrence of this PEC (Parks and Wildlife, 2013). The proponents have advised that the project area associated with the Vasse Blackbutt Community will utilise an existing Water Corporation maintenance track, therefore impacts to this PEC will be minimal. Furthermore the trail has been realigned to follow a completely degraded road edge and an existing sandy track through the B2 and G2 communities, whereby some pruning and minor clearing may be necessary. The requirement to submit a CEMP for approval prior to clearing will also help to mitigate impacts to the abovementioned PEC's.

The revised application area does not occur within any mapped threatened ecological communities (TECs), however a recent floristic survey (Griffin, 2012) of probable TEC sites within the South West Region identified vegetation representative of a state and federally (under the Environment Protection Biodiversity and Conservation Act) listed TEC within the application area. This TEC is known as 'Dense Shrublands on clay flats' by the State and 'Claypans of the Swan Coastal Plain' by the Commonwealth. The proponents have advised that an existing Water Corporation maintenance track will be utilised within this area to avoid impacts to this potential TEC.

In addition to the abovementioned PEC and TEC there are several restricted vegetation communities that may occur within the application area. These restricted vegetative communities are; open shrubland with *Pultenaea brachytropis* and *Pimelea imbricata*, the Lithic Complex of the Cowaramup uplands, the Jarrah, Marri, *Dasypogon hookeri*, *Hakea lasianthoides* open forest and the Abba Plain transitional restricted community (Ekologica, 2012).

A level 1 fauna assessment of the application area identified the potential for 29 conservation significant fauna species to occur within the area of proposed clearing (Harewood, 2013). Of these, it was identified that habitat for *Engaewa reducta* (Dunsborough burrowing crayfish), listed as 'rare or likely to become extinct' under the Wildlife Conservation Act 1950 (WC Act) may be included within the proposed trail alignment. This portion of the trail alignment has subsequently been removed from the current application area, therefore impacts to *E.reducta* are unlikely to be significant. The vegetation under application may provide suitable habitat for Western ringtail possum (WRP), however given the linearity and reduced size of the amended application area, it is not likely that the vegetation under application provides significant habitat for this species.

The proposed trail passes within 50 metres of several conservation reserves including Yelverton National Park, Walburra Nature Reserve and Leeuwin-Naturaliste National Park.

A dieback survey identified that 33 kilometres of the vegetation within the proposed 109 kilometre trail is dieback infested (Great Southern Bio Logic, 2012). The disturbance from the proposed clearing will increase the likelihood of dieback spreading into adjacent vegetated areas, including the abovementioned conservation estate. A total of 23 species of significant environmental weeds were identified within the proposed trail (Ekologica, 2012) which may also be spread from disturbance.

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

The requirement to submit a comprehensive CEMP prior to any clearing will help to ensure that impacts to conservation significant species and communities are minimised and appropriately managed.

Methodology

References:

- Keighery (1994)
- Mattiske and Havel (1998)
- Harewood (2013)
- Ekologica (2012)
- Parks and Wildlife (2013)
- Great Southern Bio Logic (2012)
- Griffin (2012)

GIS Databases:
-SAC Bio Datasets (Accessed May 2013)
-DEC Tenure
-SWREL-AL

(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

A level 1 fauna assessment of the application area identified 230 fauna species as potentially occurring within the application area, with 29 of these listed as conservation significant (Harewood, 2013). Of these 29 conservation significant species, confirmed habitat, or potential habitat, for five species was identified within the proposed trail (Harewood, 2013).

Engaewa reducta (Dunsborough burrowing crayfish) has a preference for vegetated surface seepages, swamp plains and shallow swampy headwater tributaries with vegetation comprised of very dense heathland dominated by myrtaceous shrubs (Harewood, 2013). Confirmed habitat for *E. reducta* is found within a section of the proposed trail alignment. The portion of the trail alignment containing suitable habitat for this species has been removed from the area currently under assessment, therefore it is unlikely that this species will be impacted upon by the proposed clearing. Should these areas require clearing in the future, measures to mitigate potential impacts to this species should be undertaken.

The fauna assessment (Harewood, 2013) identified potential habitat for *Geocrinia alba* (white bellied frog), classified as 'rare or likely to become extinct' under the WC Act 1950. This species occurs between Margaret River and Karridale with populations occurring in creeks in three landform units including, broad, U shaped drainage depressions with swampy floors in undulating to hilly country overlying Leeuwin Block granites and narrow V shaped valleys on laterite Perth Basin sediments (Harewood, 2013). The proposed trail crosses the western edge of the range of this species. The fauna assessment identified that no creeks characteristic of sites used for breeding by *G. alba* were encountered during survey work, no swamps with current or historic records of *G. alba* are intersected by the proposed trail alignment and no calls of *G. alba* were heard at any sites surveyed within the proposed trail (Harewood, 2013). Therefore the proposed clearing is unlikely to impact upon significant habitat for *G. alba*.

The proposed trail includes vegetation that may be utilised by *Calyptorhynchus latirostris* (Carnaby's cockatoo), *Calyptorhynchus baudinii* (Baudin's cockatoo), and *Calyptorhynchus banksii naso* (Forest red-tailed black cockatoo).

These species nest in large hollows of mature eucalyptus trees and forage on the seeds, nuts and flowers of a large variety of plants including proteaceous species (*Banksia*, *hakea*, *grevillea*), as well as *Allocasuarina* sp. *Eucalyptus* sp., *Corymbia calophylla* and a range of introduced species (Valentine and Stock, 2008). No large mature trees, or trees containing hollows large enough to be utilised as breeding habitat were observed within the alignment during a fauna survey (Harewood, 2013). The vegetation under application may provide foraging habitat for these species given that it includes many of the abovementioned preferred plant and tree species, however given that well vegetated areas surround much of the proposed trail, and the small size and linearity of the proposed clearing, it is unlikely that the vegetation under application represents significant foraging habitat for these species.

The revised application area includes two vegetation systems (Bassendean Vegetation System and Boranup Vegetation System) that contain flora species suitable to be utilised as habitat for Western ringtail possum (WRP), which frequently create dreys within large *Agonis flexuosa*. The proponents have amended the application area to reduce the area of proposed clearing from 8.47 hectares to 2.74 hectares, therefore it is unlikely that the vegetation within the revised application area provides significant habitat for WRPs.

The application area is located along or within close proximity to mapped South West Regional Ecological Linkages. These linkages act as stepping stones of high quality habitat, thereby facilitating the maintenance of ecological processes and the movement of organisms within, and across a landscape (Molloy et al, 2009). Given that the proposed works involve the clearing of a linear shape six metres in width, it is unlikely that the value of these linkages will be impacted upon.

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

Methodology

References:
-Valentine and Stock (2008)
-Harewood (2013)
-Molloy et al (2009)
-Commonwealth of Australia (2009)
GIS Databases:
-SWREL-AL

(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**
No species of rare flora were recorded within the application area during a flora survey undertaken by Ekologica (2012), however two species of rare flora were mapped within 50 metres of the initial proposed trail alignment.

The proponents have since liaised with Parks and Wildlife to realign the proposed trail and reduce potential impacts to rare flora. The two abovementioned species are now mapped approximately two kilometres west of the application area, and it is not likely that the vegetation under application includes, or is necessary for, the continued existence of these species.

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

Methodology References:
-Ekologica (2012)

GIS Databases:
-SAC Bio Datasets (Accessed May 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**
There are several threatened ecological communities (TECs) mapped within the local area (10 kilometre radius). The original proposal involved the removal of approximately 0.69 hectares of vegetation associated with the 'Eucalyptus calophylla woodland on heavy soils of the Swan Coastal Plain' (SWAFCPT01b) threatened ecological community (NGH Environmental, 2013).

The current application area has been amended to avoid this TEC by utilising an adjacent existing maintenance track, whereby no vegetation associated with this community is proposed for removal. The application area has also been amended to avoid vegetation (via utilising an existing cleared Water Corporation maintenance track) that has the potential to form part of an unmapped TEC occurrence known as 'Dense Shrublands on clay flats' by the State and 'Claypans of the Swan Coastal Plain' by the Commonwealth. Therefore, the vegetation under application is not likely to comprise, or be necessary for the maintenance of a TEC.

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

Methodology References:
-NGH Environmental (2013)

GIS Databases:
-SAC Bio Datasets (Accessed May 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 may be at variance to this Principle**
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).

There are three Beard Vegetation Associations (BVAs) 990, 1000 and 1136, and six Matiske Vegetation Complexes, AF, Af, Aw, Cw2, Lw and Yw, mapped within the area of proposed clearing that retain less than 30 per cent pre-European vegetation.

Three of the Matiske Vegetation Complexes, Lw, Aw and Af retain less than 10 per cent pre-European vegetation.

The proponents have advised that the use of an existing Water Corporation maintenance track will minimise clearing of native vegetation included within mapped Matiske Vegetation Complexes (AF, Af, Aw and Lw), and Beard Vegetation Association 1000, whereby only a small section containing isolated trees and shrubs is proposed for clearing within this area.

A small section of vegetation mapped as Matiske Vegetation Complex Lw and AF and mapped BVA 1136 (between Chain Avenue and Marybrook Road) is proposed for clearing. The proponents have advised that the vegetation within this area is almost exclusively bracken fern (*Pteridium esculentum*). This species is not included within the vegetation description for the Lw, AF and BVA 1136 complex and association.

The area of the proposed trail associated with Beard Vegetation Association 990 (north of Busselton Bypass Road) follows an existing cleared path, and vegetation within this vegetation complex will not be impacted upon.

The use of an existing cattle access track (Metricup & Yelverton Road to almost Metricup Road), a sandy track along Blythe Road and section of Metricup-Yelverton Rd will be utilised to minimise clearing within mapped Matiske Vegetation Complexes Yw and Cw2.

Through amending the application area, the proponents have minimised the potential impact on vegetation associated with the extensively cleared vegetation complexes and associations via revision of a large portion of the trail to follow existing cleared areas. The vegetation proposed for clearing is now largely confined to the edges of existing tracks and roads. Despite this, the proposed works will require the removal of some vegetation associated with the abovementioned complexes and associations, whereby some of this vegetation may be considered significant, particularly with regards to Lw, which retains only six hectares of its pre-European vegetation.

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

The proponents will be required to submit for approval a CEMP, which will need to include information on how much vegetation within each complex and association is required for removal. This will help to ascertain whether the vegetation under application is significant as a remnant.

	Pre-European (ha)	Current Extent Remaining (ha)	Remaining (%)	DEC Managed Lands (%)
IBRA Bioregion*				
Jarrah Forest	4,506,657	2,473,560	55	68
Warren	833,982	664,123	80	83
Swan Coastal Plain	1,501,209	587,833	39	35
Shire*				
City of Busselton	146,478	62,298	43	66
Shire of Augusta - Margaret River	211,681	133,600	63	74
Beard Vegetation Association in Jarrah Forest Bioregion*				
3	2,390,592	641,272	69	80
37	2,493	1,866	75	71
1181	9,978	5,389	54	68
Beard Vegetation Association in Warren Bioregion*				
1	69,118	55,019	80	82
3	250,263	198,873	79	85
1108	8,769	8,025	91	72
1134	14,409	12,587	87	87
Beard Vegetation Association in Swan Coastal Plain*				
990	1,952	348	18	10
1000	94,175	24,973	26	17
1136	48,118	3,820	8	4
1181	9,239	3,701	40	40
Matiske Vegetation Complex**				
AF	1,905	215	11	0
Af	2,580	216	8	0
Aw	9,094	478	5	0
C1	18,967	7,670	40	12
C2	12,879	4,731	37	6
Cd	3,493	2,443	70	17
Cw1	6,144	2,009	33	10
Cw2	6,364	1,506	24	4
G2	3,176	3,055	96	80
H	7,706	2,737	36	8
Hw	2,736	1,076	39	8
Lw	186	6	3	0
M	753	542	72	32
Tw	8,723	3,236	37	21
W1	7,296	4,397	60	26
Ww1	2,267	1,390	61	21
Y	7,637	2,309	30	12
Yd	1,768	1,024	58	3
Yw	3,841	927	24	5

* Government of Western Australia (2013)

** Matiske and Havel (1998)

Methodology

References:

- Government of Western Australia (2013)
- Matiske and Havel (1998)
- Keighery (1994)

(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

There are numerous watercourses and wetlands occurring within the local area (10 kilometre radius). Several minor perennial watercourses, Mary Brook, Willyabrup Brook, a significant stream, a sumpland (listed as a geomorphic wetland of Augusta - Margaret River), multiple use palusplains, a Conservation Category floodplain (Carbanup River) and a Conservation Category estuary water body all intersect the application area.

The proponents have realigned the application area to follow an existing cleared pathway adjacent to Fairway Drive, which will minimise potential impacts to the Conservation Category estuary water body. However, vegetation associated with the Carbanup River and geomorphic wetland of Augusta - Margaret River, is likely to be impacted upon by the proposed clearing, as the proponents have advised that watercourse crossings in these areas will require upgrading.

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

The proponents have advised that where clearing of riparian vegetation is required (expected to be minimal at each of the nominated watercourse crossings), revegetation with riparian species following the required works will be undertaken (NGH Environmental, 2013). The requirement to submit a comprehensive CEMP for approval prior to any clearing will also ensure that impacts to riparian vegetation are minimised.

Methodology

References:

-NGH Environmental (2013)

GIS Databases:

-Hydrography, linear

-Hydrography, hierachy

-Geomorphic Wetlands, Augusta - Margaret River

-Geomorphic Wetlands, Swan Coastal Plain

(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 application area traverses the Margaret River Plateau and Swan Coastal Plain of which the majority is situated within the Cowaramup Upland (Co) system of the Margaret River Plateau. The application area also traverses the Willyabrup Valley, Whicher Scarp, Abba Plain, Ludlow Plain and the Quindalup Coast (Qu) land system (Ekologica, 2012).

The Cowaramup Upland is an undulating plain with soils of yellow and brown gravelly duplex and pale grey mottled soils (NGH Environmental, 2013). The Willyabrup Valleys (Wv) land system forms undulating to rolling hills lying below the Cowaramup Upland system (NGH Environmental, 2013). The Willyabrup Valleys have yellow and brown gravelly duplex soils and red and brown gravelly soils. Alluvial flats with well drained red, brown and grey loamy soils occur along the valley floors (Ekologica, 2012).

The transition between the Margaret River Plateau and the Swan Coastal Plain is characterised by the Whicher Scarp (Ws) land system which forms on gently inclined slopes and undulating plains. The dominant soil types are yellow and brown gravelly pale grey mottled soils. Also present are patches of deep, bleached sands and shallow gravel over ironstone (Ekologica, 2012).

The abovementioned soil types are associated with low water erosion, water logging, and flood risk due to their highly permeable nature. On this basis, the clearing of native vegetation within these landforms is unlikely to result in water erosion causing appreciable land degradation. Despite these soils showing some susceptibility to wind erosion, it is unlikely that the linear clearing of 2.74 hectares of native vegetation will lead to wind erosion causing appreciable land degradation.

The proposed alignment also traverses the Abba Plain and Ludlow Plain land systems. The Abba Plain is situated on the Swan Coastal Plain and contains extensive areas with poor drainage, with soils of deep, bleached sands on low rises perched on heavier alluvial soils and well drained flats with sandy grey soils and red and brown sandy and loamy soils (Ekologica, 2012). The Ludlow Plain land system contains deep, brownish and yellow sands on low ridges and clayey soils in poorly drained depressions (Ekologica, 2012).

Soils within these land systems have a greater risk of water erosion given their poorly drained nature, however, given the small amount of vegetation to be removed on these land systems, and the linearity of the proposed clearing, it is not likely that the removal of vegetation within these areas will cause appreciable land degradation.

The proposed clearing is not likely to be at variance to this Principle

Methodology

References:

-Ekologica (2012)

-NGH Environmental (2013)

(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

The application area is located along or within close proximity to mapped South West Regional Ecological Linkages. These linkages act as stepping stones of high quality habitat thereby facilitating the maintenance of ecological processes and the movement of organisms within, and across, a landscape (Molly et al, 2009). Given that the proposed works involve the clearing of a linear shape six metres in width, it is unlikely that the value of these linkages will be impacted upon.

The proposed trail alignment is located within 50 metres of several conservation areas including, Yelverton National Park, Walburra Nature Reserve and Leeuwin-Naturaliste National Park.

A dieback survey (Great Southern Bio Logic, 2012) identified that approximately 33 kilometres of the rail reserve is classified as dieback infested, 10 kilometres is uninfested, 24 kilometres is uninterpretable and 40 kilometres is unmappable due to poor vegetation condition. Given the close proximity of the proposed rail to several areas of conservation significance, there is the potential for the proposed clearing to spread dieback into these areas.

The proposed clearing may be at variance to this Principle.

The proponents have advised that a CEMP, to be approved prior to any clearing taking place, will be prepared and implemented during construction works (containing hygiene management strategies) which coupled with weed and dieback management practices will assist in mitigating this risk of dieback and weeds spreading into adjacent conservation areas.

Methodology

References:

- Great Southern Bio Logic (2012)
- Molly et al (2009)

GIS Databases:

- 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 may be at variance to this Principle

There are numerous watercourses and wetlands occurring within the local area (10 kilometre radius). Several minor perennial watercourses, Mary Brook, Willyabrup Brook, a significant stream, a sumpland (listed as a geomorphic wetland of Augusta - Margaret River), multiple use palusplains, a Conservation Category floodplain (Carbanup River) and a Conservation Category estuary water body all intersect the application area.

Groundwater salinity on site is mapped between 1000 and 7000 milligrams per litre, with the majority of the application area within a salinity range of 1000 to 3000 milligrams per litre (brackish to moderately saline). Given that the 2.74 hectares proposed for clearing occurs over 109 kilometres, and the relatively low salinity mapped on site, it is not likely the proposed clearing will lead to a perceptible rise in the water table and thus an increase in groundwater salinity levels.

It has been identified that several watercourse crossings will require upgrading which may entail minor clearing of riparian vegetation. As a result, the associated watercourse or wetland may temporarily experience increased sediment loads.

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

The proponents have advised that clearing activities associated within a riparian zone will be conducted during dry conditions and in accordance with a CEMP which will include erosion and sedimentation mitigation measures. There will be a requirement for the proponents to submit for approval a CEMP prior to the commencement of any clearing.

This will assist in reducing the erosion potential and ensuring that sediment load increase will be temporary in nature. It is also advised that any non-vegetated surfaces within the riparian zone will be revegetated (NGH Environmental, 2013).

Methodology

References:

- NGH Environmental, 2013

GIS Databases:

- Groundwater Salinity, Statewide
- Hydrography, linear
- Geomorphic Wetlands, Augusta - Margaret River
- Geomorphic Wetlands, Swan Coastal Plain

(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

Given the narrow, linear shape of the application area and the porous nature of the majority of soils on site, it is not likely that the proposed clearing will cause or exacerbate the incidence or intensity of flooding.

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

Methodology -SAC Bio Datasets (accessed May 2013)

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

Comments

The proposed clearing is part of the Trail Development Plan, commissioned by the City of Busselton, Shire of Augusta - Margaret River and the National Trust to develop the former Busselton to Flinders Bay Railway into a 109 kilometre recreational and interpretation trail.

This amended application includes approximately 60 kilometres of the trail, with other portions of the trail following existing cleared areas, or proposed for clearing at a later date. The initial area of proposed clearing was 8.47 hectares, however the proponents have liaised with the Department of Parks and Wildlife (Parks and Wildlife) to reduce the area of proposed clearing to 2.74 hectares through excluding segments of the alignment and realigning the trail to follow existing cleared areas.

The application area falls within several Aboriginal Sites of Significance. It is the proponents responsibility to comply with the Aboriginal Heritage Act 1972 and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

The application area falls within the Busselton to Capel and Blackwood Groundwater Areas and the Geographe Bay Rivers, Cape to Cape North, Cape to Cape South and Lower Blackwood River Surface Water Areas, proclaimed under the Rights in Water and Irrigation (RIWI) Act 1914. The Department of Water has issued a Permit to Obstruct or Interfere with Beds and Banks pursuant to the RIWI Act 1914. This has been issued to cover the construction of water crossings over the length of the trail (DoW, 2013). It is advised that should the proponents wish to take surface or groundwater in the proclaimed areas, an application for a licence will be required (DoW, 2013).

The DoW (2013) has further advised that part of the application area falls within a section of the Quindalup Water Reserve, a priority 1 Public Drinking Water Source Area (PDWSA). It is advised that the proposal is not likely to have any negative impacts on this Reserve, due to the confined nature of the aquifer.

The application area falls within several native title claim areas. Notification of the proposed clearing to the claimants has occurred and no comment has yet been received.

Trail users have the potential to spread and introduce weeds and dieback into heavily vegetated adjacent areas, including areas of high conservation value. The proponents have amended the area originally proposed for a horse trail, whereby the section associated with the Boranup Vegetation System has been removed due to the presence of riparian vegetation and increased potential for weed and dieback spread. The area associated with the horse trail is now to be confined to south of Buller Road. The proponents have advised that risk management will include consolidating the surface with compacted limestone, carrying out ongoing weed management in key areas, ensuring that horses are only allowed to access degraded sites, fencing off key conservation areas, and installing interpretive signage. It is advised that the CEMP, to be approved prior to any clearing taking place, will provide management and mitigation measures for the spread of dieback (NGH Environmental, 2013).

Methodology References:

- DoW (2013)
- NGH Environmental (2013)

GIS Databases:

- Aboriginal Sites of Significance
- Public Drinking Water Source Areas
- RIWI, Surface Water Areas
- RIWI, Groundwater Areas

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