



## CLEARING PERMIT

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

<b>Purpose Permit number:</b>	CPS 3095/1
<b>Permit holder:</b>	City of Albany
<b>Duration of Permit:</b>	18 July 2009 – 18 July 2017

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 upgrades.

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

Down Road Reserve, Drome 6330 (0.28ha)  
Kronkup North Road Reserve, Kronkup 6330 (0.16ha)  
Scrub Bird Road Reserve, Torndirrup 6330 (0.06ha)  
Takenup Road Reserve, Napier 6330 (0.04ha)  
Tennessee Road Reserve, Lowlands 6330 (0.08ha)  
Thomas Road Reserve, Kronkup 6330 (0.16ha)  
Wheeldon Road Reserve, Kalgan 6330 (0.05ha)  
Lot 6984 on Plan 195519, Redmond West 6327 (0.10ha)  
Unallocated Crown Land PIN 591481, Lowlands 6330 (0.07ha)

#### **3. Area of Clearing**

The Permit Holder must not clear more than 1 hectare of native vegetation within the area shaded yellow on attached Plans 3095/1a, 3095/1b, 3095/1c, 3095/1d, 3095/1e, 3095/1f, 3095/1g and 3095/1h.

#### **4. Clearing authorised**

Clearing authorised under this Permit must be completed by 18 July 2014, being five years from the date from which this Permit becomes valid.

#### **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.

## PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

### 7. 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.

### 8. 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) shall not move soils in wet conditions;
- (c) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (d) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

### 9. Flora management

- (a) Prior to undertaking any clearing within Down Road Reserve (Drome, 6330), the site shall be inspected by a *flora specialist* for the presence of rare flora listed in the *Wildlife Conservation (Rare Flora) Notice 2 (2008)* and *priority flora taxa*.
- (b) Where rare flora or *priority flora taxa* are identified in relation to condition 9(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.

### 10. Retain vegetative material and topsoil, revegetation and rehabilitation

- (a) The Permit Holder shall retain the vegetative material and topsoil removed by clearing within Wheeldon Road Reserve (Kalgan 6330) and stockpile the vegetative material and topsoil in an area that has already been cleared.
- (b) Within 12 months of the area no longer being required for the purpose of a carriage way, the Permit Holder must *revegetate* and *rehabilitate* 0.05ha within the shaded red on attached Plan 3095/1h by:
  - (i) *ripping* the ground on the contour to a depth of 500 millimetres to relieve soil compaction;
  - (ii) laying the vegetative material and topsoil retained under condition 10(a) on the cleared area;

- (iii) 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
  - (iv) ensuring only *local provenance* seeds and propagating material are used to *revegetate* and *rehabilitate* the area.
- (c) Within twelve months of undertaking *revegetation* and *rehabilitation* in accordance with condition 10(b) 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 10(c)(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 10(b)(ii) and (iii) of this Permit.

### **PART III – OFFSETS**

#### **11. Offsets**

The Permit Holder must develop and implement an *offset* in accordance with conditions 11(a) and 11(b) of this Permit for clearing of native vegetation identified as requiring an *offset* in the *decision report* and indicated in Plan 3095/1i.

- (a) Determination of *offsets*:
- (i) 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 11(b) of this Permit;
  - (ii) 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*;
  - (iii) clearing may not commence until and unless the CEO has approved the *offset proposal* to which the clearing relates;
  - (iv) the Permit Holder shall implement the *offset proposal* approved under condition 11(a)(iii); and
  - (v) 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*.

## **PART IV – RECORD KEEPING AND REPORTING**

### **12. Records must 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).
- (b) In relation to flora management pursuant to condition 9 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 the *revegetation* and *rehabilitation* of areas pursuant to condition 10 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*.
- (d) In relation to the *offset* of areas pursuant to condition 11:
  - (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).

### **13. 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 12 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 18 April 2017, the Permit Holder must provide to the CEO a written report of records required under condition 12 of this Permit where these records have not already been provided under condition 13(a) of this Permit.

### **Definitions**

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

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

**decision report** means the decision report outlining the assessment of CPS 3066/1.

**Department** means the Department of Environment and Conservation (Western Australia);

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

**direct offsets** 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);

**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;

**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;

**Keighery scale** means the vegetation condition scale described in *Bushland Plant Survey: A Guide to Plant Community Survey for the Community (1994)* as developed by B.J. Keighery and published by the Wildflower Society of WA (Inc). Nedlands, Western Australia;

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

**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;

**offset proposal** means an *offset* determined by the Permit Holder in accordance with condition 11 of this Permit;

**offset/s** means an offset required to be implemented under Condition 11 of this Permit;

**optimal time** means the period from April to May for undertaking *direct seeding*, and the period from May to June for undertaking *planting*;

**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 *Department's Declared Rare and Priority Flora List for Western Australia* (as amended);

**regenerate/ed/ion** means *revegetation* that can be established from in situ seed banks contained either within the topsoil or seed-bearing *mulch*;


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

*remedial action/s* means, for the purpose of this Permit, any activity that is required to ensure successful establishment of an approved *offset*, and may include a combination of soil treatments and *revegetation*.

*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;

*ripping* means to scarify or scratch the soil without turning it over;

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



Keith Claymore  
A/ ASSISTANT DIRECTOR  
NATURE CONSERVATION DIVISION

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

18 June 2009

# Plan 36095/1a



## LEGEND

- Clearing Instrument
- Consolidation
- DEC Regions
- Albany Mount Banks
- Landgate 2002



0 200 m

Scale 1:7601

(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.

*Kath Chapman* Date *18/6/09*  
K Claymore

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

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

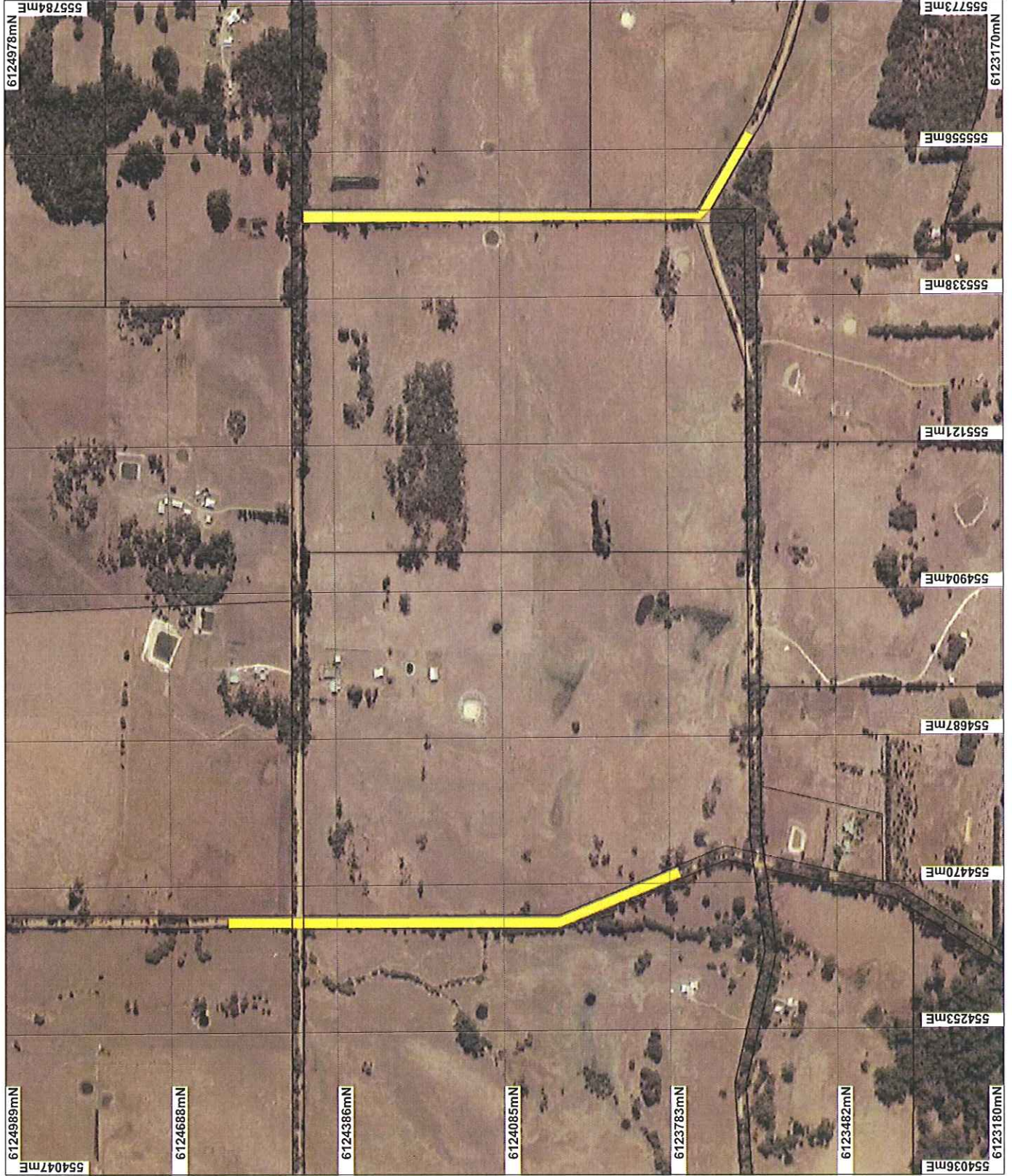
Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



Department of Environment and Conservation

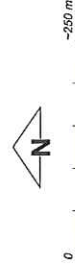
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# Plan 3095/1b



## LEGEND

- Closing Instrument
- Albany Mount Banks Landgate 2002



Scale 1:8542  
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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*K Claymore*, Date *12/6/09*

K Claymore

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

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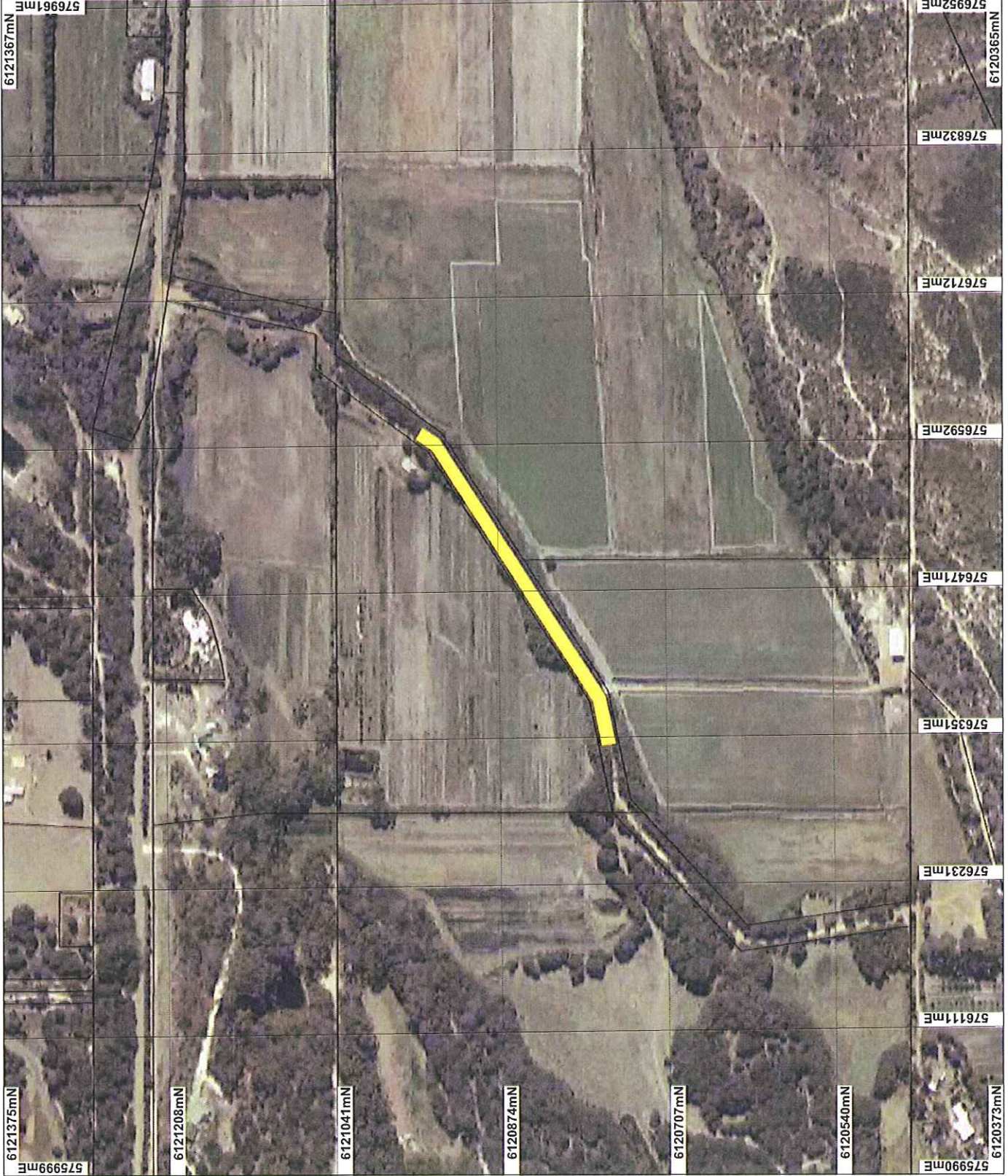


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# Plan 3095/1c



## LEGEND

- Engineering Instrument
- DEC Regions
- Albany Mount Banks
- Lampegate 2002



0 125 m

Scale 1:4733

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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*K. Chaymole*  
K. Chaymole, Date 18/6/09

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

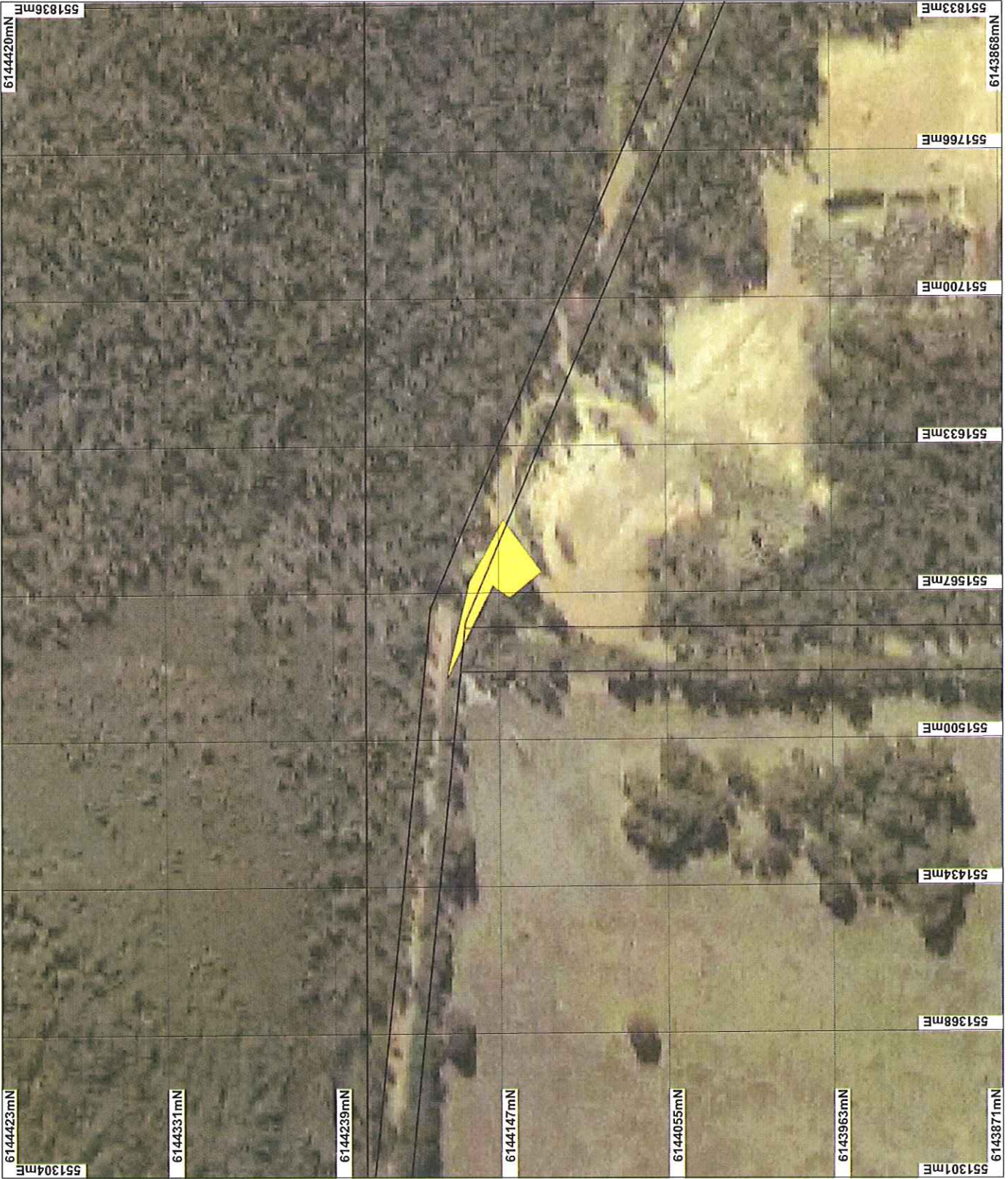
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# Plan 3095/1d



## LEGEND

- Clearing Instrument
- DEC Regions
- Albany Mount Banks Landgate 2002



0 75 m

Scale 1:2612  
(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.

*Keith Chapman Date 12/6/09*

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

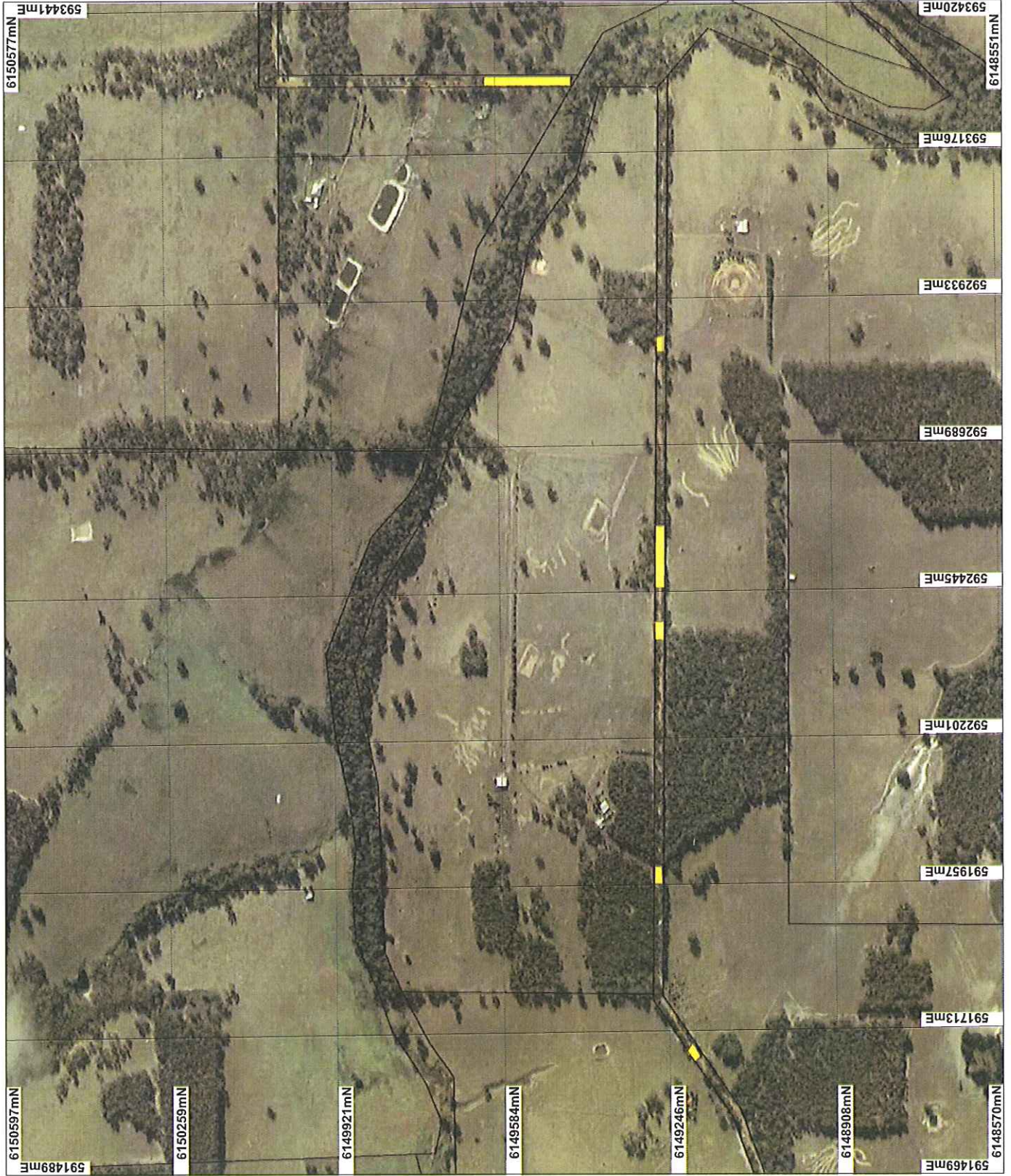
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# Plan 3095/1e



## LEGEND

- Classing Instrument Cadastre
- DEC Regions
- Albany Mount Bark Lamagata 2002



0 250 m

Scale 1:9584  
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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

*K. Claydon* Date 12/1/09

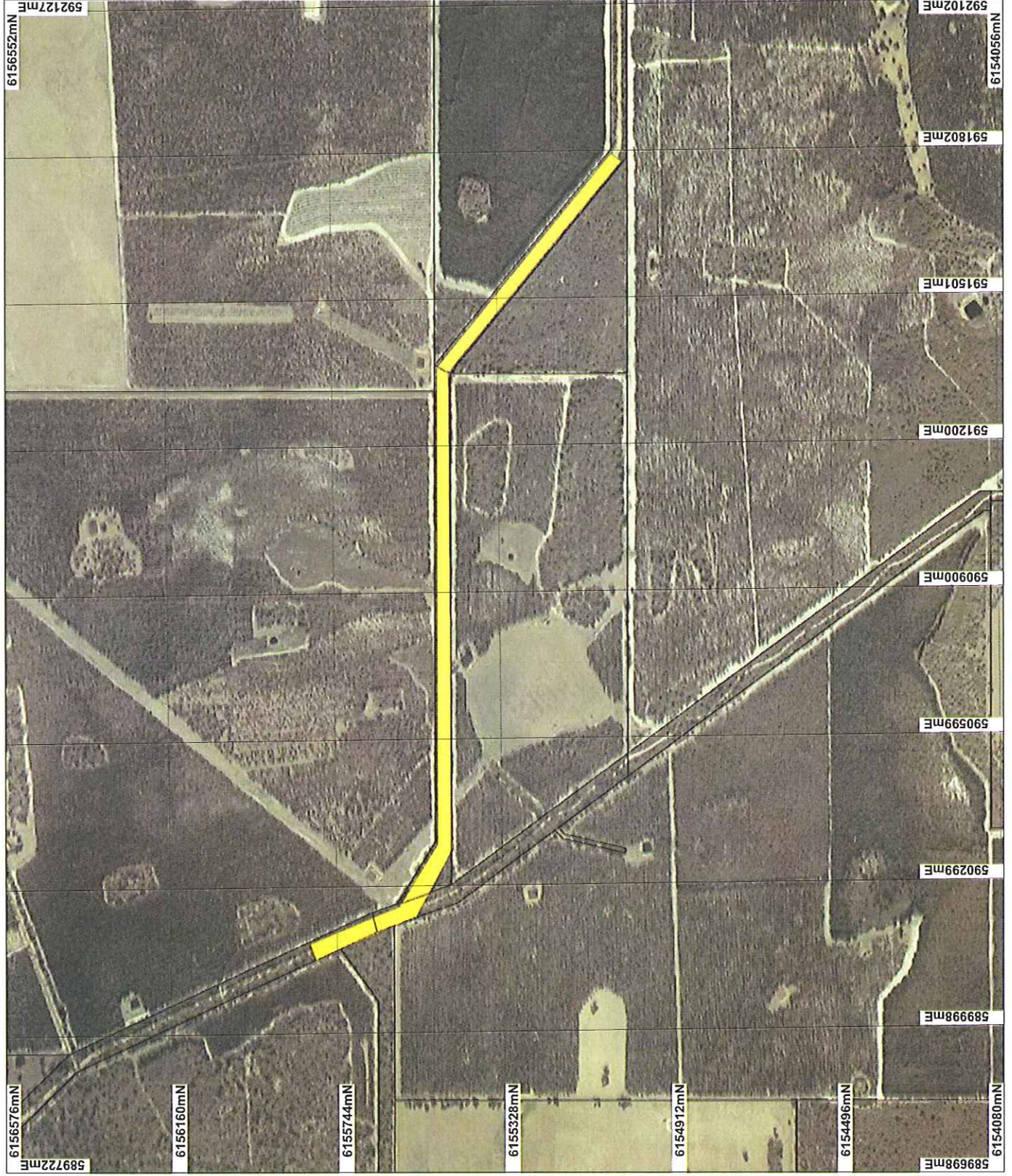
K. Claydon  
Officer with delegated authority under Section 20 of the Environmental Protection Act 1986  
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# Plan 3095/1f



## LEGEND

- Cadastral Instrument
- DEC Regions
- Albany Mount Barker Landgate 2002



0 300 m

Scale 1:11806

(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.

*Keith Claymore*  
K Claymore  
Date: 2/6/05

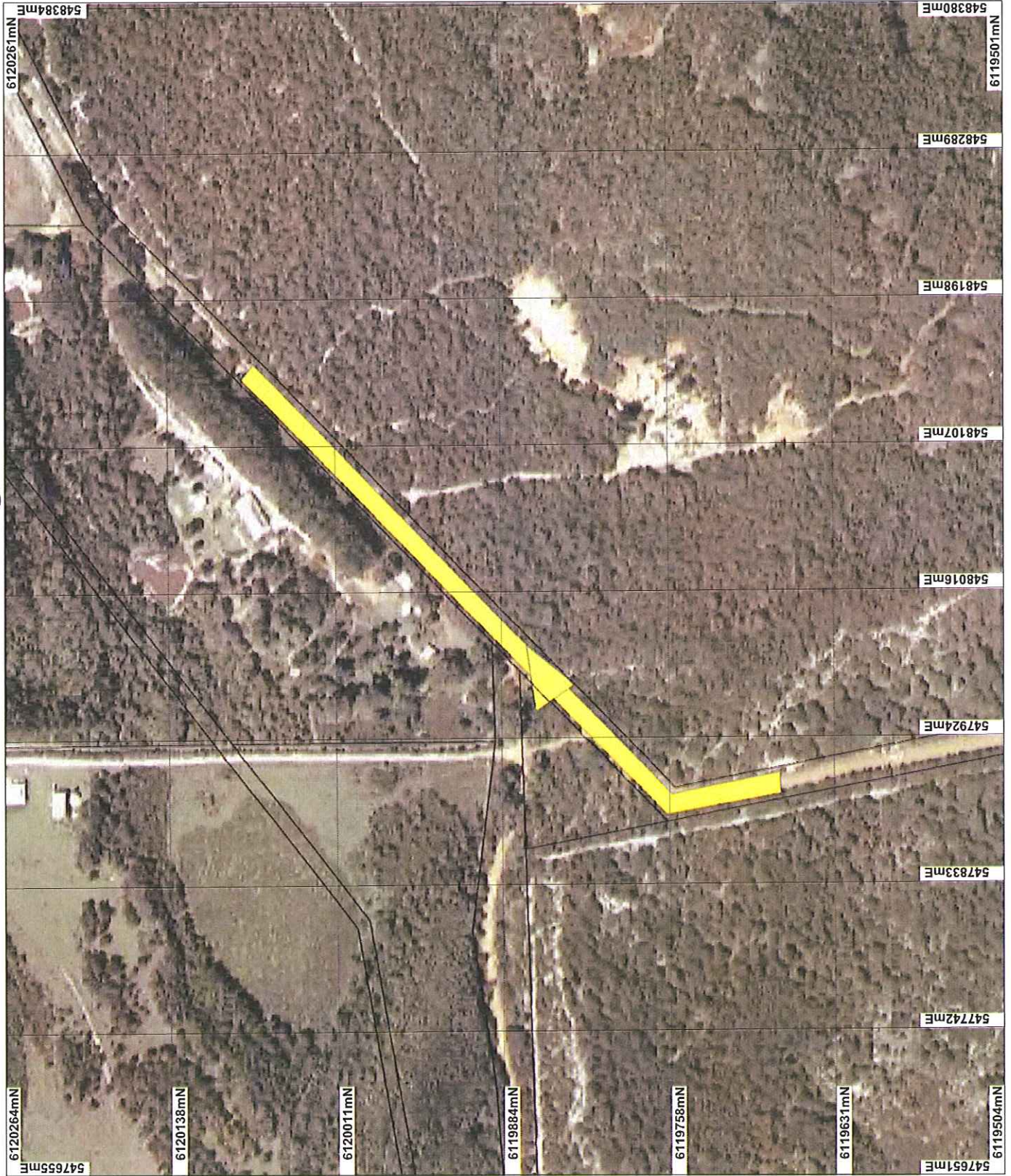
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# Plan 3095/1g



## LEGEND

- Classification Instrument Cadastre
- DEC Regions
- Albany Mount Bark LaneGate 2002



0 100 m

Scale 1:3589  
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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*K. Claymore* Date *12/02*

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# Plan 3095/1h



## LEGEND

- Coping Instrument
- Decree
- DEC Regions
- Albany Mount Bark
- Lamagate 2002



0 62 m

Scale 1:2341  
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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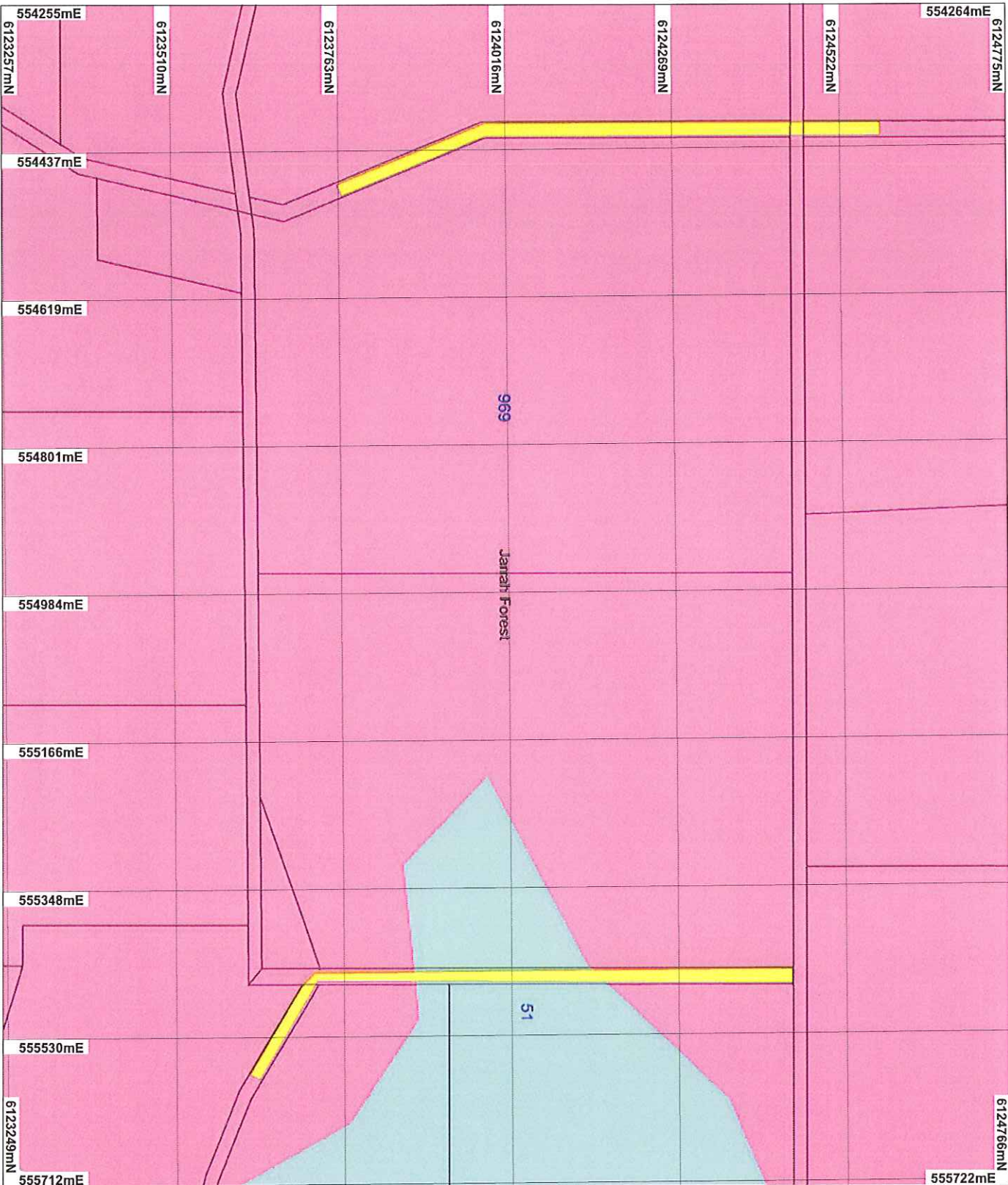
*K. Claymore* Date *12/10/09*

K Claymore  
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# Plan 3095/1i



## LEGEND

- Perth Region Water**
- Cadastral**
- DEC Regions**
- Albany Mount Bark**
- Langebaan 2002**
- Interim Biogeograph**
- Australia**

0 -200 m

Scale 1:7169

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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K Claymore

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*Kate Claymore*  
12/6/09



## 1. Application details

### 1.1. Permit application details

Permit application No.: 3095/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: City of Albany

### 1.3. Property details

Property:  
ROAD RESERVE ( NAPIER 6330)  
ROAD RESERVE ( NAPIER 6330)  
ROAD RESERVE ( TORNDIRRUP 6330)  
ROAD RESERVE ( KRONKUP 6330)  
ROAD RESERVE ( KALGAN 6330)  
UNALLOCATED CROWN LAND ( LOWLANDS 6330)  
ROAD RESERVE ( LOWLANDS 6330)  
LOT 6984 ON PLAN 195519 ( REDMOND WEST 6327)  
ROAD RESERVE ( REDMOND WEST 6327)  
ROAD RESERVE ( REDMOND WEST 6327)  
ROAD RESERVE ( KRONKUP 6330)  
ROAD RESERVE ( NAPIER 6330)  
ROAD RESERVE ( NAPIER 6330)  
ROAD RESERVE ( DROME 6330)

Local Government Area: City Of Albany  
Colloquial name: Down Road Reserve

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1		Mechanical Removal	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 Associations (Shepherd 2007):  Down Road: 3 - Medium forest; jarrah-marri	Clearing of 0.28ha on the South side of the existing road.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The vegetation description and condition were determined from aerial photography, regional advice (DEC, 2009a) and information provided by the proponent (TRIM ref DOC82408).
Kronkup North Road: Beard Vegetation Association 51 - Sedgeland; reed swamps, occasionally with heath.	Clearing of 0.16ha to install drains. Vegetation contains mainly scrub with weedy understorey.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	
Redmond Hay River Road: 2051 - Sedgeland; sedges with low tree savanna woodland; paperbarks over & various sedges.	Clearing of 0.10ha to realign the intersection.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	
Scrub Bird Road: 22 - Low woodland; Agonis flexuosa.	Clearing of 0.06ha on the south side of the existing road.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	
Takenup Road: 3 - Medium forest; jarrah-marri.	Clearing of 0.04ha on both sides of the existing road to form drains. Vegetation condition	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	



14 - Low forest; jarrah.	ranges from very good to degraded.	
Tennessee Road: 3 - Medium forest; jarrah-marri.	Clearing of 0.15ha to form drains and realign intersection.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)
Thomas Road: 969 - Mosaic: Medium forest; jarrah-marri / Low forest; jarrah.	Clearing of 0.16ha to form drains.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)
Wheeldon Road: 3 - Medium forest; jarrah-marri.	Clearing of 0.05ha to realign an intersection.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)

### 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 application is to clear 1 ha of native vegetation along 8 existing roads throughout the City of Albany, for road upgrades.

##### Down Road:

The proposal is for the clearing of 0.28ha of vegetation south of the existing road. The vegetation is considered to be in very good (Keighery 1994) condition and of high conservation value (DEC 2009a) as an ecological linkage. Nine priority flora species have been recorded nearby within the same soil and vegetation types. These are *Centrolepis caespitosa* (P4), *Gonocarpus simplex* (P3), *Laxmannia jamesii* (P4), *Synaphea incurve* (P1), *Andersonia jamesii* (P1), *Boronia crassipes* (P3), *Chordifex isomorphys* (P4), *Chorizema reticulatum* (P3) and *Stylidium plantagineum* (P4). Given the very good condition of the vegetation under application, priority flora species may be present. The clearing as proposed may be at variance to this principle, and a targeted flora survey will be required as a condition of the permit.

##### Kronkup North Road:

The proposal is for the clearing of 0.16ha of native vegetation to install drainage. The vegetation is considered to be in degraded (Keighery 1994) condition, and as such not representing high biological diversity in the area.

##### Redmond Hay River Road:

The application is for the clearing of 0.10ha of native vegetation to realign an intersection. The vegetation is considered to be in very good (Keighery 1994) condition, however larger areas of native vegetation exist nearby, with Blue Gum Creek Nature Reserve neighbouring the road reserve. The vegetation under application is therefore not considered to be of locally high biological diversity.

##### Scrub Bird Road:

The proposal is for the clearing of 0.06ha of native vegetation to widen the existing road. The vegetation is considered to be in good (Keighery 1994) condition, with evidence of weed disturbance. The application area contains mainly *Agonis flexuosa* (Peppermint trees) and is not considered to be of high biological diversity (DEC 2009a).

##### Takenup Road:

The application is to clear 0.04ha of native vegetation to form drains. The vegetation ranges from very good to degraded (Keighery 1994) condition, with some areas completely without native understorey. The area under application is therefore not considered to comprise high biological diversity.

##### Tennessee Road:

The application is for the clearing of 0.15ha to form drains. The vegetation is considered to be in very good (Keighery 1994) condition. There are no nearby records of priority flora species within the same soil and vegetation types as the application area. West Cape Howe National Park is 980m east of this section of application, contains vegetation in similar or better condition than the notified area, and as such the vegetation under application is not considered to have a locally high level of biological diversity.

##### Thomas Road:

The application is for the clearing of 0.16ha to form drains. The vegetation is in good (Keighery 1994) condition. No priority flora species have been recorded nearby within the same vegetation and soil types as the area under application area. The vegetation under application is therefore not considered to be of locally high biological diversity.

##### Wheeldon Road:

The proposal is for the clearing of 0.05ha of native vegetation to realign an intersection. The vegetation is

considered to be in excellent (Keighery 1994) condition. The application area neighbours crown reserve on both sides, on which vegetation containing a high level of biological diversity remains (DEC 2009a). In order to reduce the impacts to biodiversity in these areas, conditions requiring the revegetation of the old road alignment will be placed on the permit.

Additionally, weed and dieback conditions will be imposed for all proposed clearing areas in order to limit the risk of weed or dieback spread into neighbouring areas of vegetation.

**Methodology** DEC (2009a)  
Keighery (1994)

GIS database:

- CALM Managed Lands and Waters - CALM 01/06/05
- SAC Biodatasets - accessed 12 May 09
- Mattiske Vegetation (01/03/1998)
- Declared Rare and Priority Flora List - CALM 13/08/03
- Pre European Vegetation - DA 01/01
- Clearing Regulations, Environmentally Sensitive Areas 30 May 2005
- NLWRA, Current Extent of Native Vegetation 20 Jan 2001

**(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**

Seven rare fauna species have been recorded near the areas under application.

*Austrarchaea mainae* (Main's Assassin Spider) has been recorded 4.2km west of the Tennessee Road section of the proposed clearing. This species is considered endangered. The Main's Assassin Spider favours *Agonis flexuosa* (Peppermint) coastal habitats where it inhabits shaded, long unburnt groves with an understorey of sedges (*Lepidosperma*), grasses and wiry herbs (*Restionaceae*) (Rix & Harvey 2008). It's microhabitat within these groves is the elevated leaf-litter layer which collects amongst the crown of the understorey plants (Rix & Harvey 2008). Whilst peppermint groves exist within the application area along Tennessee Road, the habitat appears to be disturbed, with bracken understorey rather than sedges or herbs (DEC 2009b). More likely habitat for this species occurs south of the application area along the same roadside (DEC 2009b). Therefore, the likelihood the application area consisting significant habitat for this species is greatly reduced.

Given the linear nature of the proposed clearing, the small application size (1ha throughout the City of Albany) and the availability of large areas of suitable habitat within the local area, the vegetation under application is not likely to constitute significant habitat for local fauna species.

**Methodology** Rix & Harvey (2008)  
DEC (2009b)

GIS database:

- CALM Managed Lands and Waters - CALM 01/06/05
- Mattiske Vegetation (01/03/1998)
- SAC Biodatasets - accessed 3 April 2009
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06

**(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**

Rare flora species have been recorded within the local area (5km radius) of 3 of the roadsides under application.

Down Road:

One rare flora species, *Banksia brownii*, has been recorded within the local area of Down Road, within the same soil and vegetation types. The vegetation under application is considered to be in very good (Keighery 1994) condition (DEC 2009a), and may be providing habitat for this rare flora species. The clearing as proposed may be at variance to this principle, and as such, conditions requiring targeted flora surveys will be imposed on the permit.

Scrub Bird Road:

Two rare flora species, *Calectasia cyanea* and *Isopogon uncinatus*, have been recorded within the local area of Scrub Bird Road, within the same soil and vegetation types. The vegetation is considered to be in good (Keighery 1994) condition, however there is evidence of disturbance. The area under application is not likely to

support these rare species.

Takenup Road:

Four rare flora species, *Drakaea micrantha*, *Banksia brownii*, *Banksia goodii* and *Bonostylis misera*, have been recorded within the local area of Takenup Road, within the same soil and vegetation types. The vegetation is considered to vary from very good to degraded (Keighery 1994) condition, with obvious signs of disturbance throughout. The clearing is minimal (0.04ha) and in many places limited to individual trees. The vegetation under application is therefore not likely to be necessary for the continued existence of these rare species.

**Methodology** DEC (2009a)  
Keighery (1994)

GIS database:

- CALM Managed Lands and Waters - CALM 01/06/05
- SAC Biodatasets - accessed 12 May 09
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06

**(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.**

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

There are no threatened or priority ecological communities recorded within the local area (10km radius). Therefore, the vegetation under application is not likely to be necessary for the continued existence of TECs.

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

**Methodology** GIS Database:  
- SAC Biodatasets - accessed 12 May 09  
- Pre European Vegetation - DA 01/01  
- Soils, Statewide DA 11/99

**(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.**

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

The area under application falls within the Jarrah Forest and Warren IBRA bioregions which have approximately 54.16% and 80.85% of their pre-European extent of vegetation coverage remaining. The City of Albany is approximately 38% vegetated with native vegetation.

The notified area falls within the boundaries of EPA Position Statement No. 2 'Environmental Protection of Native Vegetation in Western Australia - Clearing of Native Vegetation, with particular reference to the agricultural area'. This position statement advises that clearing for the purposes of agriculture is not supported (EPA 2000), however the purpose of this application is road upgrades.

Of the 6 mapped Beard vegetation associations within the area under application, 969 has less than 30% of their pre-European extent remaining, and is therefore considered by the EPA (2000) to be below threshold levels for maintaining biodiversity.

	Pre-European (ha)	Current extent (ha)	Remaining (%)
<b>BIOREGIONS</b>			
Warren (SCP)			
- overall *	835 925	675 836	80.85
Jarrah Forest (JF)			
- overall *	4 506 655	2 440 940	54.16
<b>LOCAL GOVERNMENT AUTHORITIES</b>			
City of Albany			
- overall *	431 549	163 977	38.00
<b>VEGETATION ASSOCIATIONS</b>			
Beard association: 969*			
- in JF bioregion	8 552	1 840	21.52

Beard association: 51\*

- in JF bioregion	19 962	8 063	40.40
Beard association: 3*			
- in JF bioregion	2 390 590	1 657 274	69.32
Beard association: 2051*			
- in JF bioregion	10 742	7 780	72.42
Beard association: 14*			
- in JF bioregion	88 292	68 075	77.10
Beard association: 22*			
- in WAR bioregion	3 333	2 948	88.45

\*statistics from DEC/DAFWA (Shepherd et al, 2007)

Beard association 969 is therefore considered to be critical assets by the EPA (2000). This vegetation association occurs along Thomas and Kronkup Roads (0.32ha). Impacts to critical assets are to be preferentially avoided where possible or minimised and the residual impacts offset.

The clearing as proposed is therefore at variance to this principle, and avoid, minimise clearing and offset conditions will be imposed on the permit to mitigate the impacts to extensively cleared vegetation associations.

**Methodology** EPA (2000)  
Shepherd (2007)

GIS Databases:

- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Local Government Authorities - DLI 8/07/04
- Pre European Vegetation - DA 01/01
- SAC Biodatasets - accessed 12 May 09
- NLWRA, Current Extent of Native Vegetation 20 Jan 2001

**(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**

A minor perennial watercourse intersects the application area twice along Kronkup Road and alongside Thomas Road. Additionally, parts of the proposed clearing are for the construction of roadside drainage. It is possible that some vegetation cleared may be growing in association with watercourses. The clearing as proposed may be at variance to this principle.

**Methodology** GIS Databases:  
- CALM Managed Lands and Waters - CALM 01/06/05  
- Hydrography linear - DOW 13/7/06  
- Hydrography linear (hierarchy) - DoW 13/7/06

**(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**

Given the nature of the application, localised land degradation is likely to occur during the works, however this is likely to be only short term. These issues should be minimal as the existing roads already have roadside infrastructure in place to prevent land degradation associated with roads.

Given the linear nature of the application area, it is unlikely that the proposed clearing of native vegetation would cause appreciable land degradation.

**Methodology** GIS database:  
- Average Annual Rainfall Isohyets - WRC 29/09/98  
- Annual Evaporation Contours (Isopleths) - WRC 29/09/98  
- Hydrogeology, statewide - DOW 13/07/06  
- Hydrographic catchments, catchments - DoW 01/06/07  
- Hydrography, linear - DOW 13/7/06  
- Salinity Risk LM 25m - DOLA 00  
- Soils, Statewide DA 11/99

- Topographic contours statewide - DOLA and ARMY 12/09/02
- Hydrogeology, Statewide 05 Feb 2002

**(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**

Sections of the application lie adjacent to Blue Gum Nature Reserve and Takenup Road Nature Reserve, and Tennessee Road is 980m east of West Cape Howe National Park. The clearing may indirectly impact on environmental values through the introduction or spread of dieback or weed species into these conservation areas. Therefore, the proposal may be at variance to this principle. Weed and dieback management conditions will be imposed on the permit.

**Methodology GIS Databases:**

- CALM Managed Lands and Waters - CALM 01/06/05
- Hydrography, linear - DOW 13/7/06
- Register of National Estate - Environment Australia, Australian and world heritage division 12 Mar 02
- System 1 to 5 and 7 to 12 areas - DEC 11/7/06

**(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.**

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

The clearing application passes through the Oyster Harbour Kalgan King, Princess Royal Harbour, Torbay Inlet, Wilson Inlet and Wilson Inlet Hay River hydrographic catchments. Additionally, the Scrub Bird Road section of the application lies within the South Coast Water Reserve PDWSA.

The proposed clearing may cause some short term water quality issues in terms of localised surface water sedimentation during works. However, these issues would be minimised with the inclusion of infrastructure to prevent water quality issues associated with roads.

Due to the small clearing size (1ha throughout the City of Albany), it is unlikely that the clearing of native vegetation will cause significant deterioration in the quality of surface water and groundwater within the local area.

**Methodology GIS database:**

- Evapotranspiration Isopleths - WRC 29/09/98
- Groundwater Salinity Statewide DoW 13/07/06
- Hydrographic catchments, catchments - DoW 01/06/07
- Hydrography, linear - DOW 13/7/06
- Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
- Salinity Risk LM 25m - DOLA 00
- Topographic Contours, Statewide - DOLA 12/09/02

**(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**

As the proposal is for the clearing of 1ha along roads throughout the City of Albany, and the clearing will be linear, it is unlikely to cause or exacerbate flooding. The proposal is not likely to be at variance to this principle.

**Methodology GIS database:**

- Evaporation Isopleths - WRC 29/09/98
- Hydrographic catchments, catchments - DoW 01/06/07
- Hydrography, linear - DoW 13/7/06
- Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
- Topographic Contours, Statewide - DOLA 12/09/02

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

**Comments**

Part of the vegetation under application lies within Unallocated Crown Land (PIN 591481). There is a registered Native Title claim over the area, from the Southern Noongar and Wagyl Kaip people. The proponent is clearing for activities under the Local Government Act 1995, and has received access to the land from the Department of Planning and Infrastructure. Therefore, it is the CEO of the Department's view that the grant of a clearing permit in this case constitutes a secondary approval.

No submissions were received regarding this application.

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

#### 5. References

- DEC (2009a) South Coast Regional Advice. Department of Environment and Conservation Trim Ref DOC85142.  
DEC (2009b) South Coast Regional Advice. Department of Environment and Conservation Trim Ref DOC87504.  
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.  
Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.  
Rix, M. G., & Harvey, M. S. (2008). A Survey of Populations of Main's Assassin Spider (*Austratchaea mainae*) near Albany. Western Australian Museum.  
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.

#### 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)