



## **CLEARING PERMIT**

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

<b>Purpose Permit number:</b>	CPS 1042/3
<b>Permit Holder:</b>	Shire of York
<b>Duration of Permit:</b>	10 December 2006 – 10 December 2011

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 purpose of road and bridge upgrades and extractive industry

**2. Land on which clearing is to be done**

Various road reserves within Shire of York

**3. Clearing is not authorised**

Clearing is not is not authorised within the area shaded in red on Plan 1042/3j.

**4. Area of Clearing**

The Permit Holder must not clear more than 15 hectares of native vegetation and four trees within the area shaded yellow on attached Plans:

- Plan 1042/3a
- Plan 1042/3b
- Plan 1042/3c
- Plan 1042/3d
- Plan 1042/3e
- Plan 1042/3f
- Plan 1042/3g
- Plan 1042/3h
- Plan 1042/3i
- Plan 1042/3k
- Plan 1042/3l
- Plan 1042/3m
- Plan 1042/3n
- Plan 1042/3o

**5. 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.

**6. Type of clearing authorised**

This Permit authorises the Permit Holder to clear native vegetation for activities to the extent that the Permit Holder has the power to clear native vegetation for those activities under the *Local Government Act 1995* or any other written law.

**7. Compliance with Assessment Sequence and Management Procedures**

Prior to clearing any native vegetation under conditions 1, 2 and 4 of this Permit, the Permit Holder must comply with the Assessment Sequence and the Management Procedures set out in Part II of this Permit.

**PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES**

**8. 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.

**9. Fauna management**

- (a) Prior to undertaking any clearing authorised under this Permit, the area(s) shall be inspected by a *fauna specialist* who shall identify tree(s) that contain hollows suitable to be utilised as habitat by fauna listed in the *Wildlife Conservation (Specially Protected Fauna) Notice* (2008).
- (b) Prior to clearing, any *habitat tree(s)* identified by condition 9(a) shall be inspected by a *fauna specialist* for the presence of fauna listed in the *Wildlife Conservation (Specially Protected Fauna) Notice* (2008).
- (c) Prior to clearing, the Permit Holder shall ensure that any fauna identified by condition 9(b) shall be removed and relocated by a *fauna clearing person*, in accordance with a licence issued by the Department.

**10. Flora Management**

- (a) Prior to undertaking any clearing authorised under this Permit, the site shall be inspected by a *flora specialist* for the presence of rare flora listed in the *Wildlife Conservation (Rare Flora) Notice* (2008) and *priority flora taxa*.
- (b) Where rare flora and *priority flora taxa* are identified in relation to condition 10(a) of this Permit, the Permit Holder shall ensure that:
  - (i) all records of rare flora and *priority flora taxa* are submitted to the CEO;
  - (ii) no clearing occurs within 50 metres of identified rare flora, unless approved by the CEO; and
  - (iii) no clearing occurs with 10 metres of identified *priority flora taxa*, unless approved by the CEO

**11. Priority Ecological Community**

- (a) Prior to undertaking clearing within 50 metres of bridges along Gwambygine Road, the areas shall be inspected by an *environmental specialist* who shall identify potential impacts of the clearing on the priority ecological community, *Deep Pools of the Avon Botanical District*.
- (b) In relation to requirements of condition 11(a), the Permit Holder shall ensure that:
  - (i) All records of the priority ecological community are submitted to the CEO, and
  - (ii) No clearing occurs within 50m of identified priority ecological community, unless approved by the CEO.

## 12. Dieback and weed control

- (a) 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*:
  - (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
  - (ii) shall not move soils in wet conditions;
  - (iii) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
  - (iv) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.
- (b) At least once in each 12 month period for the *term* of this Permit, the Permit Holder must remove or kill any *weeds* growing within areas *cleared* and *revegetated* under this Permit.

## 13. Offsets

- (a) Determination of *offsets*:
  - (i) if part or all of the clearing to be done is or may be at variance with one or more of the clearing principles, then the Permit Holder must implement an *offset* in accordance with conditions 13(a) and 13(b) of this Permit with respect to that native vegetation;
  - (ii) in determining the *offset* to be implemented with respect to a particular area of native vegetation proposed to be cleared under this Permit, the Permit Holder must have regard to the *offset* principles contained in condition 13(b) of this Permit;
  - (iii) once the Permit Holder has developed an *offset proposal*, the Permit Holder must provide that *offset proposal* to the CEO for the CEO's approval prior to undertaking any clearing to which the *offset* relates, and prior to implementing the *offset*;
  - (iv) clearing may not commence until and unless the CEO has approved the *offset proposal*;
  - (v) the Permit Holder shall implement the *offset proposal* approved under condition 13(a)(iii); and
  - (vi) each *offset proposal* shall include a *direct offset*, timing for implementation of the *offset proposal* and may additionally include *contributing offsets*.
- (b) For the purpose of this condition, the *offset* principles are as follows:
  - (i) *direct offsets* should directly counterbalance the loss of the native vegetation;
  - (ii) *contributing offsets* should complement and enhance the *direct offset*;
  - (iii) *offsets* are implemented only once all avenues to avoid, minimise, rectify or reduce environmental impacts have been exhausted;
  - (iv) the environmental values, habitat, species, *ecological community*, physical area, ecosystem, landscape, and hydrology of the *offset* should be the same as, or better than, that of the area of native vegetation being *offset*;
  - (v) a ratio greater than 1:1 should be applied to the size of the area of native vegetation that is *offset* to compensate for the risk that the *offset* may fail;
  - (vi) *offsets* must entail a robust and consistent assessment process;
  - (vii) in determining an appropriate *offset*, consideration should be given to ecosystem function, rarity and type of *ecological community*, vegetation *condition*, habitat quality and area of native vegetation cleared;
  - (viii) the *offset* should either result in no net loss of native vegetation, or lead to a net gain in native vegetation and improve the *condition* of the natural environment;
  - (ix) *offsets* must satisfy all statutory requirements;
  - (x) *offsets* must be clearly defined, documented and audited;
  - (xi) *offsets* must ensure a long-term (10-30 year) benefit; and
  - (xii) an *environmental specialist* must be involved in the design, assessment and monitoring of *offsets*.



#### 14. Revegetation and rehabilitation

- (a) The Permit Holder shall retain the vegetative material and topsoil removed by clearing authorised under this Permit and stockpile the vegetative material and topsoil in an area that is already cleared.
- (b) Prior to undertaking works pursuant to conditions 14(c), the Permit Holder shall rip the pit floor and contour batters within the extraction site.
- (c) Within six months following clearing authorised under this Permit, the Permit Holder must *revegetate* and *rehabilitate* the areas cleared for the purpose of extractive industry:
  - (i) deliberately laying the vegetative material and topsoil retained under condition 14(a) on the cleared area;
  - (ii) deliberately *planting* and/or *direct seeding* native vegetation that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area; and
  - (iii) ensuring only *local provenance* seeds and propagating material sourced from within 10 kilometres of the area cleared are used to *revegetate* and *rehabilitate* the area.
- (d) Within twelve months of undertaking *revegetation* and *rehabilitation* in accordance with condition 14(c) of this Permit, the Permit Holder must:
  - (i) determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and
  - (ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under condition 14(d)(i) of this Permit will not result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, the Permit Holder must undertake additional *planting* or *direct seeding* of native vegetation in accordance with the requirements of condition 14(c)(ii) and (iii) of this Permit.

#### PART III – RECORD KEEPING AND REPORTING

#### 15. Records to be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit:

- (a) In relation to the clearing of native vegetation authorised under this Permit:
  - (i) the species composition, structure and density of the cleared area;
  - (ii) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
  - (iii) the date that the area was cleared; and
  - (iv) the size of the area cleared (in hectares).
- (c) In relation to fauna management pursuant to condition 9 fauna management (hollows) of this Permit:
  - (i) the location of each tree that contains hollows, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
  - (ii) the species of fauna reasonably likely to utilise, or that have been observed utilising, the trees that contain hollows;
  - (iii) the location of surrogate trees for relocation with vacant hollows, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings; and
  - (iv) the location and date where relocated fauna was released, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings.

- (b) In relation to flora management pursuant to condition 10 of this Permit:
  - (i) the location of each rare flora and *priority flora taxa* recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings; and
  - (ii) the species of each rare flora or *priority flora taxa* identified.
- (c) In relation to priority ecological community pursuant to condition 11 of this Permit:
  - (i) the location where the priority ecological community a report of the impacts of the clearing, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings; and
  - (ii) the species composition, structure and density of each priority ecological community identified.
- (d) In relation to the *revegetation* and *rehabilitation* of areas pursuant to condition 14 of this Permit:
  - (i) the location of any areas *revegetated* and *rehabilitated*, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
  - (ii) a description of the *revegetation* and *rehabilitation* activities undertaken;
  - (iii) the size of the area *revegetated* and *rehabilitated* (in hectares); and
  - (iv) the species composition, structure and density of *revegetation* and *rehabilitation*.
- (e) In relation to the *offset* of areas pursuant to condition 13:
  - (i) the location of any area of *offsets* recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
  - (ii) a description of the *offset* activities undertaken; and
  - (iii) the size of the *offset* area (in hectares).

## 16. Reporting

- (a) The Permit Holder must provide to the CEO, on or before 30 June of each year, a written report of records required under condition 15 of this Permit and activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.
- (b) Prior to 10 September 2011, the Permit Holder must provide to the CEO a written report of records required under condition 15 of this Permit where these records have not already been provided under condition 16(a) of this Permit.

## Definitions

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

**CEO** means the Chief Executive Officer of the Department of Environment and Conservation;

**condition** means the rating given to native vegetation using the *Keighery scale* and refers to the degree of change in the structure, density and species present in the particular vegetation in comparison to undisturbed vegetation of the same type;

**contributing offset/s** has the same meaning as is given to that term in the Environmental Protection Authority's *Position Statement No.9: Environmental Offsets*, January 2006;

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

**direct offset/s** has the same meaning as is given to that term in the Environmental Protection Authority's *Position Statement No.9: Environmental Offsets*, January 2006;



**direct seeding** means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

**ecological community/ies** means a naturally occurring biological assemblage that occurs in a particular type of habitat (English and Blythe, 1997; 1999) – the scale at which ecological communities are defined will depend on the level of detail in the information source, therefore no particular scale is specified;

**environmental specialist** means a person who is engaged by the permit holder for the purpose of providing environmental advice, who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit.

**fauna specialist** means a person with training and specific work experience in fauna identification or faunal assemblage surveys of Western Australian fauna;

**fauna clearing person** means a person who has obtained a licence from the Department of Conservation and Land Management, issued pursuant to the *Wildlife Conservation Regulations 1970* (as amended) authorising them to take fauna in order to carry out the approved clearing associated with this permit;

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

**flora specialist** means a person with specific training and/or experience in the ecology and taxonomy of Western Australian flora.

**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;

**local provenance** means native vegetation seeds and propagating material from natural sources within 10-40 kilometres of the area cleared.

**offset/s** means an offset required to be implemented under condition [#] of this Permit;

**offset proposal** means an *offset* determined by the Permit Holder in accordance with condition [#] of this Permit;

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

**Priority flora taxa** means those plant taxa that described as priority flora classes 1, 2, 3 or 4 in the *Declared Rare and Priority Flora List for Western Australia*, Department of Conservation and Land Management, as amended.

**Rare Flora** means flora that is declared to be rare flora under section 23F of the *Wildlife Conservation Act 1950*;

**rehabilitate/ed/ion** means actively managing an area containing native vegetation in order to improve the ecological function of that area;

**revegetate/ed/ion** means the re-establishment of a cover of *local provenance* native vegetation in an area using methods such as *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.

**road building materials** means rock, gravel, soil, stone, timber, boulders and water;

*term* means the duration of this Permit, including as amended or renewed;

*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 Agricultural and Related Resources Protection Act 1976.

A handwritten signature in black ink, appearing to read 'K Faulkner', is written over a horizontal line.

Kelly Faulkner  
MANAGER  
NATIVE VEGETATION CONSERVATION BRANCH

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

24 March 2009



# Plan 1042/3a



## LEGEND

Cadastral for labelling

Road Centralines

FW

HY

LRO

(cont)

LNS

MR

N

TR

Clearing Instruments

(cont)

Area Subject to Conditions

Area Approved to Clear

Northern 1m Orthomosaic

Landgate 2003



Scale 1:72124

(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 for measurement inaccuracies.

Kelly Faulstich

Date 24/3/07

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.

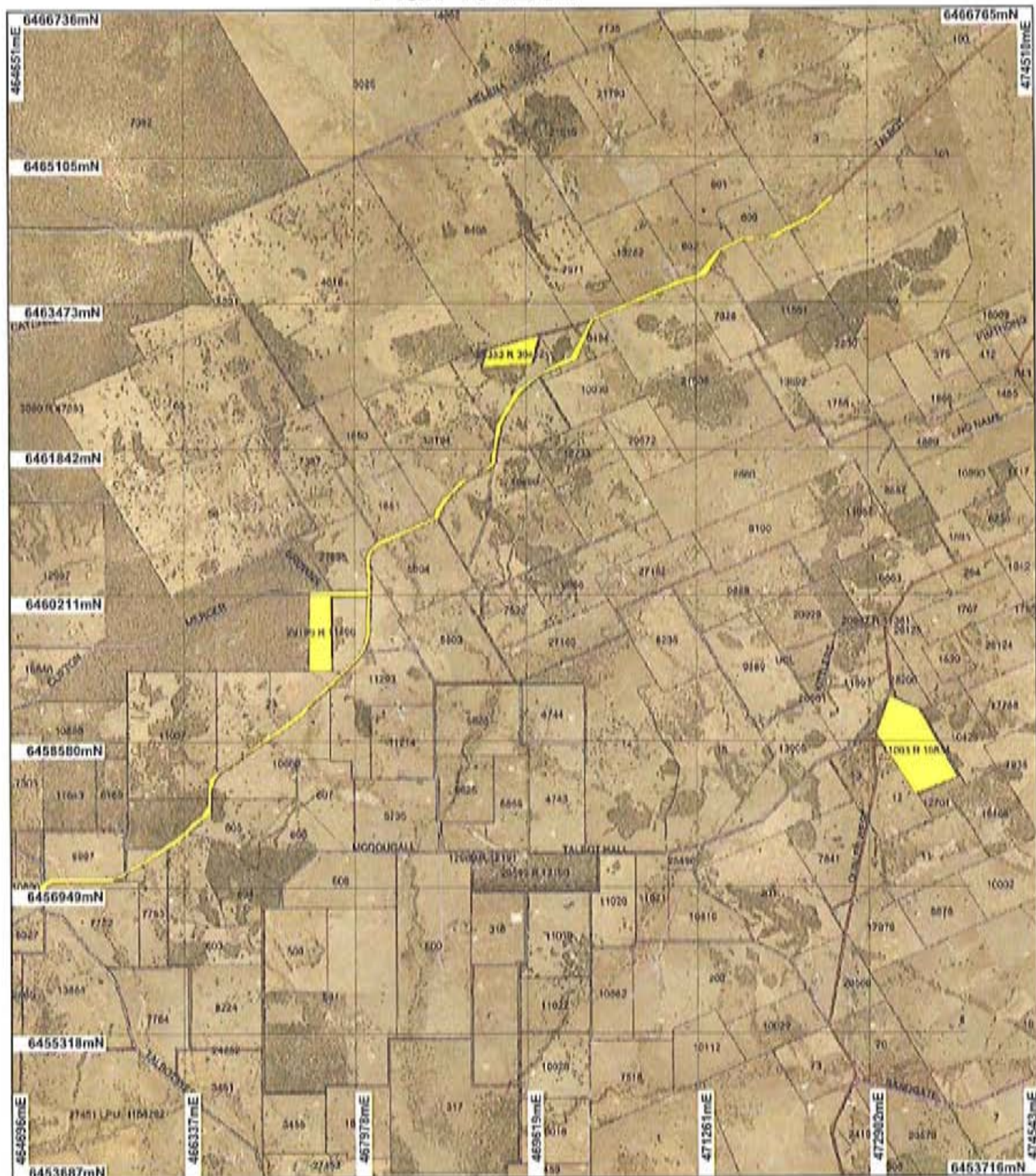


Department of Environment and Conservation

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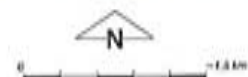
\* Project Data is denoted by asterisk. This data has not been quality assured. Please contact map author for details.



**Plan 1042/3b**

### LEGEND

- ☐ Cadastre for labelling  
 Road Centrelines  
 FW  
 HW  
 LRG  
 (cont)  
 LRS  
 MR  
 N  
 TR  
 Clearing Instruments  
 (cont)
- ☐ Areas Subject to Conditions  
☐ Areas Approved to Clear  
 Nonham to Orthomosaic -  
 Landgate 2003



Scale 1:57733  
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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\_\_\_\_\_  
Date 24/3/07

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.

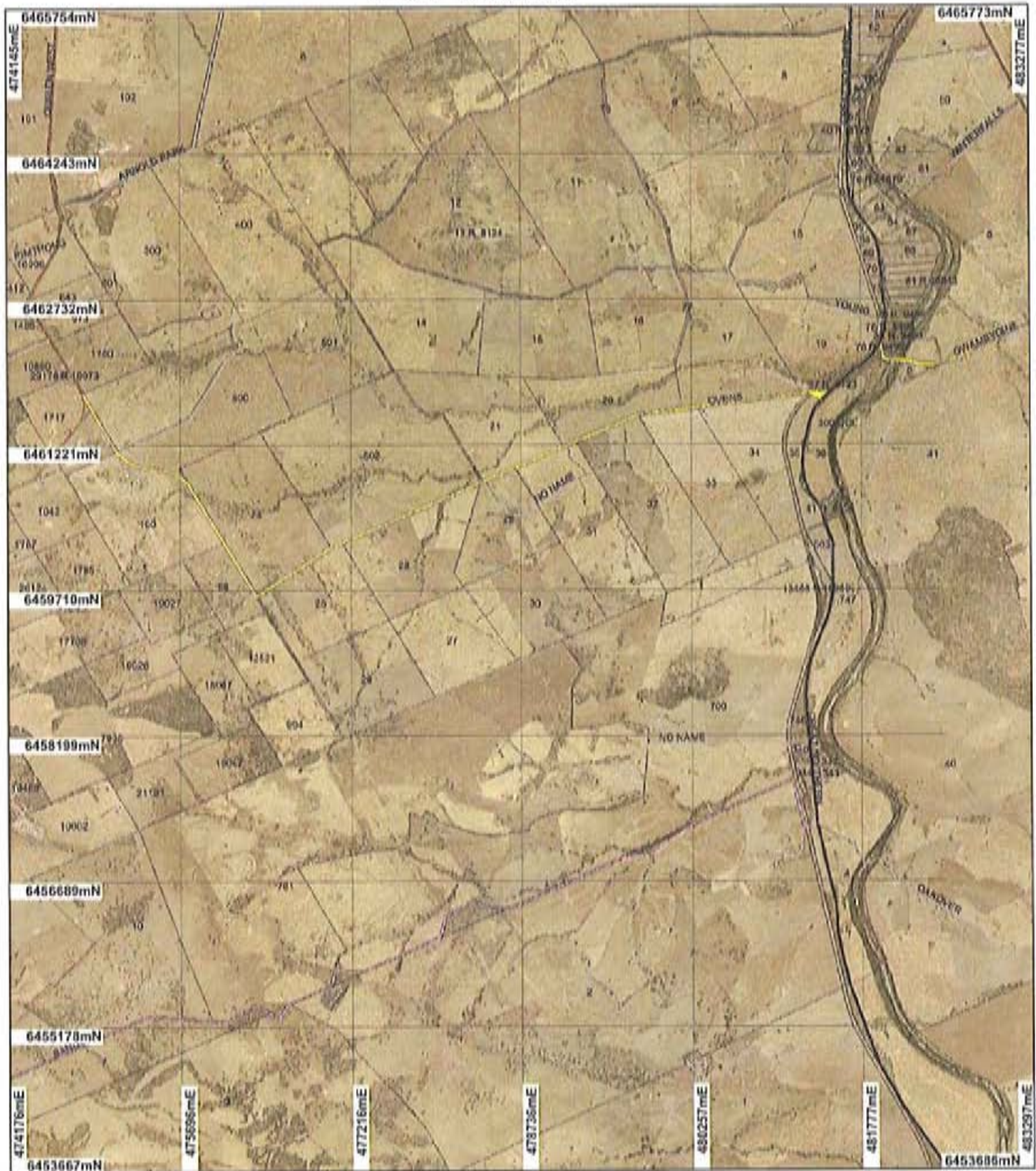
Department of  
Environment and Conservation

W.A. Conway, E. Fogarty / *Journal of Great Lakes Research* 36 (2010) 103–114

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



# Plan 1042/3c



## LEGEND

- ☐ Cadastre for labelling
- ☐ Road Centrelines
- ☐ FW
- ☐ HV
- ☐ LRO (1998)
- ☐ LRS
- ☐ MR
- ☐ N
- ☐ TR
- ☐ Clearing Instruments (1998)
- ☐ Areas Subject to Conditions
- ☐ Areas Approved to Clear
- ☐ Northern 1m Orthomosaic - Landgate 2003



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(Approximate when reproduced at A4)

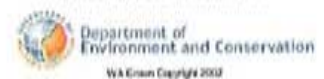
Geocentric Datum Australia 1994

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distortion or measurement inaccuracies.

*[Signature]* Date 26/3/09  
Kelly Finner

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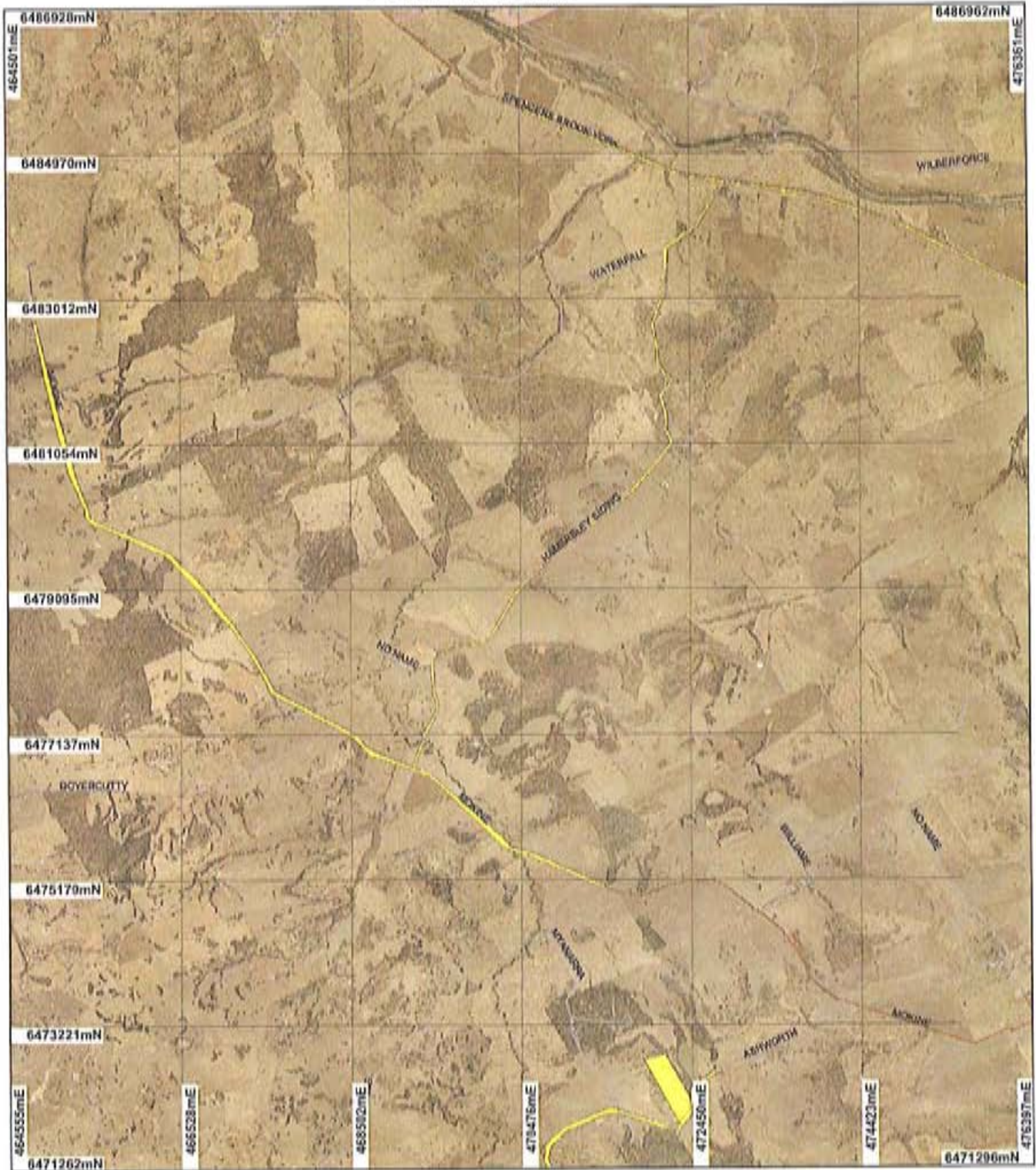
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confirmed with the data custodian acknowledged  
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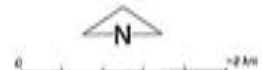


## Plan 1042/3d



### LEGEND

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 Cadastre for labelling  
 Road Centrelines  
 FW  
 HW  
 LRG  
 (cont)  
 LRS  
 MR  
 H  
 TR  
 Clearing Instruments  
 (cont)
- 
 Areas Subject to Conditions  
 Areas Approved to Clear  
 Northern In Orthomosaic -  
 Lentigale 2003



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(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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 Kelly Foubler

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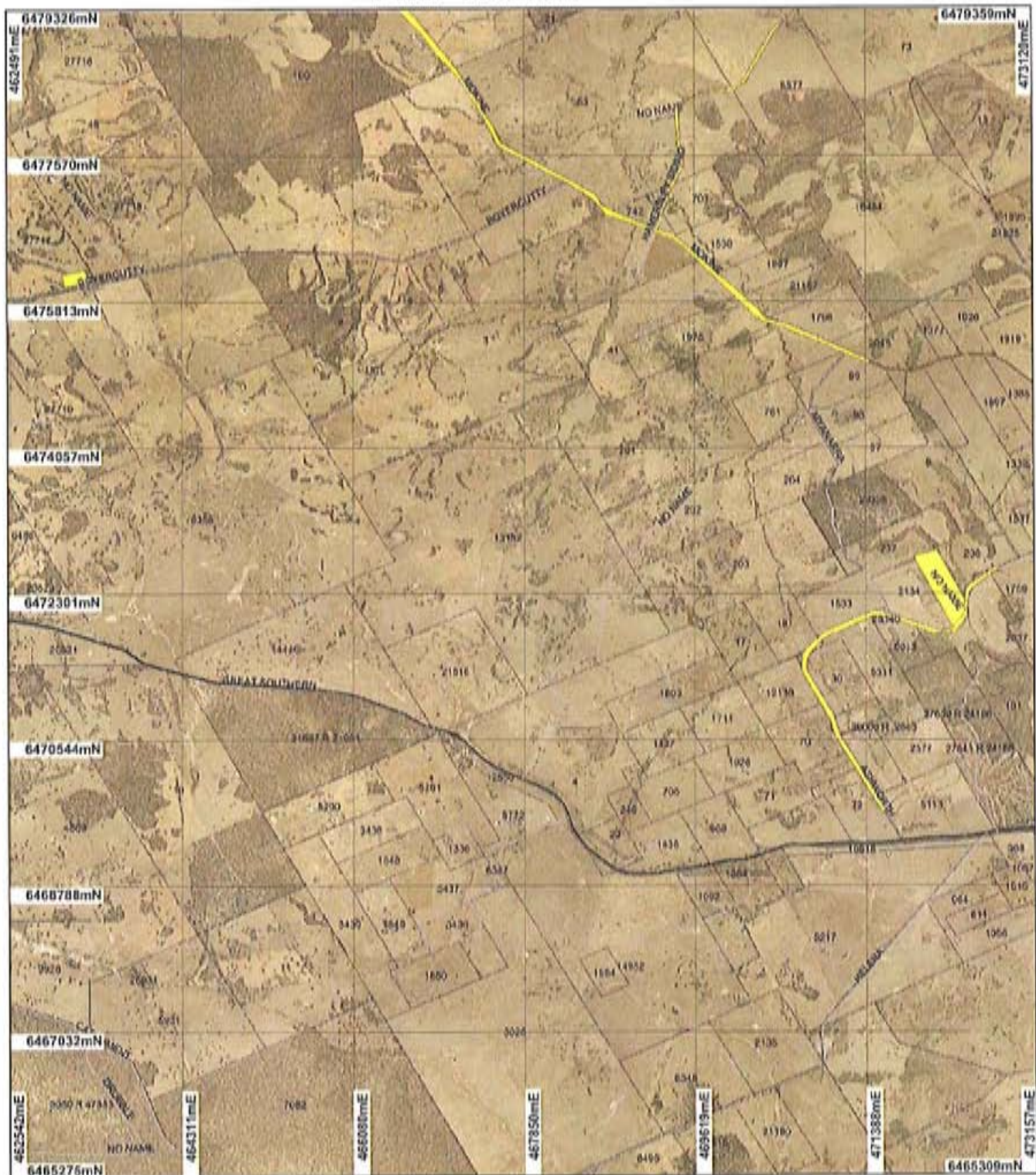
Department of  
Environment and Conservation

WA Green Exports 2008

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# Plan 1042/3e

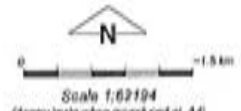


## LEGEND

- Cadastre for labelling
- Road Centrelines
- FW
- HY
- LRO
- (cont)

- LRS
- MR
- N
- TR
- Clearing Instruments
- (cont)

- Areas Subject to Conditions
- Areas Approved to Clear
- Northern 1m Orthomosaic - Landgate 2003



Scale 1:62194

(Approximate when reproduced at A4)

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*Kelly Faulkner* Date 24/3/07

Kelly Faulkner

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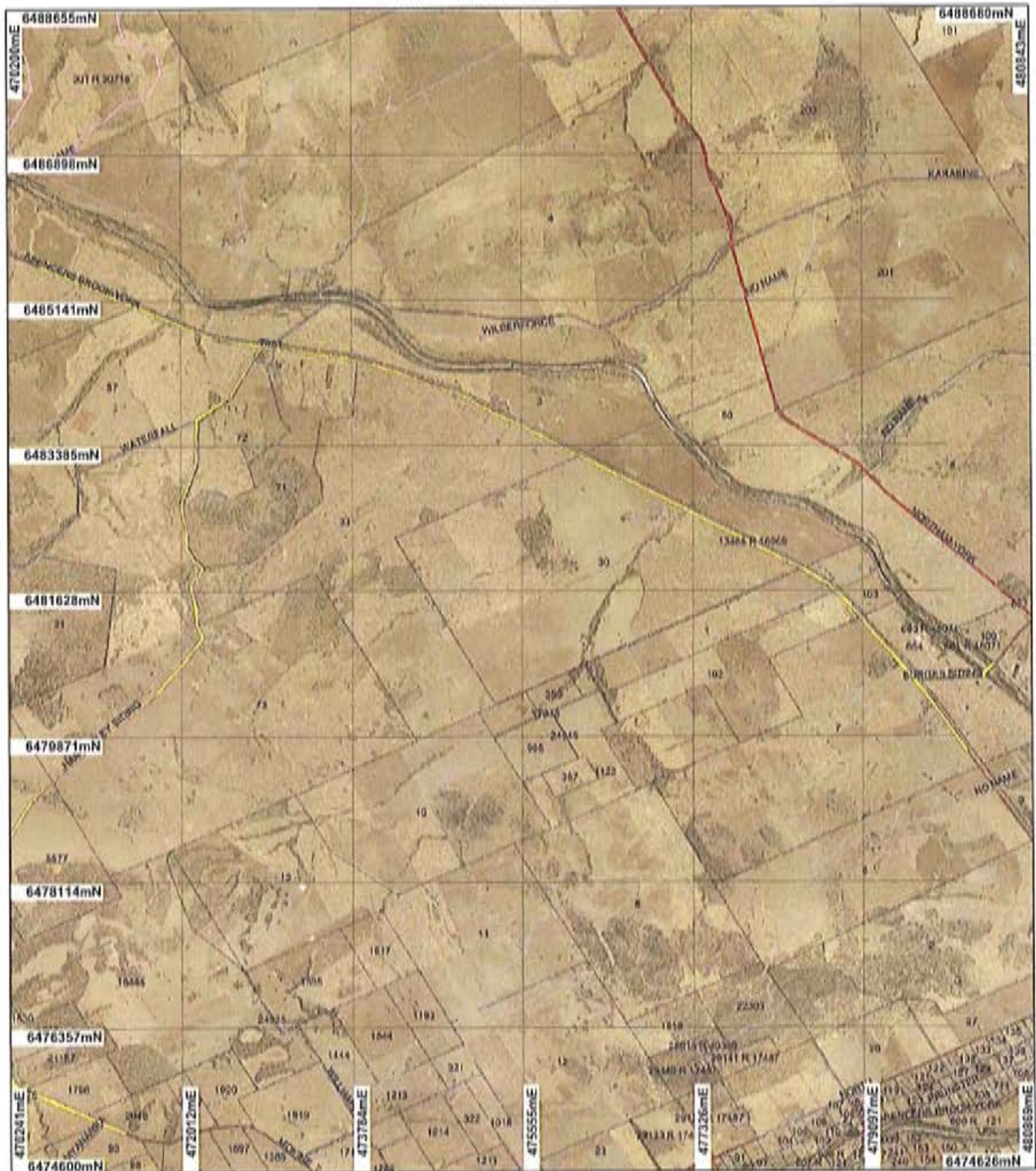


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# Plan 1042/3f



## LEGEND

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|---|---|---|
| <ul style="list-style-type: none"> <li>Cadastral for labelling</li> <li>Road Centrelines</li> <li>FW</li> <li>HY</li> <li>LRO (cont)</li> </ul> | <ul style="list-style-type: none"> <li>LRS</li> <li>MR</li> <li>R</li> <li>TR</li> <li>Clearing Instruments (cont)</li> </ul> | <ul style="list-style-type: none"> <li>Areas Subject to Conditions</li> <li>Areas Approved to Clear</li> <li>Northern to Orthomosaic - Landgate 2003</li> </ul> |
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Scale 1:62231

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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Kelly author

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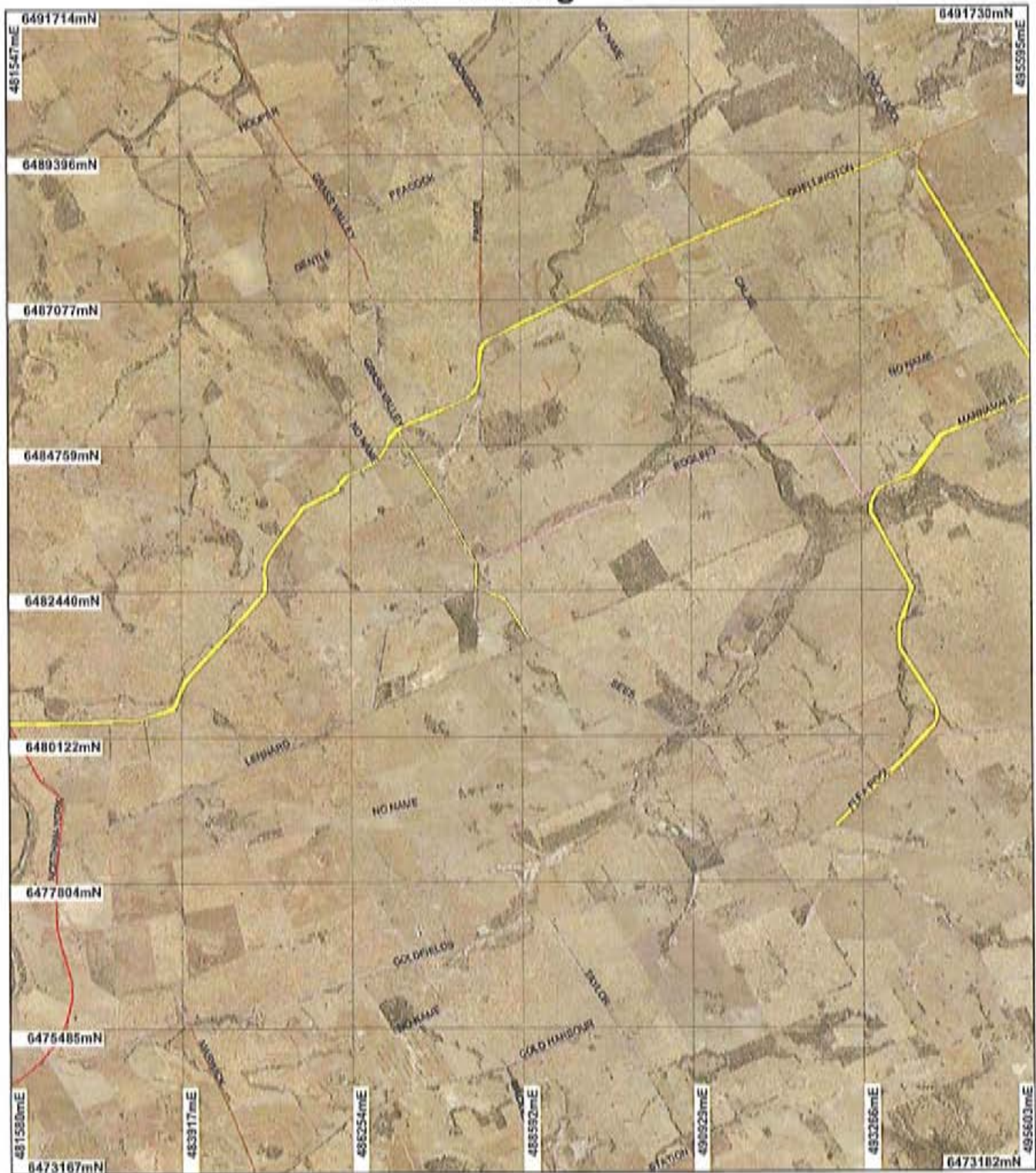
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## Plan 1042/3g



### LEGEND

- ☐ Cadastre for labelling  
Road Centrelines
-  FH  
 HY  
 LRO  
 LRS  
(cont)
-  MA  
 H  
 TR
- Clearing Instruments
-  Areas Subject to Conditions  
 Areas Approved to Clear

Northern 1m Orthomosaics -  
 Landgate 2003  
 Cunderdin 50cm Orthomosaics  
 - Landgate 2004



Geocentric Datum Australia 1994

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*K. Faulkner* Date 24/3/09

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

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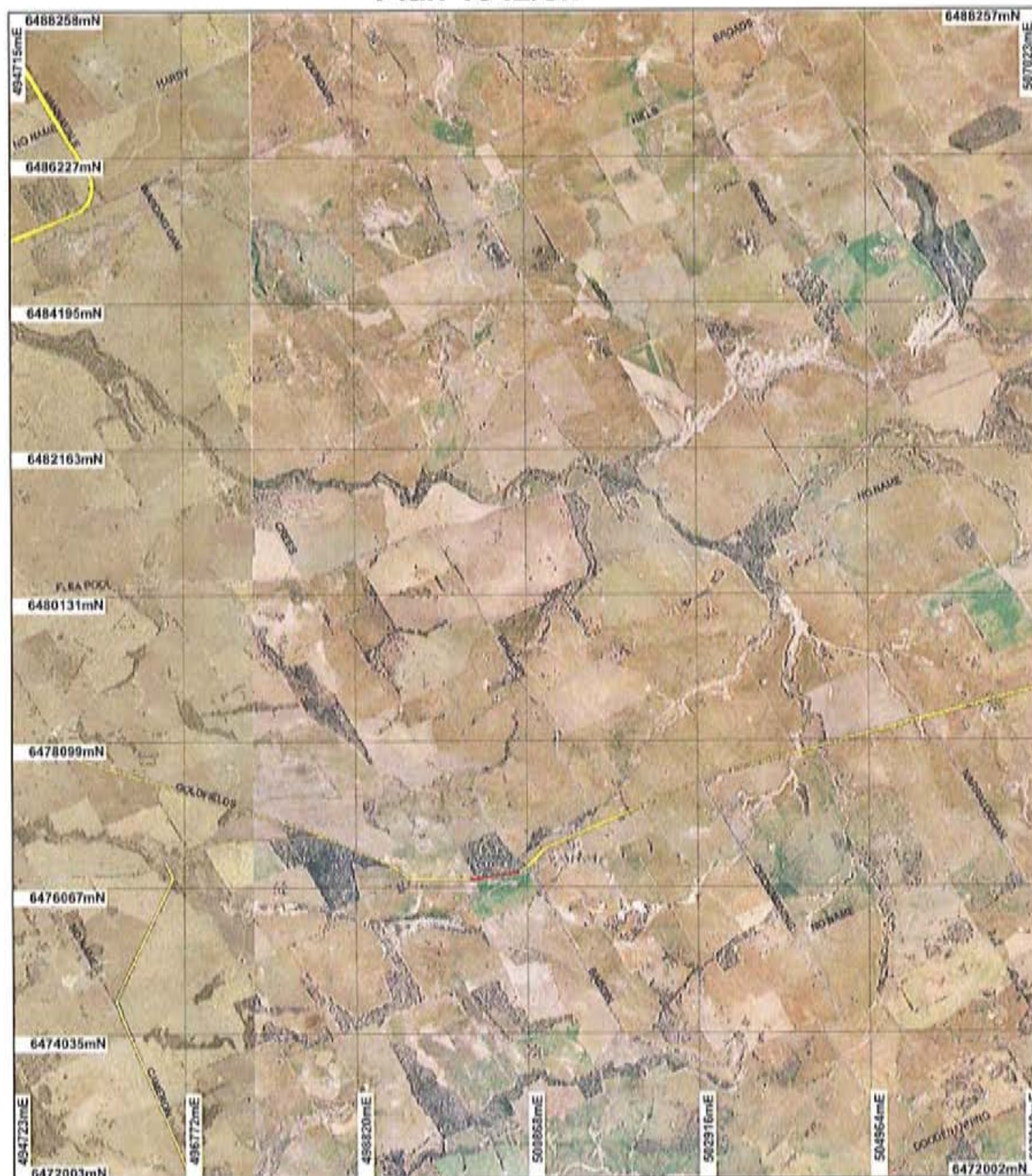
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## Plan 1042/3h



### LEGEND

- Cadastre for labelling**
- Road Centrelines**
- FW  
HV  
LRQ  
LRS  
(semi)
- MR  
H  
TR
- Clearing Instruments**
- Area Subject to Conditions  
Area Approved to Clear

Northam 1m Orthomosaic -  
Landgate 2003

Cunderdin 50cm Orthomosaic  
- Landgate 2004



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Geocentric Datum Australia 1994

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*[Signature]* Date 24/3/09

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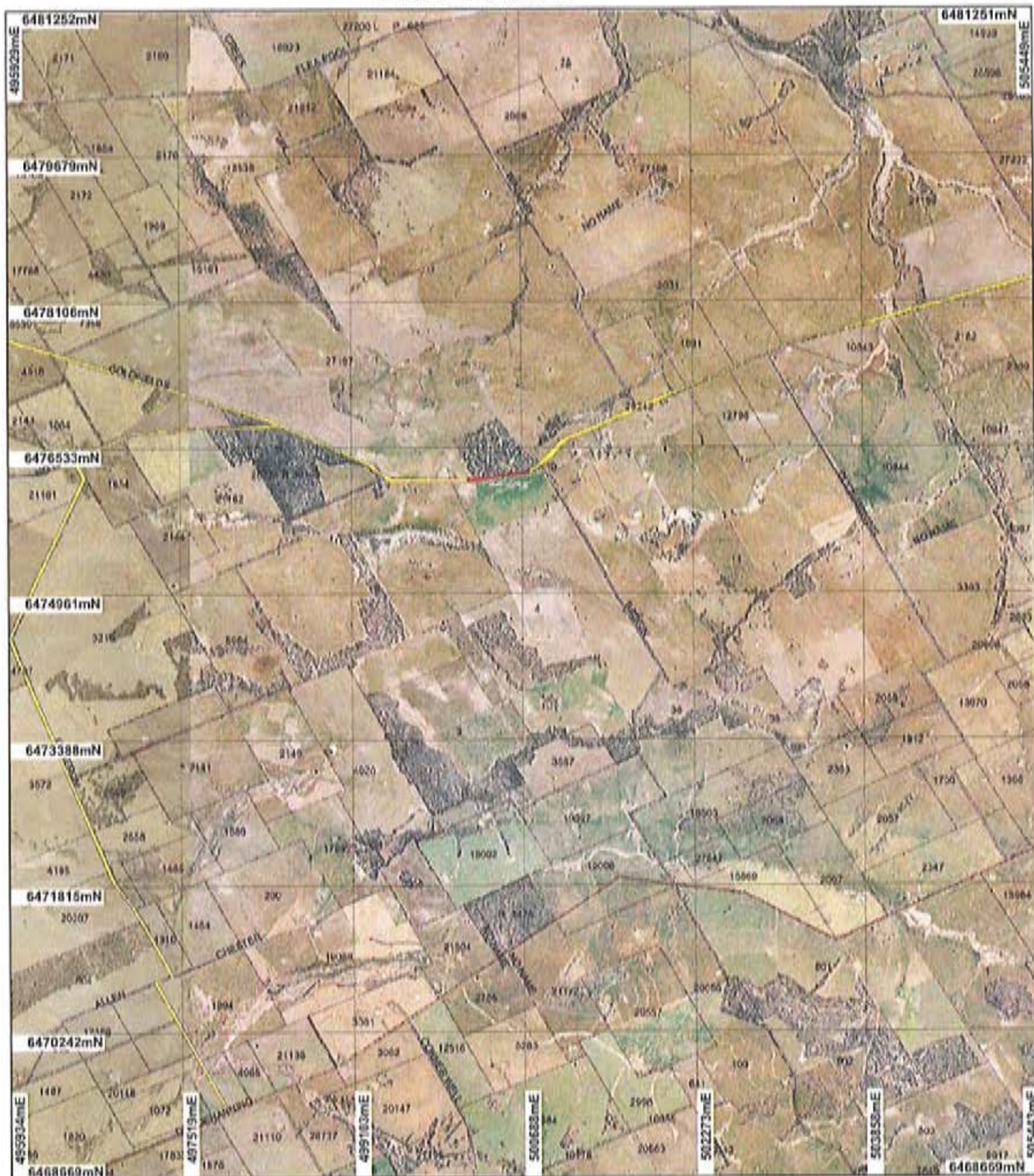
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# Plan 1042/3i



## LEGEND

- ☐ Cadastre for labelling
- ☐ Road Centrelines
- ☐ FW
- ☐ HY
- ☐ LRO
- ☐ LRS
- ☐ (1000)

- ☐ MR
- ☐ N
- ☐ TR
- ☐ Clearing Instruments
- ☐ Areas Subject to Conditions
- ☐ Areas Approved to Clear

Northern 1m Orthomosaic -  
Landgate 2003  
Cunderdin 50m Orthomosaic -  
Landgate 2004



Scale 1:55700  
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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*Kelly Faulkner* Date 24/3/09  
Kelly Faulkner

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Information derived from this map should be  
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by the agency acronym in the legend.



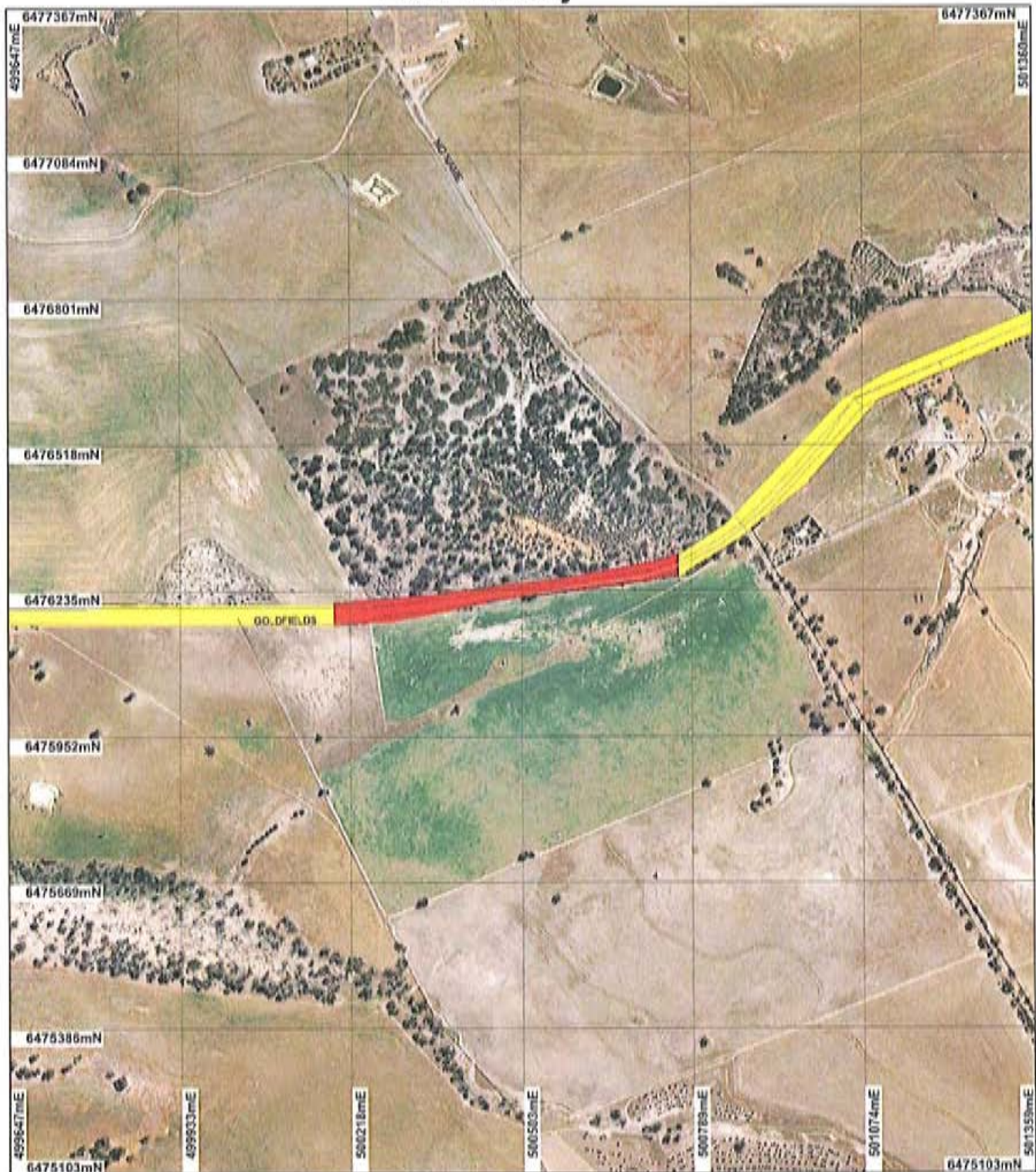
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# Plan 1042/3j



## LEGEND

- Clearing Instruments**
- Areas Subject to Conditions
  - Areas Approved to Clear
  - Cadastre for labelling
  - Road Centrelines (cont)

FW  
HY  
LRO  
LRS  
MR  
N  
(cont)

TR  
Northern 50m Orthomosaic -  
Landgate 2008  
Cunderdin 50m Orthomosaic -  
Landgate 2004



Scale 1:10022  
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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distortion or measurement inaccuracies

*Kelly Faulkner* 24/3/09  
Kelly Faulkner

Officer with delegated authority under Section 29 of  
the Environmental Protection Act 1986

Information derived from this map should be  
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# Plan 1042/3k



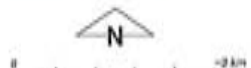
## LEGEND

### Clearing Instruments

- Areas Subject to Conditions
- Areas Approved to Clear
- Cadastra for labelling
- Road Centrelines (cont)

- FW
- HY
- LRQ
- LRB
- MR
- N (cont)

TR  
Northern 50cm Orthomosaic -  
Landgate 2008  
Cunderdin 50cm Orthomosaic -  
Landgate 2004



Scale 1:71008

Approximate when reproduced at A4

Geocentric Datum Australia 1994

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*Kelly Faulkner* Date *24/3/07*  
Kelly Faulkner

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**Plan 1042/3I**

### LEGEND

### Road Centrelines



20

42

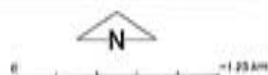
## Clearing Instruments

**Area Subject to Conditions**

 Area Approved to Clear

☐ Cadastral for labelling

Northern 50cm Orthomosaics -  
 Landgate 2006  
 Cunderdin 50cm Orthomosaics  
 - Landgate 2004



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Auth Date 24/3/09  
 Name: Auth

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 in the legend.

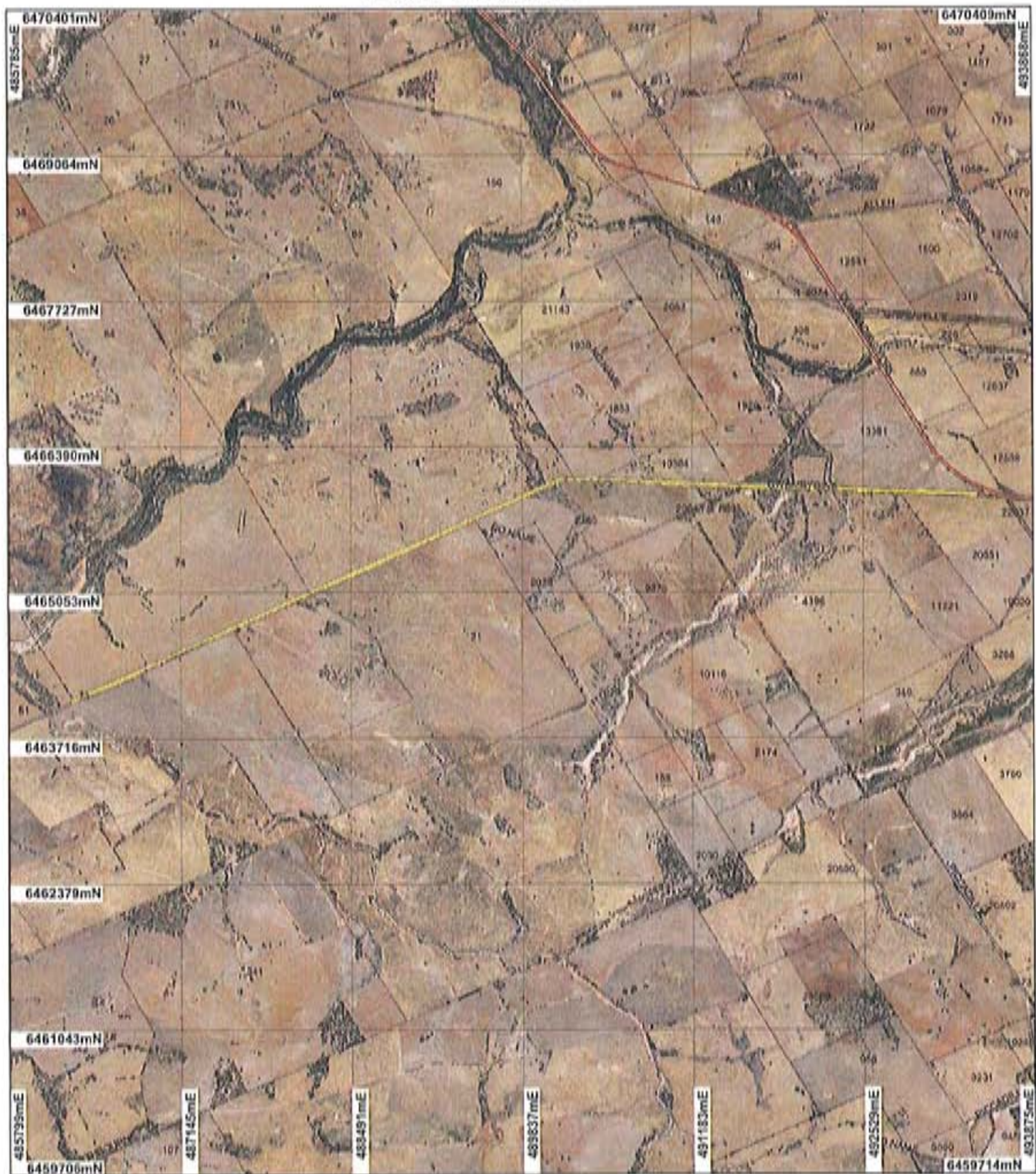
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# Plan 1042/3m



## LEGEND

### Road Centrelines

FW  
H  
LRO  
LRS  
MR  
(cont)

N

TR

Clearing Instruments

Area Subject to Conditions

Area Approved to Clear

Cadastra for labelling

Northam 50m Orthomosaic -  
Landgate 2008

Cunderdin 50m Orthomosaic -  
Landgate 2004



Scale: 1:47327  
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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Kerry Paulmer

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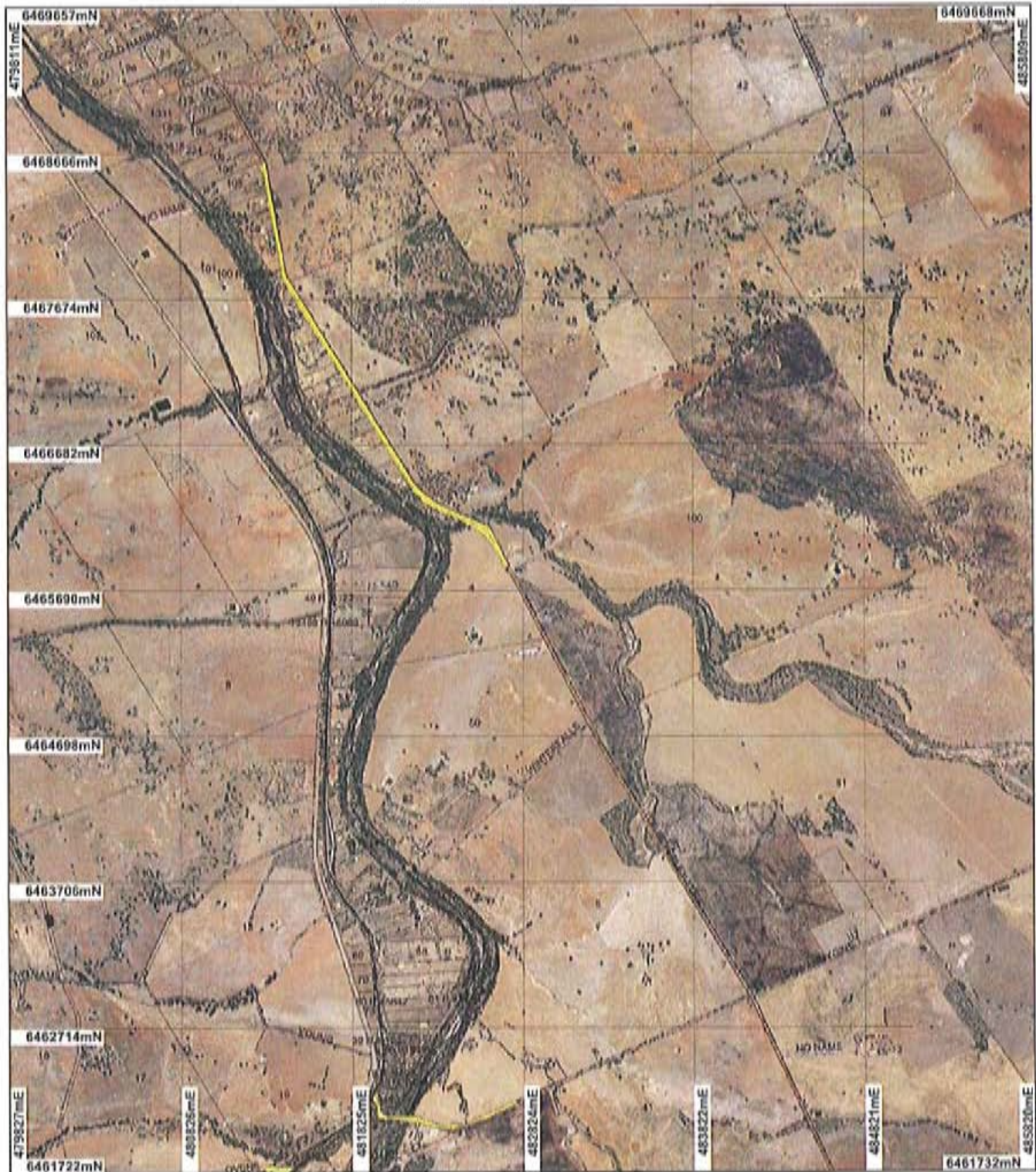
Department of  
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# Plan 1042/3n



## LEGEND

### Road Centrelines

- FW
- HY
- LRO
- LRS
- MR
- (cont)

- N
- TR
- Clearing Instruments
- Areas Subject to Conditions
- Areas Approved to Clear

- Cadastral for labelling
- Northern 50m Orthomosaic - Landgate 2009
- Cunderdin 50m Orthomosaic - Landgate 2004



Scale 1:35117

(Approximate when reproduced at A4)

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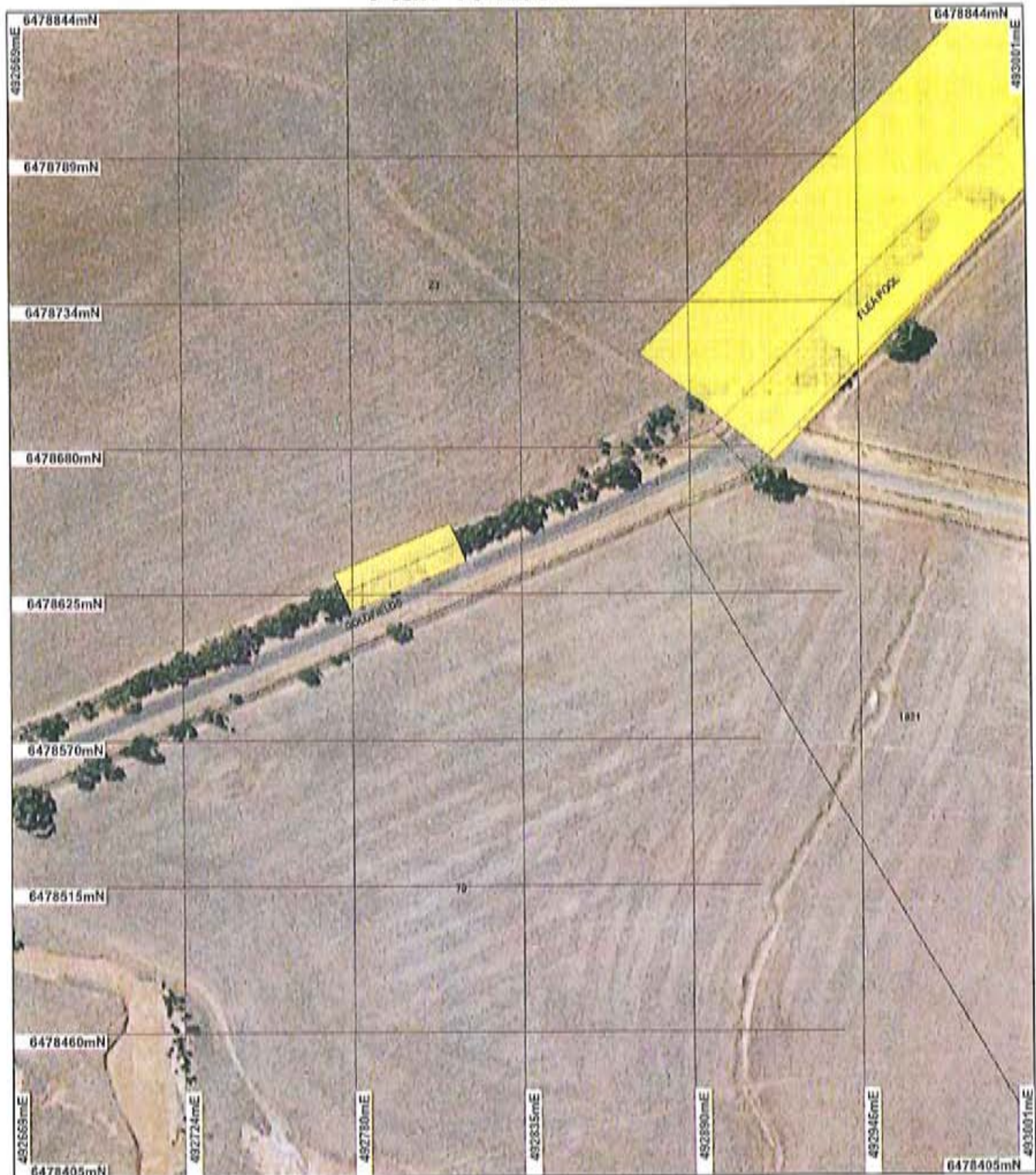
Department of Environment and Conservation

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# Plan 1042/3o



## LEGEND

### Road Centrelines

- FW
- HY
- LRQ
- LRA
- MR
- (dotted)

1A

Clearing Instruments

- Areas Subject to Conditions
- Areas Approved to Clear

Cadastral for labelling

- Northern 50m Orthomosaic - Landgate 2006
- Southern 50m Orthomosaic - Landgate 2004



Scale 1:1944

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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## 1. Application details

### 1.1. Permit application details

Permit application No.: 1042/3  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Shire of York

### 1.3. Property details

Property: ROAD RESERVE ( MALEBELLING 6302)  
Local Government Area: Shire Of Northam & Shire Of Qualradling & Shire Of York  
Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
15	4	Mechanical Removal Mechanical Removal	Road construction or maintenance Road construction or maintenance

## 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
Beard vegetation association 352: Medium woodland; York gum	The area under application is for road reserves and gravel pits within the Shire of York. The shire is commencing a road widening programme and require gravel from land vested for the use of gravel extraction.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The condition of vegetation under application was inspected through two site inspections that covered all roads and gravel pits under application. TRIM ref DOC 6951 and DOC 9117. The site inspection observed that east of the town of York the vegetation was in a much more degraded condition than areas west of the town. Salinity, and its effects, were more obvious in the east and there was little remnant vegetation in this area. Roadsides provide the main corridors of vegetation, with the land in between being heavily cleared. The western region showed more structure, diversity and regeneration.
Beard vegetation association 4: Medium woodland; marri and wandoo			
Beard vegetation association 1049: Medium woodland; wandoo, York gum, salmon gum, morrell and gimlet			
Beard vegetation association 3: Medium forest; jarrah-marri	A vegetation condition of 'Good' (keighery, 1994) is used in this assessment as an average between vegetation that presents as completely degraded and some that presents as very good.		
Beard vegetation association 694: Shrublands; scrub-heath on yellow sandplain			
banksia-xylocarpum alliance in the Geraldton Sandplain & Avon-Wheatbelt Regions	Along the roadsides the vegetation is predominantly mature trees such as, eucalypts, casuarinas, acacia's and banksia. Gravel pits held a more diverse structure with all three vegetative stories present.		
Beard vegetation association 946: Medium woodland; wandoo			
Beard vegetation association 551: Shrublands Allocasuarina campestris thicket (Shepherd et al. 2001; Hopkins et al. 2001).			
Mattiske MI: Open woodland of Eucalyptus wandoo over Acacia acuminata with some Eucalyptus loxophleba on valley slopes, with low woodland of Allocasuarina huegeliana on or near			



shallow granite outcrops in arid and perarid zones.

Mattiske Pn: Open forest of *Eucalyptus marginata* subsp. *thalassica*-*Corymbia calophylla* on slopes and open woodland of *Eucalyptus wandoo* with some *Eucalyptus patens* on the lower slopes in semiarid and arid zones.

Mattiske S: Mosaic of low open woodland of *Melaleuca preissiana*-*Banksia littoralis*, closed scrub of *Myrtaceae* spp., closed heath of *Myrtaceae* spp. and sedgelands of *Baumea* and *Leptocarpus* spp. on seasonally wet or moist sand, peat and clay soils on valley floors in all climatic zones.

Mattiske Wl: Mixture of woodland of *Eucalyptus rudis*-*Melaleuca raphiophylla*, low forest of *Casuarina obesa* and tall shrubland of *Melaleuca* spp. on major valley systems in arid and perarid zones.

Mattiske Y6: Woodland of *Eucalyptus wandoo*-*Eucalyptus accedens*, less consistently open forest of *Eucalyptus marginata* fs24 subsp. *thalassica*-*Corymbia calophylla* on lateritic uplands and breakaway landscapes in arid and perarid zones.

Mattiske G: Mosaic of open forest of *Eucalyptus marginata* subsp. *marginata* (humid zones) and *Eucalyptus marginata* subsp. *thalassica* (semiarid to perarid zones) on the sandy-gravels, low woodland of *Banksia attenuata* on the drier sandier sites (humid to perarid zones) with some *Banksia menziesii* (northern arid and perarid zones) and low open woodland of *Melaleuca preissiana*-*Banksia littoralis* on the moister sandy soils (humid to perarid zones).

Mattiske CK: Woodland of *Eucalyptus wandoo* with mixtures of *Eucalyptus patens*, *Eucalyptus marginata* subsp. *thalassica* and *Corymbia calophylla* on the valley slopes in arid and perarid zones.

### 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

A site inspection shows that most of the roads under application range from 'completely degraded to good'



(Keighery, 1994). The gravel pit areas range from good to very good. The Shire of York displays a greater area of vegetation and diversity within that vegetation to the west of the town of York than it does to the east, with the eastern section of the Shire being mass cleared, severely degraded and saline.

Majority of the roads under application in the eastern area had little to no understorey, little to no mid-storey with mature trees forming the upper-storey. Very little diversity was obvious. However, as the roadside vegetation was often all that remained within vegetation communities that have only 15% and 3% remaining, it has potential diversity value as a result of the low level of vegetation remaining in surrounding areas.

To mitigate any loss of biodiversity within the road reserves and surrounding areas, conditions have been imposed on the permit related to flora and fauna management. Additionally, due to the highly cleared nature of the eastern part of the Shire, a condition has been imposed to offset the values of the area to be cleared.

**Methodology** Site visit, 2006  
GIS Databases:  
- CALM Managed Lands

**(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**  
Numerous road reserves under application contain large hollow logs and good quality habitat trees. The trees within the road reserve are used by indigenous birds, as observed on a site visit. As parts of the Shire are heavily cleared, the distance between treed areas can be quite large. Removal of trees within one road reserve area would considerably increase the distance between these remnant patches. Due to the remnant vegetation occurring in small, fragmented pockets, any remaining vegetation provides important habitat for local fauna populations. Therefore the proposed clearing may provide a significant habitat for indigenous fauna.  
  
To ensure any threatened species are identified and managed accordingly, a condition has been imposed on the permit to ensure an inspection is undertaken by a fauna specialist to identify the presence of any threatened species within the areas proposed for clearing.

**Methodology** Site visit, 2006

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

**Comments** **Proposal may be at variance to this Principle**  
There are over 40 occurrences of Declared Rare Flora within a 10km radius of the proposed clearing areas, consisting of the following seven species:  
Thomasia montana  
Acacia volubilis  
Acacia aphylla  
Lechenaultia loricata  
Hakea aculeata  
Dryandra aurantia  
Thomasia glabripetala  
Of these species, Thomasia glabripetala, occurs within 60 metres of one of the proposed areas to be cleared (Goldfield Rd) and Hakea aculeata (1.5km from Goldfield Rd) is known from Herbarium records to occur in road reserves. In addition to this, DRF and the proposed clearing sites are found within the same vegetation types. Therefore the clearing may be at variance to this principle.  
  
There are also over 50 occurrences of priority flora within a 10km radius of the proposed clearing, predominantly within lands vested for conservation purposes.  
  
To ensure all DRF and priority species are identified and managed accordingly, a condition will be placed on the permit to ensure surveys are undertaken by a flora specialist to identify the presence of any DRF or priority species within the areas proposed for clearing. Where DRF species are identified the Shire will be required to submit the records to the Department of Environment and Conservation ensuring no species are removed unless approved by the CEO.

**Methodology** Western Australia Herbarium, 1998  
GIS Databases:  
-Declared Rare and Priority Flora List - CALM18/08/03  
-Clearing Regulations - Environmentally Sensitive Areas - DOE 08/03/05



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

There are two known occurrences of a priority 1 Threatened Ecological Community (TEC) within a 10km radius of the application area.

The priority 1 TEC "Deep pools of the Avon Botanical District" is described as deep pools and natural braided sections of fresh to brackish rivers of the Avon Botanical District. Elongated occurrence measuring ~2km long by 30m wide surrounded by cleared farmland. The community has been highly modified due to sedimentation and salinity. DEC records indicate five occurrences of this ecological community, two of which occur on the Avon River.

The priority TEC occurs within the same vegetation type as the proposed areas to be cleared. Clearing in the vicinity of the bridge that traverses the Avon River on Gwambygne Road may have an impact on the environmental values of this community.

As a result, a condition has been imposed on the permit requiring a survey of the Gwambygne Road bridge to be undertaken by an environmental specialist to identify potential impacts on this priority TEC, particularly by hydrological impacts. The Shire will be required to submit a report to the Department of Environment and Conservation and is not permitted to clear this area unless approved by the CEO.

**Methodology** -Threatened Ecological Communities CALM12/04/05  
-Clearing Regulations - Environmentally Sensitive Areas - DOE 08/03/05  
-Threatened Plant Communities - DEP 06/95

**(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 proposed clearing occurs within the Avon Wheatbelt IBRA Region, where the area of vegetation remaining is 16%, and the area of vegetation remaining within the intensive landuse zone is 10.3% and the Jarrah Forest which is 58.7% remaining. The vegetation extent in the Shire of York is 30.8% (Shepherd et al. 2001).

The State Government is committed to the National Objectives and Targets for Biodiversity Conservation which includes a target that prevents the clearance of ecological communities with an extent below 30% of that present Pre-European settlement. Several of the vegetation complexes under application are below the minimum threshold of 30% representation and three areas of clearing fall within Beard vegetation type 1049 of which there remains only 3.6% remaining.

To mitigate any potential impacts of the clearing on remnant vegetation, while acknowledging the need to maintain and upgrade roads, the proposed clearing will be carried out in accordance with a condition imposed on the permit requiring that clearing of vegetation be avoided, and where this is not possible, minimised. In addition, to address the loss of vegetation within a highly cleared landscape, a condition has been imposed to offset the values of the area to be cleared.

Vegetation Type	Pre-European Veg (ha)	Current Veg (ha)	% remaining	Status
Mattiske				
Ck	1,338,992	573,908	42.9	Depleted
G	272,624	218,911	80.3	Least Concern
Mi	1,345,524	356,512	26.5	Vulnerable
Pn	1,666,912	1,343,956	80.6	Least Concern
S	536,628	422,553	78.7	Least Concern
Wi	234,849	48,193	20.5	Vulnerable
Y6	1,583,884	814,609	51.4	Least Concern
Beard Unit				
4	1,056,783	248,065	23.5	Vulnerable
37	39,337	22,951	58.3	Least Concern
352	71,8430	114,193	15.9	Vulnerable
551	301,298	69,554	23.1	Vulnerable
694	345,975	60,348	17.4	Vulnerable
1004	9,758	3,567	36.6	Depleted
1049	833,688	30,148	3.6	Endangered

**Methodology** Department of Natural Resources and Environment (2002)  
EPA (2000)  
Shepherd et al (2001)



Hopkins et al (2001)  
 GIS Databases:  
 - Pre-European Vegetation - DA 01/01  
 - Mattiske Vegetation - CALM 24/03/98  
 - Interim Biogeographic Regionalisation of Australia - EA 18/10/00

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

The area under application includes fringing native vegetation in the policy area defined in the Environmental Protection (Swan and Canning Rivers) Policy 1998. The purpose of the policy is to restore, enhance, preserve and protect environmental quality, ecological processes and ecological integrity of the Swan and Canning Rivers). Under section 51P, the CEO must refuse to grant a clearing permit if the CEO considers that the associated effect on the environment would be inconsistent with any approved policy. The areas to be cleared in the vicinity of bridges are small have been affected by previous construction activities.

To mitigate any effects resulting from clearing native vegetation, the requirement for offsets includes the environmental values of riparian vegetation.

**Methodology EPP - SC, 1998**

GIS Databases:  
 -Hydrography, linear - DOE 01/02/04  
 -Geomorphic wetlands - Swan Coastal Plain - DOE 15/09/04  
 -EPP, Areas - DEP 06/95  
 -EPP, Lakes - DEP 28/07/03  
 -Clearing Regulations - Environmentally Sensitive Areas - DOE08/03/2005

**(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 proposed clearing for gravel extraction and roadside upgrades may cause some short term land degradation issues related to localised flooding and soil erosion during works. However, these issues should be minimal as the existing roads have in place roadside infrastructure to prevent land degradation associated with roads ie. table drains and culverts.

**Methodology GIS Databases:**

- Soils, Statewide - DA 11/99  
 - Groundwater Salinity, Statewide - 22/02/00

**(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**

Within a 10km radius of the proposed clearing areas are the following Conservation Areas:

- Wandoo National Park
- Mundaring State Forest
- Wambyn Nature Reserve
- St Ronans Nature Reserve
- Wallaby Hills Nature Reserve
- Morlock Nature Reserve
- Mokine Nature Reserve
- Woottating Nature Reserve

A site visit (Trim ref:DOC 6951) showed that the majority of vegetation proposed to be cleared was of a 'degraded' condition (Keighery, 1994). None of the proposed clearing sites is part an ecological linkage with any of the conservation areas.

Most sites do not provide a buffer from edge effects with the exception of one gravel pit located on Talbot Road. This site is located on an eastern border of Wandoo National Park and some of the areas to be cleared may provide a buffer from weed and predator intrusion. A condition requiring the rehabilitation of gravel pits has been imposed.

**Methodology Keighery, 1994**

GIS Databases:  
 -CALM Managed Lands and Waters - CALM 01/07/05  
 -Register of National Estates - EA 28/01/03



**(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**  
With an average annual rainfall of 400mm - 700mm and an annual evaporation rate of 2,000mm - 2,200mm there is likely to be little surface flow during normal seasonal rains. It is only during major rainfall events that there would be significant surface flow and this flow during these events tends to be relatively fresh. The Mundaring Weir Catchment and Avon River becomes a medium for the collection and transportation of the major flows.  
  
With high annual evaporation rates and low annual rainfall there is little recharge into regional groundwater table, which in this area is between 7000 and 35000 TDS and is considered to be brackish to extreme saline. The proposed clearing is unlikely to have an impact on regional groundwater considering the small size and linear nature of the proposed clearing.

**Methodology**      Site visit, 2006  
GIS Databases:  
- Evaporation Isopleths - BOM 09/98  
- Isohyets - BOM 09/98  
- Groundwater Salinity, Statewide - 22/02/00  
- Hydrography, linear - DOE 01/02/04  
- Hydrographic Catchments, Catchments - DOE 23/03/05

**(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**  
With an average annual rainfall of 400mm - 700mm and an annual evaporation rate of 1,800mm - 2,200mm there is little surface flow during normal seasonal rains. It is only during major rainfall events that there is a likelihood of flooding; the river systems (predominantly the Avon River) of the region are designed to compensate and sustain floodwaters in these instances.

**Methodology**

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

**Comments**  
The Department advises that the proponent contact the relevant authorities to seek advice on whether or not the road works will impact upon the Aboriginal Sites of Significance listed within the area under application.

There is no RIWI Act Licence or Works approval required for the proposed works

**Methodology**

**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 is, may be at variance to Principle (a), (b), (c), (d), (e), (f), (h), and is not likely to be at variance to the remaining clearing Principles.

**5. References**

- EPA (2000) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. Environmental Protection Authority, Western Australia.
- Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMScience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.
- 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.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001a) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia (updated 2005).
- Site Inspection Report, 10th October 2006 and 1st November 2006
- Western Australian Herbarium (1998-). FloraBase - The Western Australian Flora. Department of Environment and



## 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
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)