



## CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

<b>Purpose Permit number:</b>	CPS 6110/1
<b>Permit Holder:</b>	Pilbara Iron Company (Services) Pty Ltd
<b>Duration of Permit:</b>	4 October 2014 to 30 September 2019

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

### PART I – CLEARING AUTHORISED

#### 1. Purpose for which clearing may be done

Clearing for the purpose of constructing town and camp infrastructure and associated works.

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

Clearing authorised under this Permit is to be undertaken within land tenure or rights administered under the *Mining Act 1904* (WA), *Mining Act 1978* (WA), *Land Act 1933* (WA), *Land Administration Act 1997* (WA), *Property Law Act 1969* (WA), *Transfer of Land Act 1893* (WA), *Strata Titles Act 1985* (WA), the *Rights in Water and Irrigation Act 1914* (WA), the *Water Corporation Act 1995* (WA), the *Water Agencies (Powers) Act 1984* (WA) and the following State Agreement Acts –

- *Iron Ore (Hamersley Range) Agreement Act 1963*
- *Iron Ore (Robe River) Agreement Act 1964*
- *Iron Ore (Hamersley Range) Agreement Act 1968 (Paraburdoo)*
- *Iron Ore (Mount Bruce) Agreement Act 1972*
- *Iron Ore (Channar Joint Venture) Agreement Act 1987*
- *Iron Ore (Hope Downs) Agreement Act 1992*
- *Iron Ore (Yandicoogina) Agreement Act 1996*

Karjini Drive Road reserve (Lot 106 on Plan 218877)

#### 3. Area of Clearing

The Permit Holder must not clear more than 50 hectares of native vegetation within the areas hatched yellow on attached Plan 6110/1 (a), Plan 6110/1 (b), Plan 6110/1 (c), Plan 6110/1 (d), Plan 6110/1 (e), Plan 6110/1 (f), Plan 6110/1 (g), Plan 6110/1 (h), Plan 6110/1 (i), Plan 6110/1 (j), Plan 6110/1 (k), Plan 6110/1 (l), Plan 6110/1 (m) and Plan 6110/1 (n).

#### 4. Application

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

### PART II – MANAGEMENT CONDITIONS

#### 5. Weed control

When undertaking any clearing or other activity pursuant to this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds*:

- (a) Clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) Ensure that no *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (c) Restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

## 6. Flora management

- (a) Prior to undertaking any clearing authorised under this Permit, the Permit Holder shall engage a *botanist* to conduct a *targeted flora survey* of the areas hatched yellow on attached Plan 6110/1 (a), Plan 6110/1 (c), Plan 6110/1 (d), Plan 6110/1 (f), Plan 6110/1 (g), Plan 6110/1 (i), Plan 6110/1 (l), and Plan 6110/1 (n) for the presence of rare flora listed in the *Wildlife Conservation (Rare Flora) Notice* and *priority flora* in accordance with *Guidance Statement No. 51*.
- (b) Where rare or *priority flora* are identified under condition 6(a) of this Permit, the Permit Holder shall engage a *botanist* to map the *critical habitat* of the identified rare or *priority flora* within the Permit Area.
- (c) Prior to undertaking any clearing authorised under this Permit, the Permit Holder shall provide the results of the *targeted flora survey* in a report to the CEO.
- (d) If rare or *priority flora* are identified within the Permit Area, the *targeted flora survey* report must include the following:
  - (i) the location of each rare or *priority flora*, either as the location of individual plants, or where this is not practical, the areal extent of the population and an estimate of the number of plants, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees; and
  - (ii) the species name of each rare or *priority flora*, identified; and
  - (iii) the methodology, used to survey the Permit Area and to establish the *critical habitat* of flora; and
  - (iv) the extent of the *critical habitat* of the identified rare or *priority flora* shown on a map; and
  - (v) a site description of the *critical habitat* of rare or *priority flora* found.
- (e) Where rare or *priority flora* are identified under condition 6(a) of this Permit, the Permit Holder shall ensure that:
  - (i) no clearing of *critical habitat* of the identified rare or *priority flora* occurs, unless first approved by the CEO.

## 7. Fauna management

- (a) Prior to undertaking any clearing authorised under this Permit, the Permit Holder shall engage a *fauna specialist* to conduct a *fauna survey* of the areas hatched yellow on attached Plan 6110/1 (a), Plan 6110/1 (d), Plan 6110/1 (f), Plan 6110/1 (i), Plan 6110/1 (l), and Plan 6110/1(n), to identify *critical habitat* being utilised by fauna listed in the *Wildlife Conservation (Specially Protected Fauna) Notice* and *priority fauna*.
- (b) Prior to undertaking any clearing authorised under this Permit, the Permit Holder shall provide the results of the *fauna survey* in a report to the CEO.
- (c) The *fauna survey* report must include the following:
  - (i) the location of the *critical habitat* recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
  - (ii) the location of any fauna species, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
  - (iii) the name of each fauna species identified;
  - (iv) the methodology, used to survey the Permit Area and to establish the *critical habitat*;
  - (v) the extent of the *critical habitat* of the identified rare or priority fauna shown on a map; and
  - (vi) a description of the *critical habitat* of rare or *priority fauna* found.
- (d) Where fauna are identified under condition 7(a) of this Permit, the Permit Holder shall ensure that:
  - (i) no clearing of *critical habitat* of the identified rare or *priority fauna* occurs, unless first approved by the CEO; and
  - (ii) no taking of identified fauna occurs, unless first approved by the CEO.

## 8. Vegetation management

- (a) Where practicable the Permit Holder shall avoid clearing riparian vegetation.
- (b) Where a watercourse or wetland is to be impacted by clearing, the Permit Holder shall maintain the existing surface flow by use of culverts.

**9. 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 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 or decimal degrees;
  - (ii) the date that the area was cleared; and
  - (iii) the size of the area cleared (in hectares).
- (b) In relation to flora management pursuant to condition 6 of this Permit:
  - (i) the location of each rare and/or *priority flora* species recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
  - (ii) the species name of each rare or *priority flora* species identified; and
  - (iii) a copy of the botanists flora survey report.
- (c) In relation to fauna management pursuant to condition 7 of this Permit:
  - (i) the location of each fauna identified recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
  - (ii) the species name of each fauna identified; and
  - (iii) a copy of the fauna specialist's report.

**10. Reporting**

- (a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:
  - (i) of records required under condition 9 of this Permit; and
  - (ii) concerning activities done by the Permit Holder under this Permit between 1 January to 31 December of the preceding calendar year.
- (b) If no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding calendar year, a written report confirming that no clearing under this permit has been carried out, must be provided to the CEO on or before 31 December of each year.
- (c) Prior to 30 July 2019, the Permit Holder must provide to the CEO a written report of records required under condition 9 of this Permit where these records have not already been provided under condition 10(a) of this Permit.

**DEFINITIONS**

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

**botanist:** means a person who holds a tertiary qualification in environmental science or equivalent, and has a minimum of 2 years work experience in identification and surveys of flora native to the bioregion being inspected or surveyed, or who is approved by the CEO as a suitable botanist for the bioregion;

**critical habitat:** means any part of the Permit Area comprising of the habitat of flora or fauna species and its population, that is critical for the health and long term survival of the flora or fauna species and its population;

**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 who holds a tertiary qualification specializing in environmental science or equivalent, and has a minimum of 2 years work experience in fauna identification and surveys of fauna native to the region being inspected or surveyed, or who is approved by the CEO as a suitable fauna specialist for the bioregion, and who holds a valid fauna licence issued under the *Wildlife Conservation Act 1950*;

**fauna survey:** means a field-based investigation, including a review of established literature, of the biodiversity of fauna and/or fauna habitat of the Permit Area. Where conservation significant fauna are identified in the Permit Area, the survey should also include sufficient surrounding areas to place the Permit Area into local context;

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

**Guidance Statement No. 51** means the Environmental Protection Authority Guidance Statement No 51, Guidance for the Assessment of Environmental Factors - Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia (2004);

**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;

**priority flora** means those plant taxa described as priority flora classes 1, 2, 3, 4 or 5 in the *Department of Environment and Conservation's Threatened and Priority Flora List for Western Australia* (as amended);

**priority fauna**: means those fauna taxa describes as priority fauna, classes 1, 2, 3, 4 or 5 in the *Department of Parks and Wildlife's Threatened and Priority Fauna Rankings List for Western Australia* (as amended).

**targeted flora survey**: means a field-based investigation, including a review of established literature, of the biodiversity of flora and vegetation of the Permit Area, focusing on habitat suitable for flora species that are being targeted and carried out during the optimal time to identify those species. Where target flora are identified in the Permit Area, the survey should also include sufficient surrounding areas to place the Permit Area into local context;

**weed/s** means any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
- (b) published in a Department of Parks and Wildlife Regional Weed Rankings Summary, regardless of ranking; or
- (c) not indigenous to the area concerned.

**Wildlife Conservation (Specially Protected Fauna) Notice** means those fauna taxa gazetted as rare fauna pursuant to section 14(4)(a) of the *Wildlife Conservation Act 1950* (as amended).

**Wildlife Conservation (Rare Flora) Notice** means those plant taxa gazetted as rare flora pursuant to section 23F(2) of the *Wildlife Conservation Act 1950* (as amended).

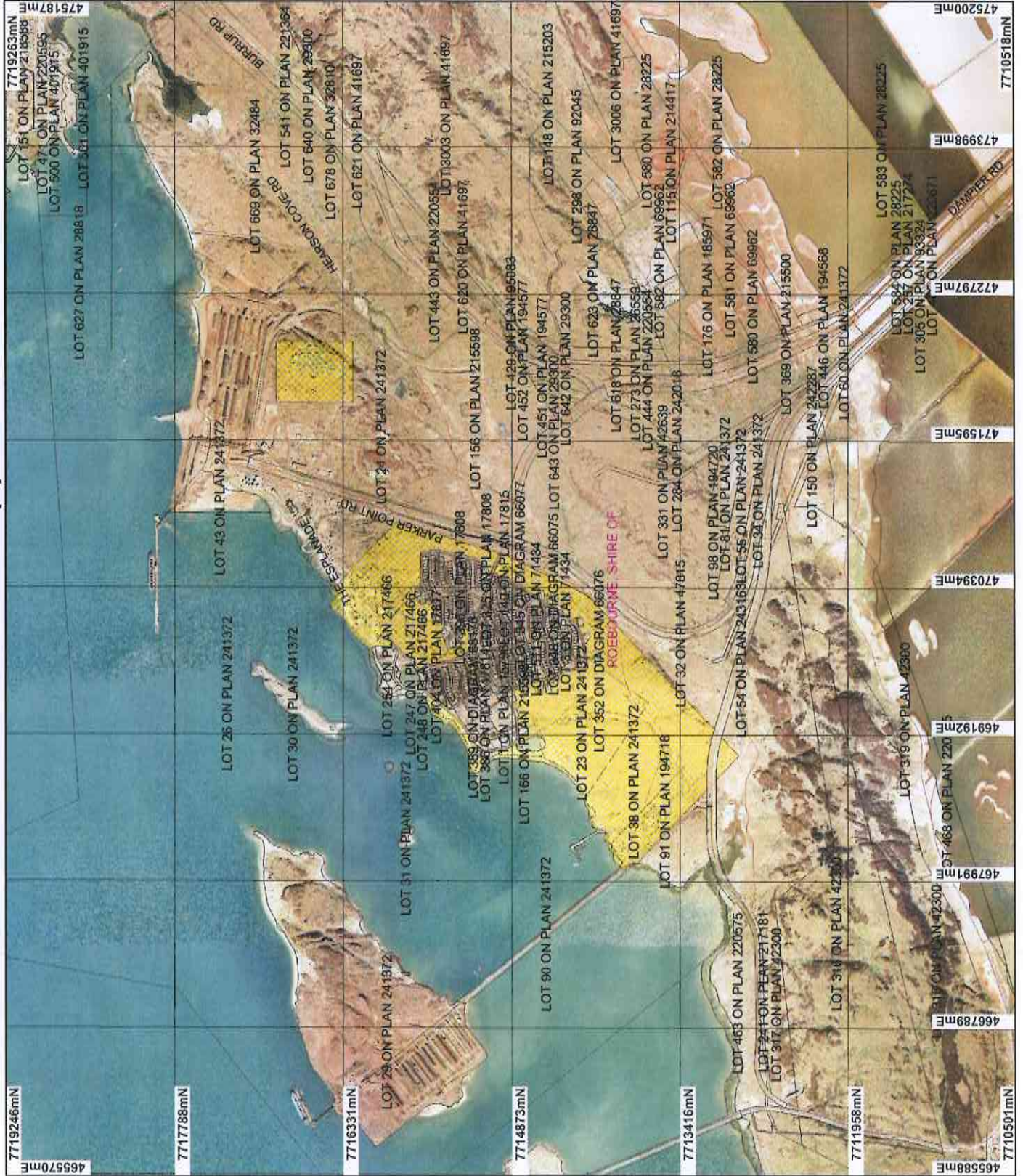


M Warnock  
SENIOR MANAGER  
CLEARING REGULATION

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

4 September 2014

# Plan 6110/1 (a)



## LEGEND

- Local Government Authorities
- Road Centrelines
- Cadastre
- Clearing Instruments
- Areas Approved to Clear
- Damplers and Extensions 50m Orthometric - Lanigate 2008

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



Scale 1:4234  
Approximate when reproduced at A4

Geocentric Datum Australia 1994  
Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

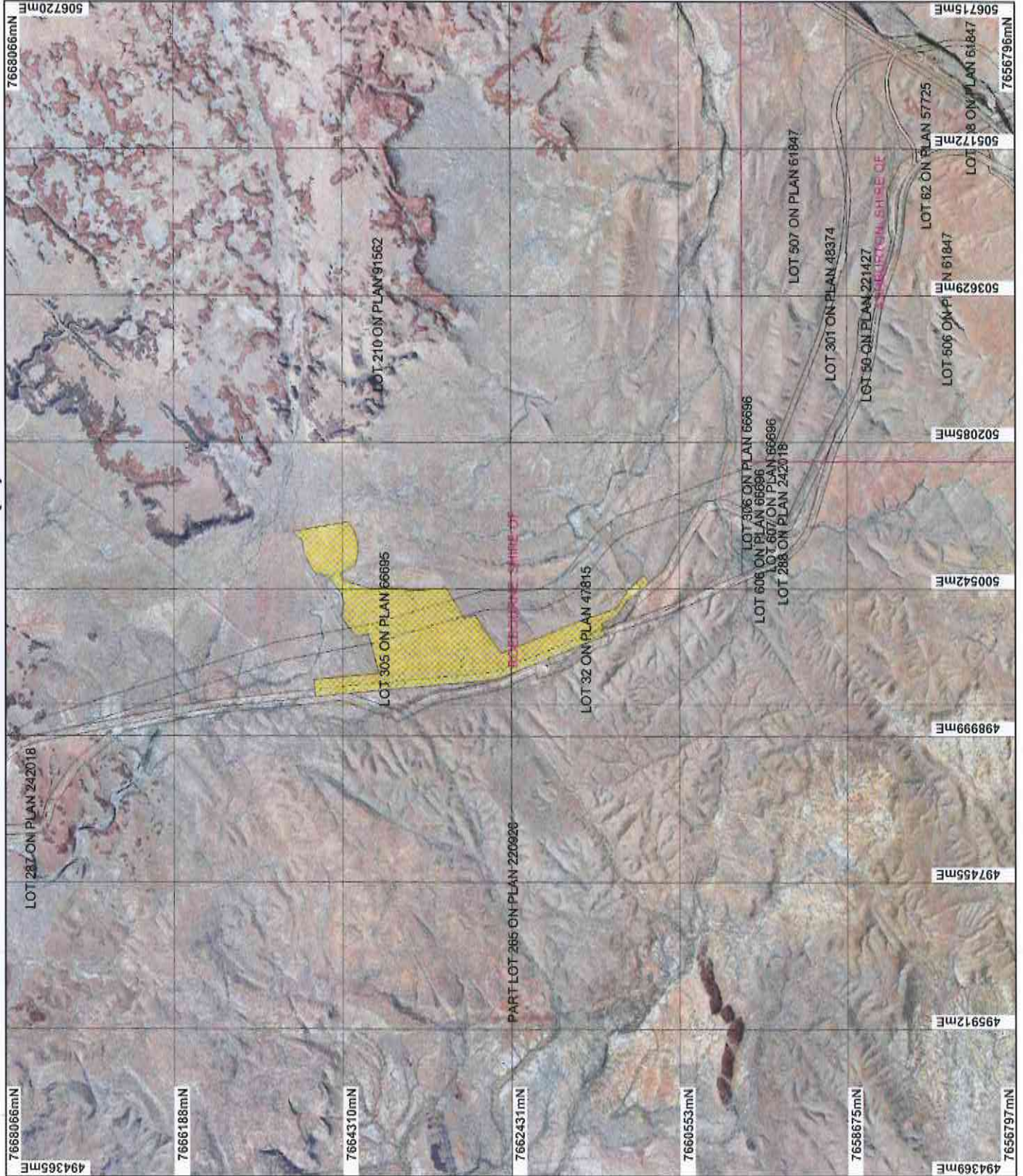
*Michael* Date 4/9/17  
M/Wernick

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986  
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Department of Environment Regulation  
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# Plan 6110/1 (b)



## LEGEND

- Local Government Authorities
- Road Centrelines
- Cadastral
- Clearing Instruments
- Areas Approved to Clear
- Pindori Hills 1.4m Orthomosaic - Landgate 2000
- Cooya Pooya 1.4m Orthomosaic - Landgate 1998

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



Scale 1:56587  
(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.

*M. Waincock* Date 14/9/14

M. Waincock

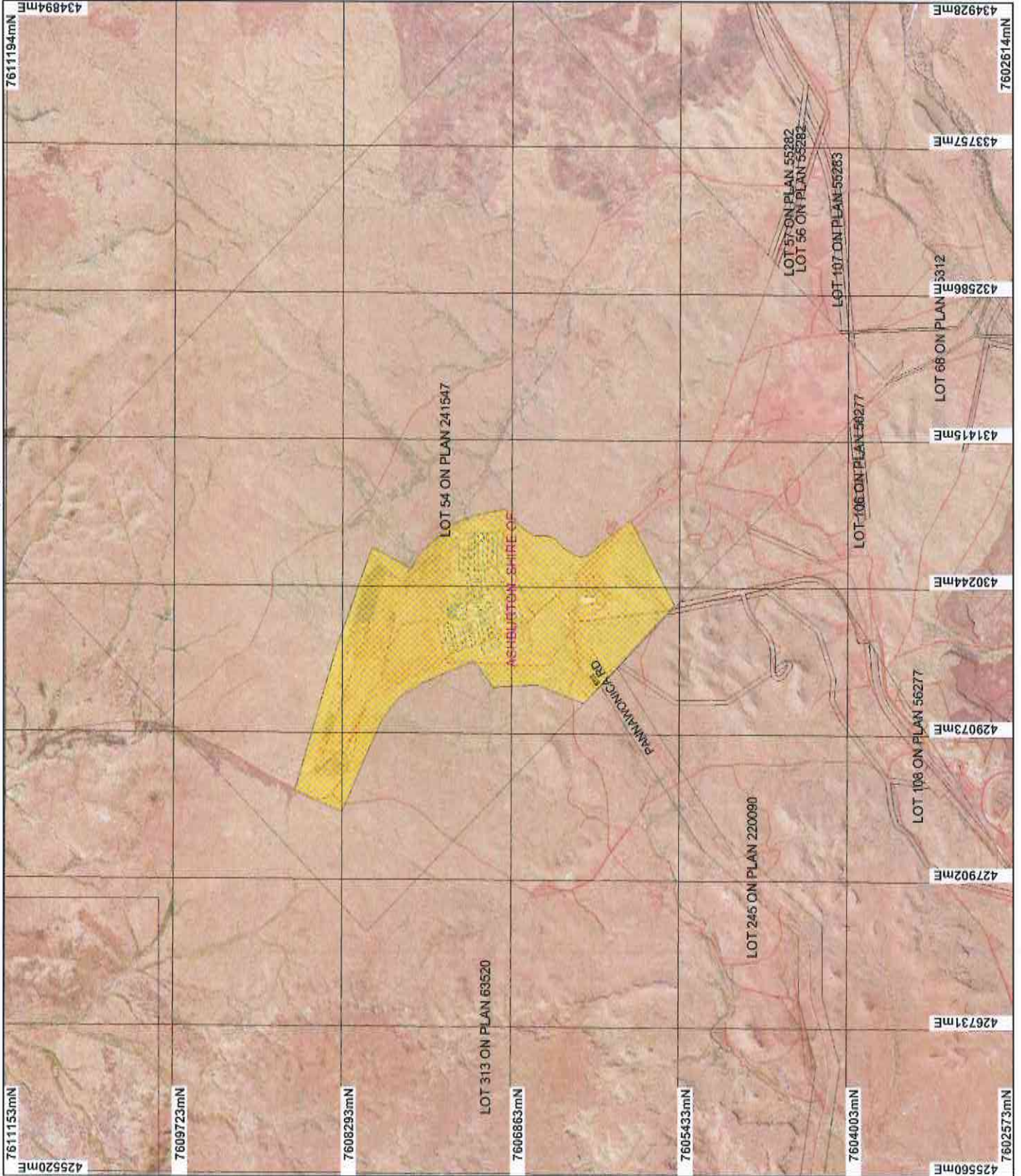
Office with delegated authority under Section 20 of the Environmental Protection Act 1986

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# Plan 6110/1 (c)



**LEGEND**

- Local Government Authorities
- Road Centrelines
- Cadastral
- Clearing Instruments
- Areas Approved to Clear
- Pannawongia 1.4m Orthomosaic - Landgate 2000

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

Scale 1:43299  
(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.

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 km

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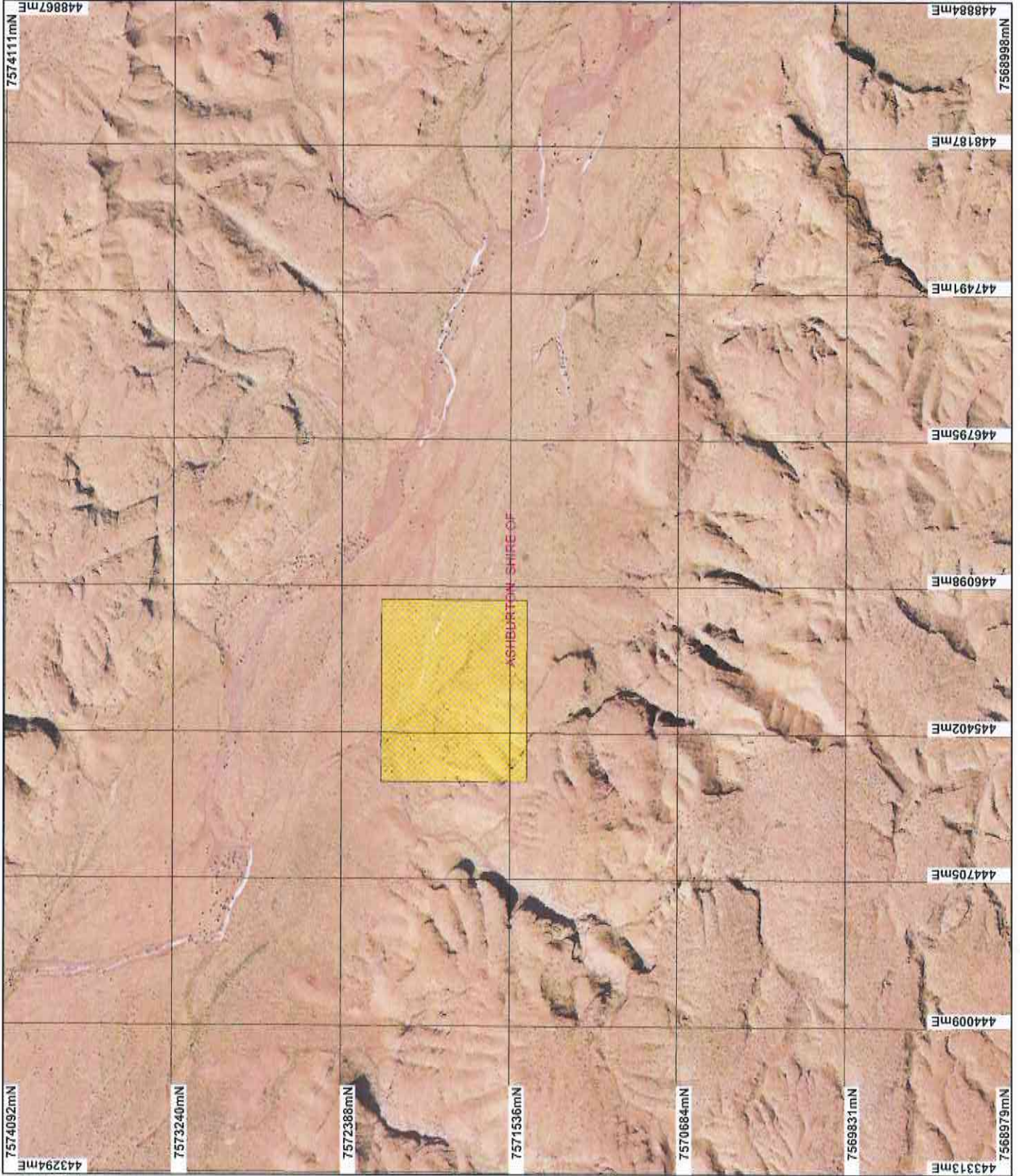
*M. Warnock* Date 9/9/14

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

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

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# Plan 6110/1 (d)



## LEGEND

- Local Government Authorities
- Road Centralines
- Cadastre
- Clearing Instruments
- Areas Approved to Clear

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



Scale 1:25773  
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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

*M. Wainock* Date **4/9/14**  
M Wainock

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

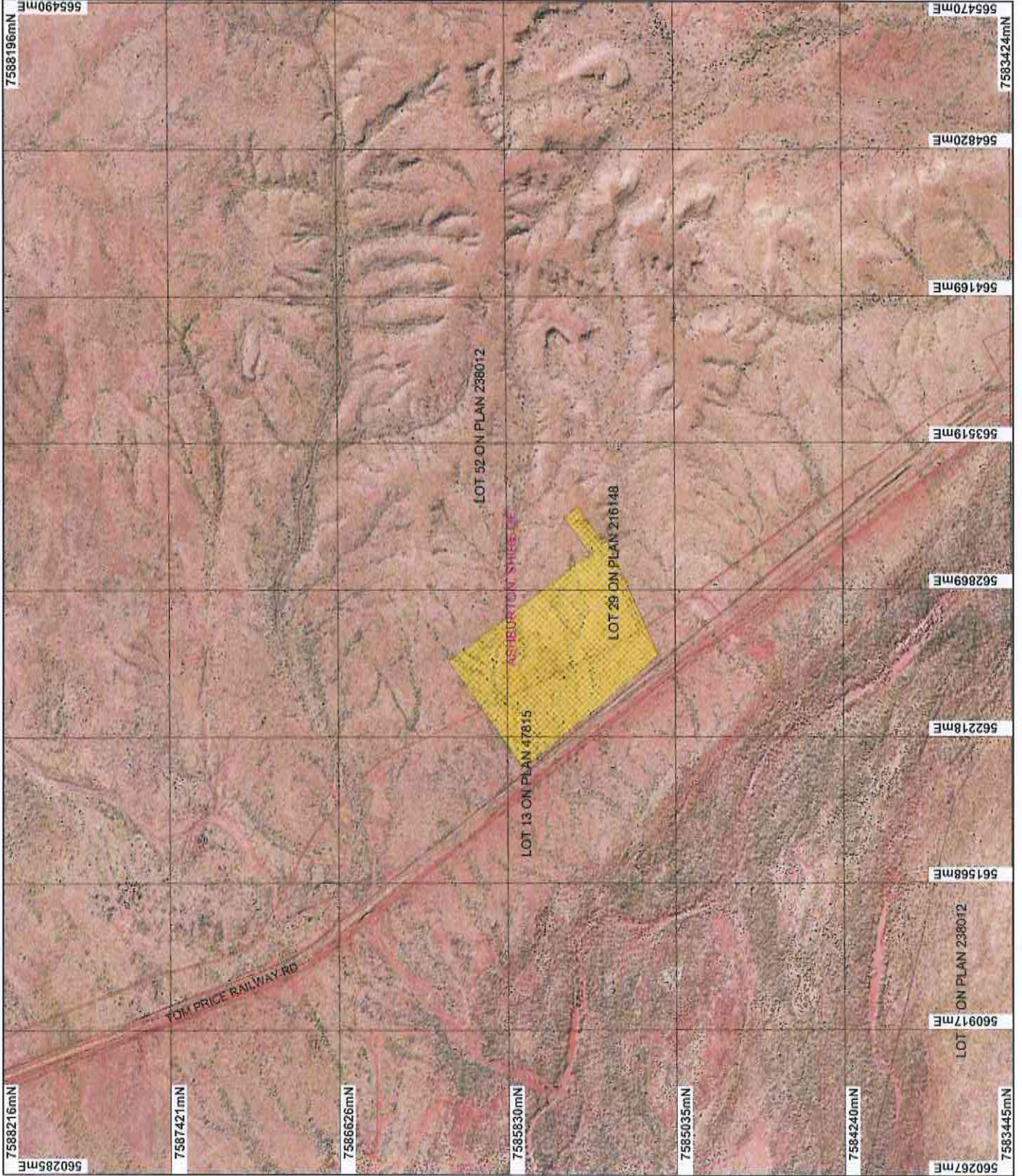
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# Plan 6110/1 (e)



## LEGEND

- Local Government Authorities
- Road Centrelines
- Cadastre
- Clearing Instruments
- Areas Approved to Clear
- Mount Billroth 1.4m Orthomosaic - Landgate 2000

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



0 425 m

Scale 1:24062

(Approximate when reproduced at A4)

Geocentric Datum Australia 1984

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

*M. Waincock* Date 4/9/14

M. Waincock

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

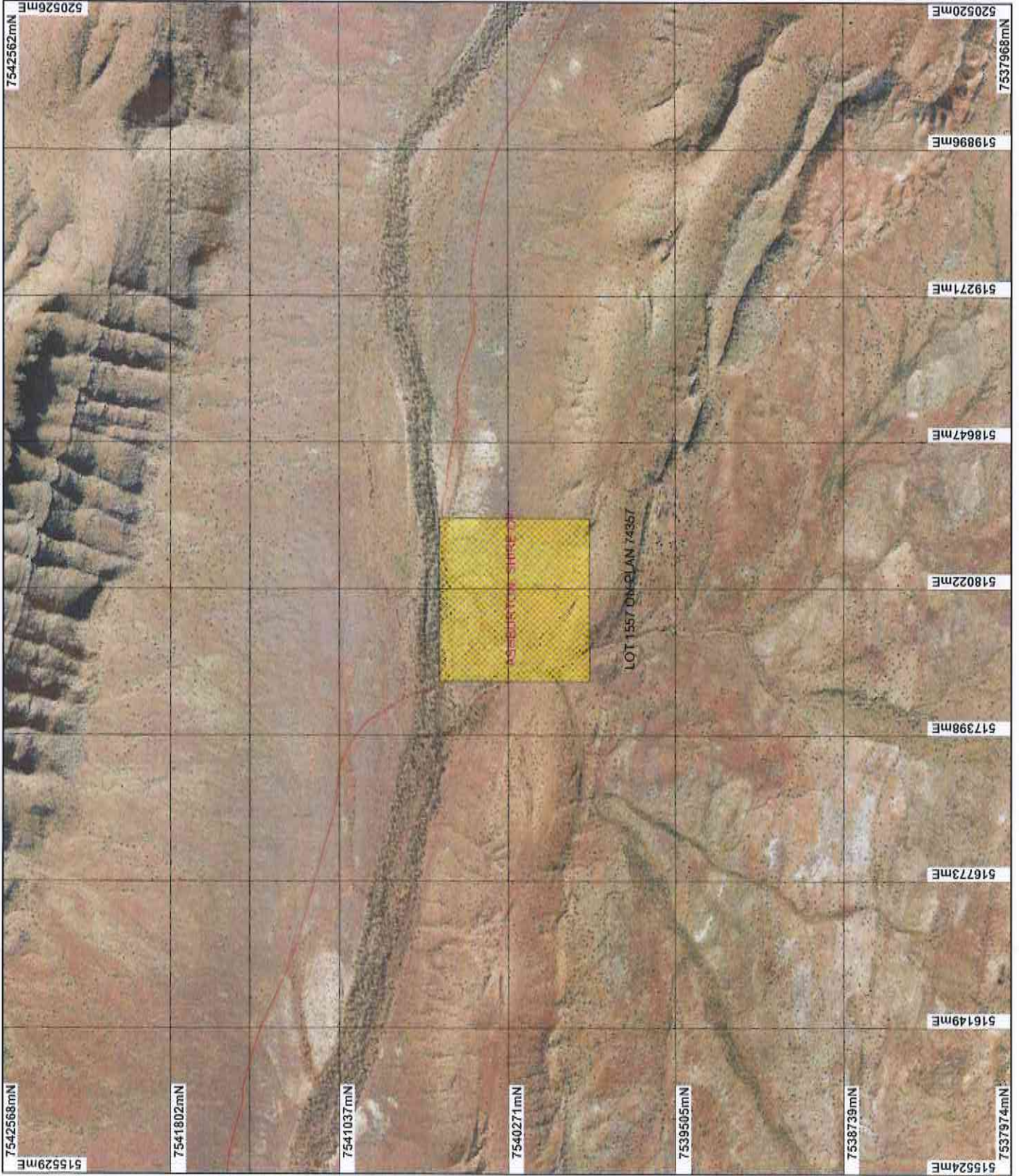
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Department of Environment Regulation

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# Plan 6110/1 (f)



## LEGEND

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

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



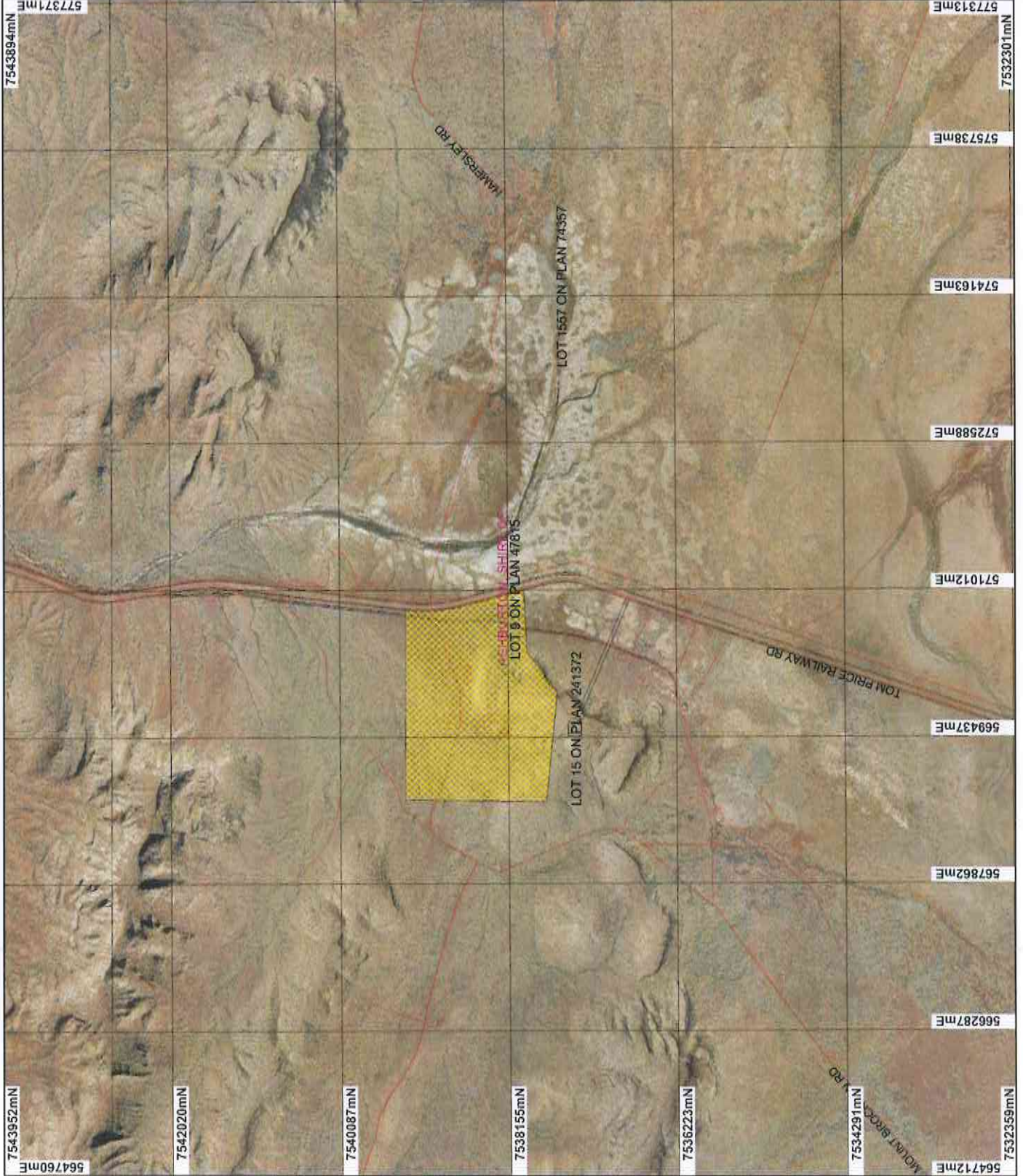
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 (Approximate when reproduced at A4)  
 Geocentric Datum Australia 1994  
 Note: the data in this map have not been  
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 distortion or measurement inaccuracies.

*M. Warruck* Date **4/9/14**

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# Plan 6110/1 (g)



- LEGEND**
- Local Government Authorities
  - Road Centrelines
  - Cadastral
  - Clearing Instruments
  - Areas Approved to Clear
  - Micrae 50cm Orthomosaic - Landgate 2004

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



Scale 1:55363  
 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.

*M. Warnock* Date: *4/9/14*

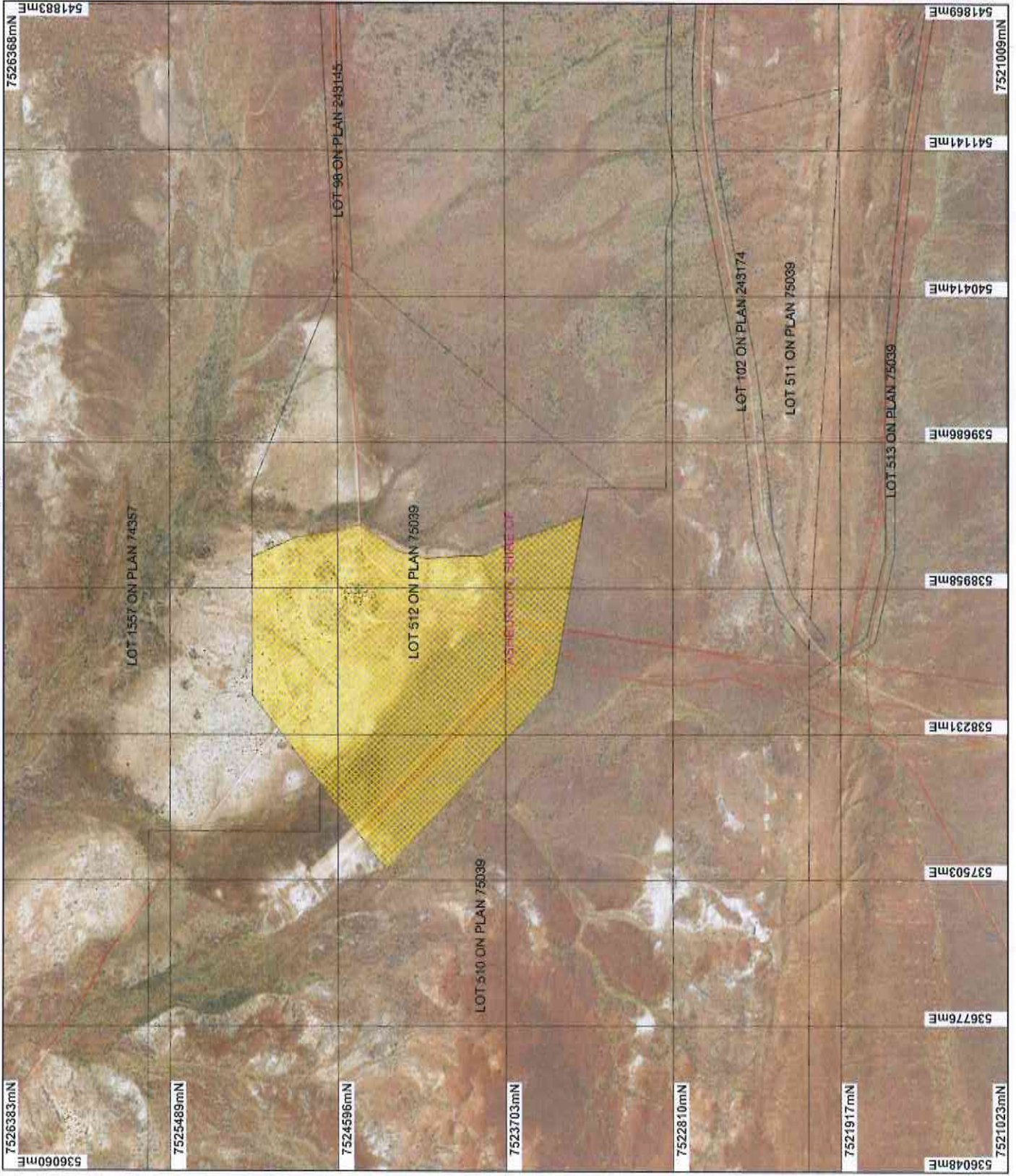
M. Warnock  
 Officer with delegated authority under Section 20 of  
 the Environmental Protection Act 1986

Information derived from this map should be  
 confirmed with the data custodian acknowledged  
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# Plan 6110/1 (h)



## LEGEND

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

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



Scale 1:269568  
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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

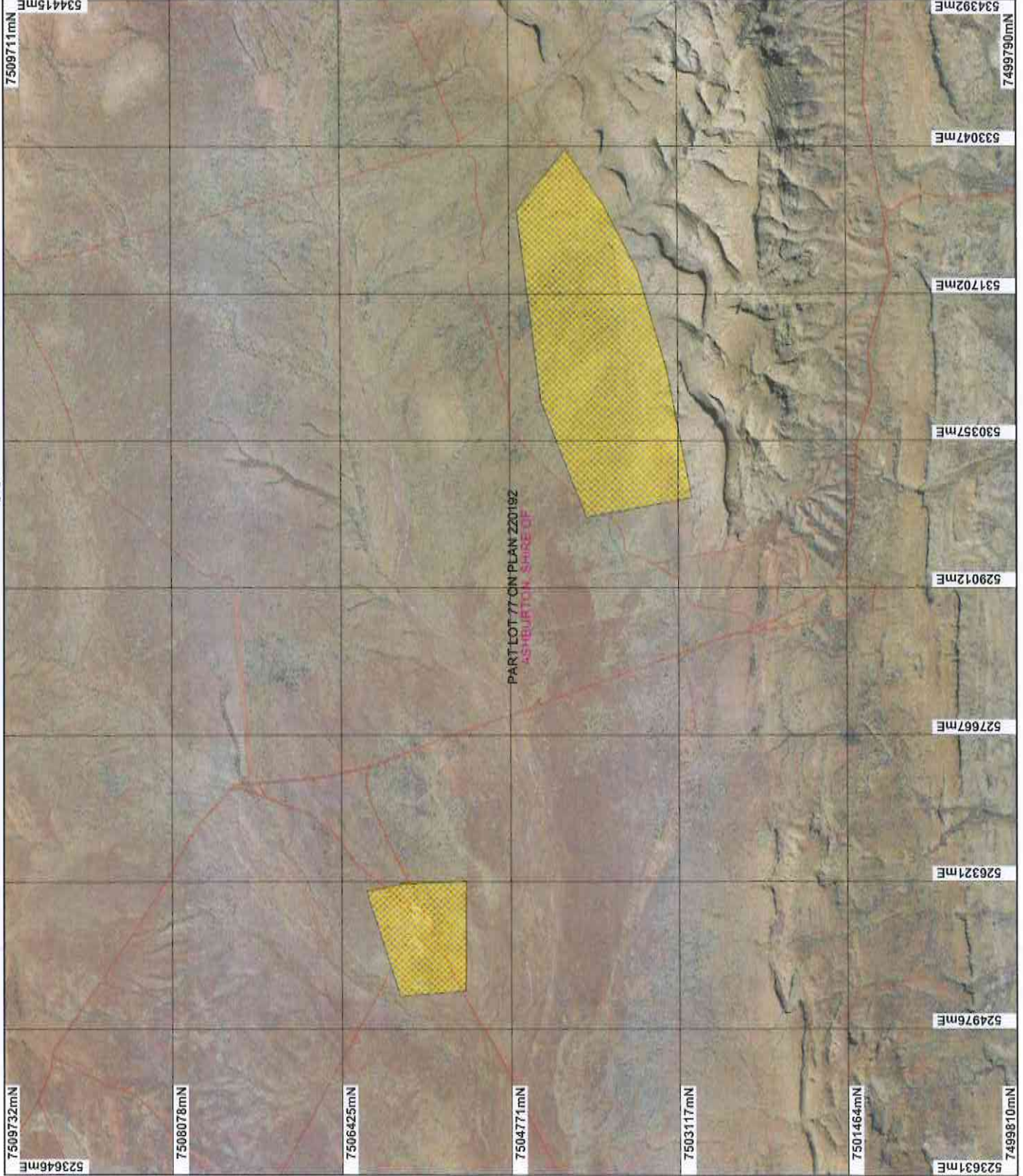
*Michael* Date 4/9/14  
M. Wainman

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.



# Plan 6110/1 (i)



## LEGEND

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

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



0 1.25 km

Scale 1:49932

(Approximate when reproduced at A4)

Geodetic Datum Australia 1984

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

*M. Warnock* Date: 4/1/14

M. Warnock

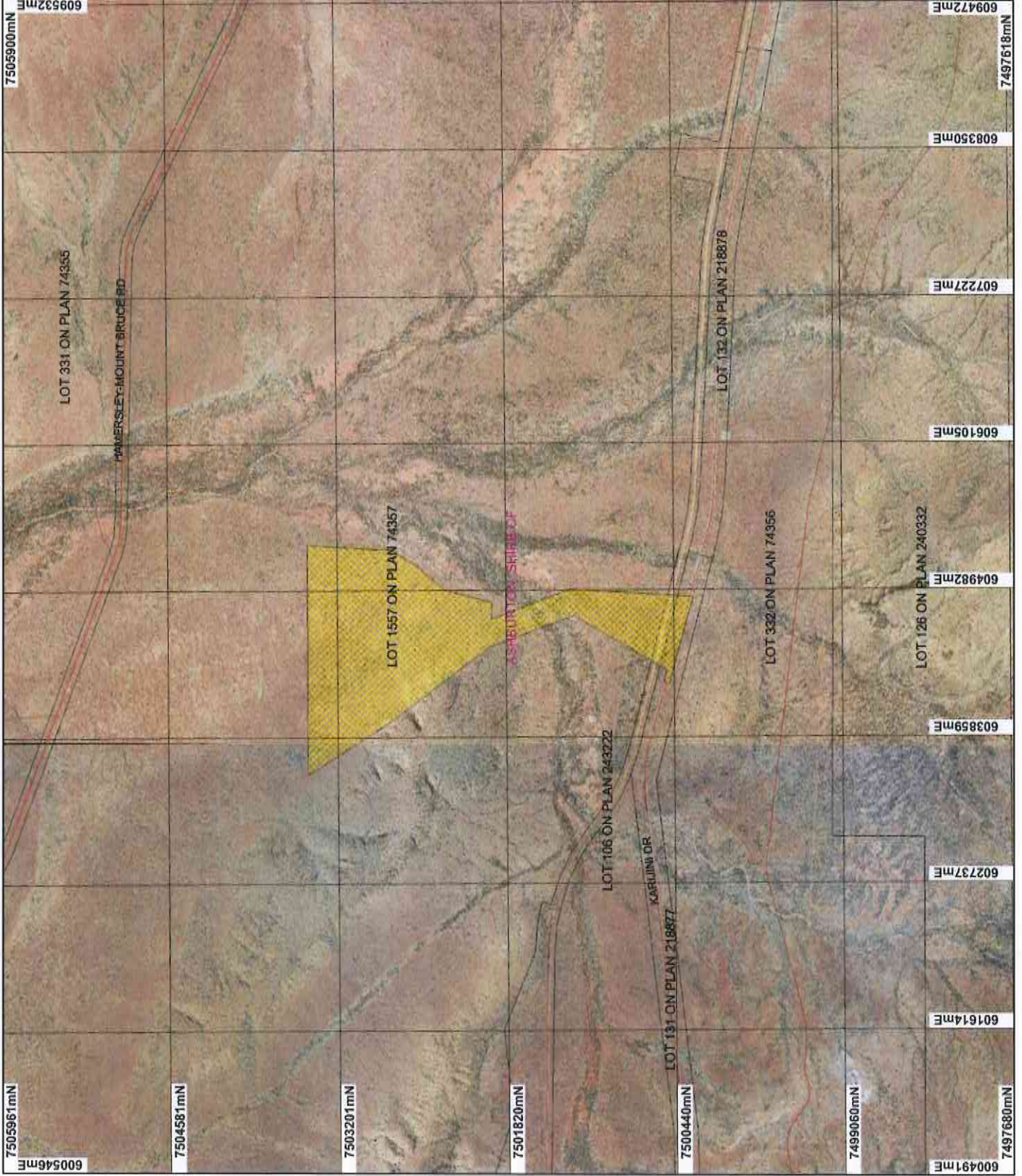
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# Plan 6110/1 (j)



## LEGEND

- Local Government Authorities
- Road Centrelines
- Cadastral
- Clearing Instruments
- Areas Approved to Clear
- Mount Bruce 50cm Orthomosaic - Landgate 2004
- Mount Lionel 50cm Orthomosaic - Landgate 2004

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



0 1 km

Scale 1:41635

(Approximate Area reproduced at A4)

Geospatial Data Australia 1994

Note: the data in this map have not been  
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distortion or measurement inaccuracies.

*M. Warlock* Date 4/9/16

M. Warlock

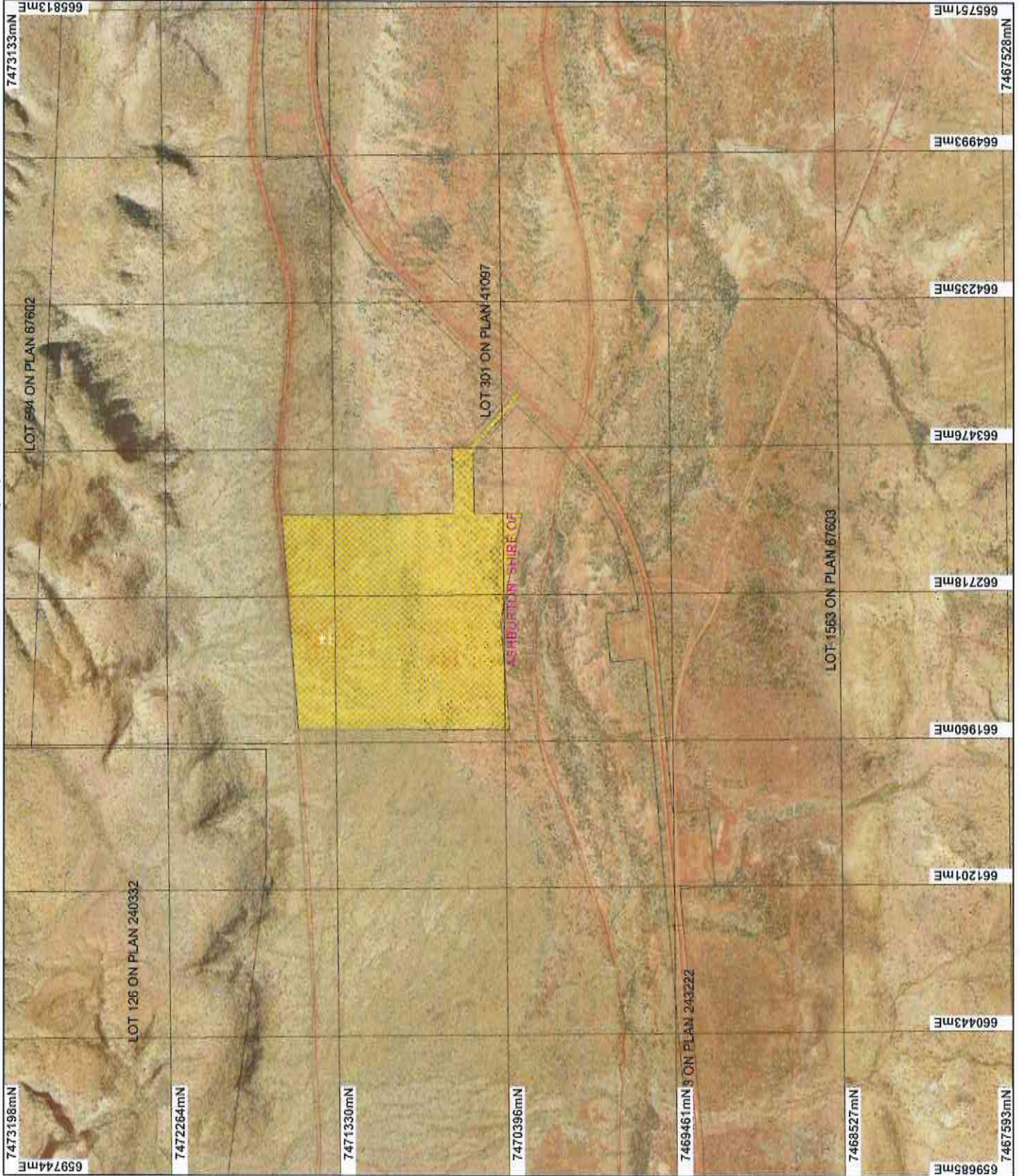
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# Plan 6110/1 (k)



## LEGEND

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

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



0 750 m

Scale 1:28144

(Approximate when reproduced at A4)

Geospatial Datum Australia 1994

Note: the data in this map have not been  
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distortion or measurement inaccuracies.

*M. Warnock* Date 4/9/14

M. Warnock

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

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# Plan 6110/1 (I)



**LEGEND**

- Local Government Authorities
- Road Centrelines
- Cadastral
- Clearing Instruments
- Areas Approved to Clear
- Weell' Woolli 50cm Orthomosaic - Landgate 2004

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

Scale 1:20132  
(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.

M. Warwick Date 4/9/14

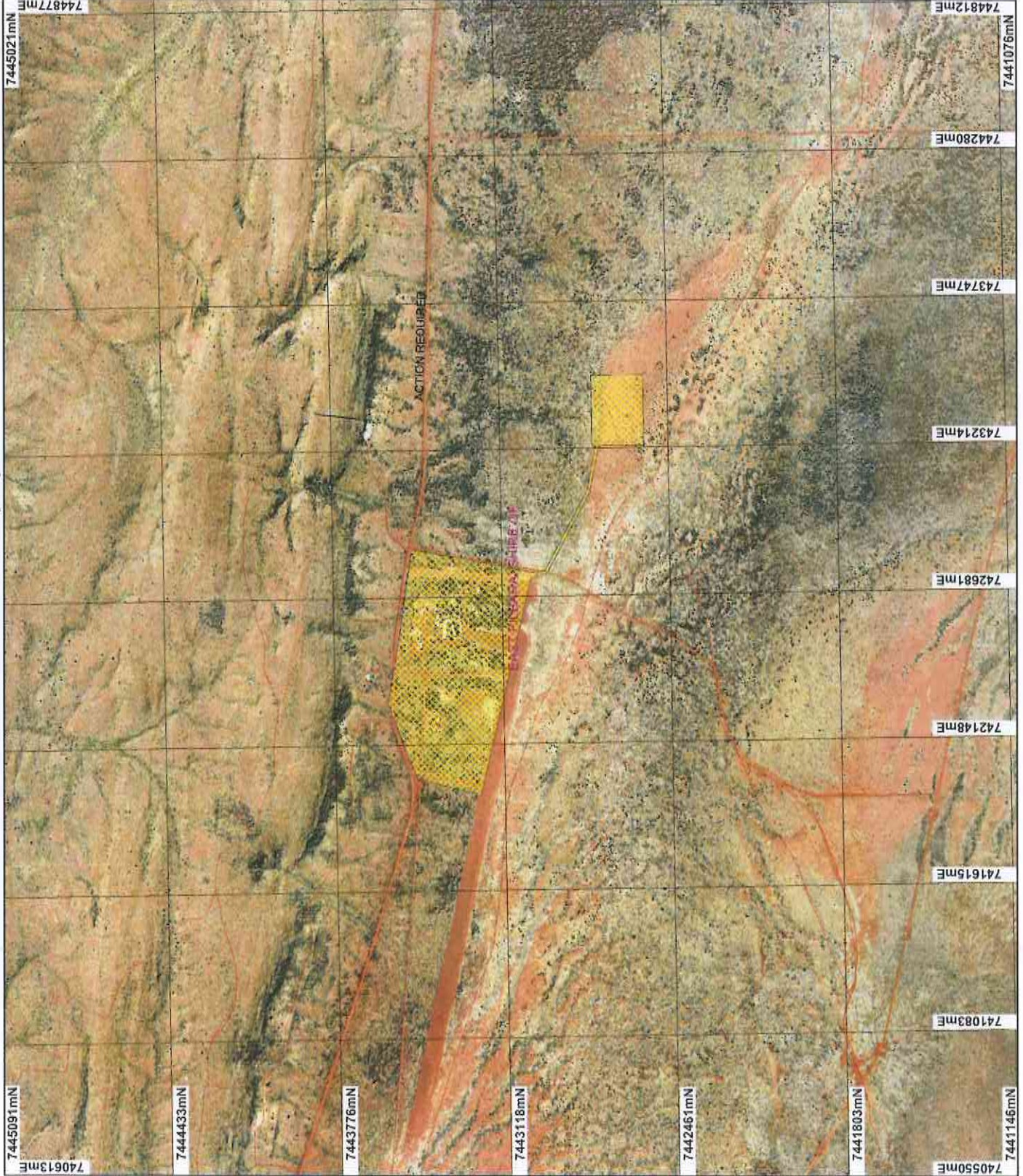
Office with delegated authority under Section 20 of the Environmental Protection Act 1986

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

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# Plan 6110/1 (m)



- LEGEND**
- Local Government Authorities
  - Road Centrelines
  - Cadastre
  - Clearing Instruments
  - Areas Approved to Clear
  - Ophthalimia 50cm Orthomosaic - Landgate 2004

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



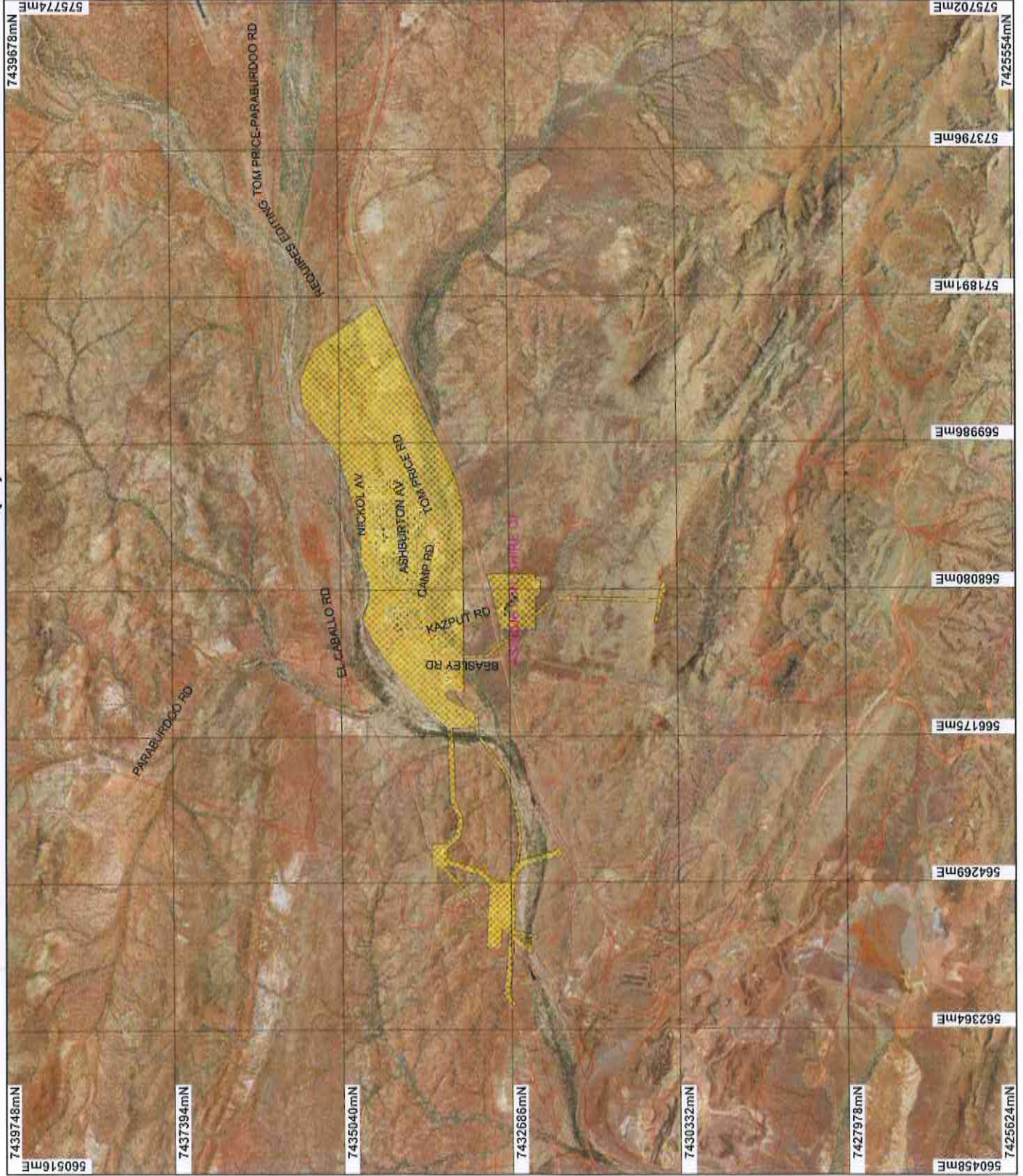
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 (Approximate when reproduced at A4)  
 Geocentric Datum Australia 1994  
 Note: the data in this map have not been projected. This may result in geometric distortion at measurement locations.

*M. Warwick*  
 Date 4/9/14

Officer with delegated authority under Section 20 of  
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 Information derived from this map should be  
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 by the agency acronym in the legend.



# Plan 6110/1 (n)



## LEGEND

- Local Government Authorities
  - Road Centrelines
  - Cadastre
  - Clearing Instruments
  - Areas Approved to Clear
- Paraburdoo Townsite Apr 2011 Mosaic  
Paraburdoo 50cm Orthomosaic - Landgate 2004

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



Scale 1:70038  
(Approximate when reproduced at A4)

Geospatial Datum: Australia 1984

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

*M.W. Finck* Date 4/9/14

M.W. Finck

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

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



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## 1. Application details

### 1.1. Permit application details

Permit application No.: 6110/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Pilbara Iron Company (Services) Pty Ltd

### 1.3. Property details

Property: Clearing authorised under this Permit is to be undertaken within land tenure or rights administered under the Mining Act 1904 (WA), Mining Act 1978 (WA), Land Act 1933 (WA), Land Administration Act 1997 (WA), Property Law Act 1969 (WA), Transfer of Land Act 1893 (WA), Strata Titles Act 1985 (WA), the Rights in Water and Irrigation Act 1914 (WA), the Water Corporation Act 1995 (WA), the Water Agencies (Powers) Act 1984 (WA) or the following State Agreement Acts –

- Iron Ore (Hamersley Range) Agreement Act 1963
- Iron Ore (Robe River) Agreement Act 1964
- Iron Ore (Hamersley Range) Agreement Act 1968 (Paraburdoo)
- Iron Ore (Mount Bruce) Agreement Act 1972
- Iron Ore (Channar Joint Venture) Agreement Act 1987
- Iron Ore (Hope Downs) Agreement Act 1992
- Iron Ore (Yandicoogina) Agreement Act 1996

Karijini Drive Road reserve (Lot 106 on Plan 218877)

Local Government Area: Shires Ashburton and Meekatharra, City of Karratha and Town of Port Hedland

### 1.4. Application

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

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 4 September 2014

## 2. Site Information

### 2.1. Existing environment and information

#### 2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Mapped Beard Vegetation Association 117 consists of Hummock grasslands, grass steppe; soft spinifex	The proposed clearing of 50 hectares within various properties, road reserves and unallocated Crown land, within the Shires of Ashburton and Meekatharra, City of Karratha and Town of Port Hedland, for the purpose of constructing town and camp infrastructure and associated works.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The condition of the vegetation was determined via aerial imagery and previous environmental assessments undertaken by the Department of Mines and Petroleum and the Department of Environment Regulation.
Mapped Beard Vegetation Association 152 consists of Hummock grasslands, grass steppe; soft & hard spinifex soft spinifex		To	
Mapped Beard Vegetation Association 173 consists of Hummock grasslands, low tree steppe; snappy gum over soft spinifex & <i>Triodia brizoides</i>		Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	
Mapped Beard Vegetation Association 607 consists of Hummock grasslands, low tree steppe; snappy gum & bloodwood over soft spinifex & <i>Triodia wiseana</i>			
Mapped Beard Vegetation Association 82 consists of Hummock grasslands, low tree steppe; snappy gum over <i>Triodia wiseana</i>			
Mapped Beard Vegetation Association 565 consists of Hummock grasslands, low tree steppe; bloodwood over soft spinifex			

Mapped Beard Vegetation Association 29 consists of Sparse low woodland; mulga, discontinuous in scattered groups

Mapped Beard Vegetation Association 18 consists of Low woodland; mulga (*Acacia aneura*)

Mapped Beard Vegetation Association 567 consists of Hummock grasslands, shrub steppe; mulga & kanji over soft spinifex & *Triodia basedowii*

Mapped Beard Vegetation Association 181 consists of Shrublands; mulga & snakewood scrub (Shepherd et al, 2001)

### 3. Assessment of application against clearing principles

#### Comments

The proposed clearing of 50 hectares within various properties, road reserves and unallocated Crown land, within the Shires of Ashburton and Meekatharra, City of Karratha and Town of Port Hedland, is for the purpose of constructing town and camp infrastructure and associated works. The proponent has advised that the application is to cover future minor clearing requirements for pre-existing towns and camps, whereby the proposed works will occur within the existing camp footprints.

The application areas are comprised of 14 existing town and campsite areas (depicted on Plans a – n) scattered over the Pilbara Bioregion. There are several priority and rare flora species mapped within a 20 kilometre radius of each of the application areas. Several of the application areas have been subject to previous clearing approvals issued by the Department of Mines and Petroleum (DMP) and the Department of Environment Regulation (DER), whereby flora surveys were undertaken for these projects. The application areas that have been completely surveyed for previous works include areas (b), (e), (h), (j), (k), and (m). The flora surveys corresponding with these areas were undertaken between 2008 and 2010 and did not identify any rare flora within any of the areas under application and no priority flora within areas (b), (e) or (m). Priority flora were identified in areas (h), (j), and (k), however the assessments undertaken for these areas by DMP and DER concluded that the proposed works would not impact on the conservation status of these species, given the number of individuals recorded in relation to the extent of surrounding populations.

There are no surveys available for the entirety of application areas (a), (c), (d), (f), (g), (i), (l), and (n), therefore the proponent will be required to undertake targeted flora surveys within these areas to determine the presence of rare and priority flora prior to undertaking any clearing.

There are numerous conservation significant fauna species located within the local area (20 kilometres radius) of each of the application areas. DER and DMP environmental assessments undertaken for previous clearing permits granted within application areas (b), (e), (h), (j), (k), and (m) determined that the proposed clearing within these areas was not likely to impact on significant habitat for conservation significant fauna species, and the proposed works for this application are considered to be less extensive than those previously assessed. DMP has previously issued clearing permits within a portion of application areas (c) and (g), whereby the environmental assessment of these areas determined that impacts to significant fauna habitat were unlikely, given that no conservation significant fauna were identified in fauna surveys, and that the surrounding landscape is extensively vegetated. It is not expected that impacts from the proposed clearing will be different to those identified in the abovementioned assessments, and is therefore unlikely to impact on significant habitat for fauna.

The impacts to fauna occurring within application areas (a), (d), (f), (i), (l) and (n), has not been previously assessed by DMP or DER, therefore fauna surveys will be required for these areas prior to the commencement of any clearing.

There are five priority ecological communities (PECs) mapped within the local area (20 kilometre radius). The closest of these is the priority 1 'Brockman Iron cracking clay communities of the Hamersley Range' which is mapped adjacent to application area (g). The application initially included a portion of this mapped PEC, however the proponent has since amended this area to exclude the mapped PEC and maintain a 100 metre buffer between the proposed works and the PEC boundary, therefore it is unlikely that the proposed clearing will impact on this community. The next closest PEC (priority 1) is located 6.8 kilometres south of application area (a). Given the distance of the proposed clearing to this PEC, it is unlikely to be impacted upon.

The closest threatened ecological community (TEC) to the proposed clearing is the 'Themeda grasslands on cracking clays (Hamersley Station, Pilbara)' mapped approximately 3.5 kilometres north of application area (g). This TEC is listed as Vulnerable, as endorsed by the Minister for Environment. A previous survey partially covering this application area did not identify the presence of any TECs on site and given the distance of the nearest application area to this occurrence, the proposed clearing is unlikely to impact on this community.

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001). The Shires of Ashburton and Meekatharra and City of Karratha and Town of Port Hedland retain approximately 99.7, 99.8, 98.1 and 98.4 per cent native vegetation respectively (Government of Western Australia, 2013). Therefore the proposed clearing is not within an extensively cleared landscape.

There is one major watercourse mapped within the application areas, this being a major tributary dissecting application area (j). The majority of the remaining application areas are dissected by minor non perennial watercourses, therefore some of the vegetation under application is likely to be growing within, or in association with a watercourse. The proposed clearing may cause some short term sedimentation of surface water to these minor watercourses, however, given that the proposed clearing of 50 hectares is scattered over 14 sites, and the minor nature of the majority of the watercourses, it is not expected that impacts to these watercourses will be significant. The proponent will be required to avoid clearing riparian vegetation where practicable and maintain surface flow of watercourses if impacts are unavoidable.

Given that the proposed clearing of 50 hectares is spread out amongst 14 different sites within extensively vegetated landscapes, it is unlikely that the proposed clearing will result in appreciable land degradation or cause or exacerbate the incidence of flooding.

The closest conservation areas to the proposed clearing are Murujuga National Park located 1.4 kilometres south east of application area (a), Millstream Chichester National Park located 1.6 kilometres south east of application area (b), and Karijini National Park located one kilometre south of application area (j), and 200 metres north west of application area (l). Given the distance of these conservation areas to the application areas, and the extensively vegetated landscape surrounding each area, the proposed clearing is not likely to impact on these national parks.

The proposed clearing will increase the risk of weeds spreading into adjacent vegetated areas. Weed management practices will assist in mitigating this risk.

Given the above, the proposed clearing is at variance to Principle (f), may be at variance to Principles (a), (b), (c) and (i) and is not likely to be at variance to any of the remaining Principles.

#### Methodology

##### References:

- Government of Western Australia (2013)
- Commonwealth of Australia (2001)

##### GIS Databases:

- Hydrography, hierachy
- Hydrography, linear
- DPaW, Tenure
- SAC Bio Datasets (Accessed August 2014)

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

#### Comments

The proposed clearing of 50 hectares within various properties, road reserves and unallocated Crown land, within the Shires of Ashburton, Meekatharra, City of Karratha and Town of Port Hedland, is for the purpose of constructing town and camp infrastructure and associated works. The proponent has advised that the application is to cover future minor clearing requirements for pre-existing towns and camps, whereby the proposed works will occur within the existing camp footprints.

There are several previous environmental approvals that have been issued for the existing camps and townsites described above. These approvals include several Notices of Intent to Clear, approvals from the Environmental Protection Authority, Department of Mines and Petroleum and Department of Environment Regulation. The proponent has advised that this application is to reduce the risk of non-compliance with the numerous implementation and reporting conditions currently in place, and to streamline the management of clearing approvals.

The application areas fall within existing live mining act tenure areas, with the exception of application area (b) which falls within a reserve under the vesting authority of the Water Corporation. The Water Corporation has issued a licence for the proponent to access this reserve for mining purposes.

There have been no submissions received from the public for the proposed clearing.

Several Aboriginal Sites of Significance are mapped within the application areas. It is the proponent's responsibility to comply with the Aboriginal Heritage Act 1972 and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

#### Methodology

##### GIS Databases:

- Aboriginal Sites of Significance

#### 4. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Government of Western Australia (2011); 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, Perth.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.