



## CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

<b>Purpose Permit number:</b>	CPS 8496/1
<b>Permit Holder:</b>	Shire of Cuballing
<b>Duration of Permit:</b>	14 August 2020 – 14 August 2035

In regards to conditions 14 and 15 of this Permit, it is noted that the Permit Holder has allocated 41.68 hectares of proposed offsets located at Lot 375 on Deposited Plan 84757 (being Crown Reserve 8861) and Lot 3575 on Deposited Plan 111952 (being Crown Reserve 19021) to this project. The nominated 41.68 hectare area contains similar environmental values to the application area, being; habitat for Carnaby's cockatoo (*Calyptrorhynchus latirostris*) and Forest red-tailed black cockatoo (*Calyptrorhynchus banksia naso*), vegetation commensurate with the Eucalyptus Woodlands of the Western Australian Wheatbelt threatened ecological community and Beard Vegetation Association 1023.

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

### PART I – CLEARING AUTHORISED

- Purpose for which clearing may be done**  
Clearing for the purpose of road widening, drainage, road upgrades and gravel pits.
- Land on which clearing is to be done**  
Wandering - Narrogin Road reserve, Cuballing (PINS , , 11527818, 11527819, 11527769, 11527766, 11527768, 11527767, 11527822, 11527823 and 11527820),  
Congelin - Narrogin Road reserve, Cuballing, Contine, Minigin and Williams (PINS 11320648, 11588156, 11320646, 11320647, 11333932, 11333931, 11333933, 11333934, 11518143, 1290790, 12102002, 11518141, 1290792, 12102003, 1290789, 12102001, 12102000)  
Stratherne Road reserve, Cuballing, Commodine, Stratherne, Townsendale and Yornaning (PINS 11488554, 11542346, 11523626, 12160635, 11523624, 12160639, 11462055).  
Popanyinning East Road reserve, East Popanyinning and Popanyinning (PINS 11550050, 11530696, 11530695, 11046387, 11425222,)  
Dixon Road reserve, Townsendale (PIN 11488549)  
Popanyinning West Road reserve, West Popanyinning (PINS 11524730, 11374624)  
Reeds Road reserve, East Popanyinning, Popanyinning and East Pingelly (PINS 11550049, 11550048, 11561790, 11561791, 11561792, 11561793)  
Hart Street road reserve, Cuballing (PINS 11430980 and 11430979)  
Clifford Street road reserve, Cuballing (PINS 11431013 and 11431011)  
Bunmulling Road reserve, Popanyinning (PIN 11425219, 11425215, 11425221)  
Hotham Street road reserve, Popanyinning (PIN 1319218)  
Crown Reserve 30772, Popanyinning  
Lot 200 on Plan 69950, Popanyinning Crown Reserve 14084, Popanyinning  
Lot 150 on Plan 69950, Popanyinning Crown Reserve 14084, Popanyinning  
Lot 95 on Plan 233390, Popanyinning Crown Reserve 10328, Popanyinning  
Lot 96 on Plan 130078, Popanyinning Crown Reserve 10328, Popanyinning  
Lot 11793 on Plan 155060, Townsendale

**3. Area of clearing**

- (a) The Permit Holder must not clear more than 1.428 hectares of native vegetation within the area cross-hatched yellow on attached Plan 8496/1a.
- (b) The Permit Holder must not clear more than 2.358 hectares of native vegetation within the area cross-hatched yellow on attached Plan 8496/1b.
- (c) The Permit Holder must not clear more than 0.797 hectares of native vegetation within the area cross-hatched yellow on attached Plan 8496/1c.
- (d) The Permit Holder must not clear more than 4.24 hectares of native vegetation within the combined areas cross-hatched yellow on attached Plan 8496/1d, Plan 8496/1e, Plan 8496/1f, Plan 8496/1g Plan 8496/1h and Plan 8496/1i within the Stratherne Road reserve.
- (e) The Permit Holder must not clear more than 1.315 hectares of native vegetation within the combined areas cross-hatched yellow on attached Plan 8496/1j and Plan 8496/1k within the Wandering - Narrogin Road reserve.
- (f) The Permit Holder must not clear more than 2.37 hectares of native vegetation within the combined areas cross-hatched yellow on attached Plan 8496/1l, Plan 8496/1m, Plan 8496/1n and Plan 8496/1o, within the Congelin -Narrogin Road reserve.
- (g) The Permit Holder must not clear more than 1.4 hectares of native vegetation within the combined areas cross-hatched yellow on attached Plan 8496/1p, Plan 8496/1q and Plan 8496/1r within the Popanyinning East Road reserve.
- (h) The Permit Holder must not clear more than 0.54 hectares of native vegetation within the combined areas cross-hatched yellow on attached Plan 8496/1s and Plan 8496/1t within the Popanyinning West Road reserve.
- (i) The Permit Holder must not clear more than 1.722 hectares of native vegetation within the combined areas cross-hatched yellow on attached Plan 8496/1u, Plan 8496/1v, Plan 8496/1w and Plan 8496/1x within the Reeds Road reserve.
- (j) The Permit Holder must not clear more than 0.212 hectares of native vegetation within the area cross-hatched yellow on attached Plan 8496/1y within the Hart Road reserve.
- (k) The Permit Holder must not clear more than 0.466 hectares of native vegetation within the combined areas cross-hatched yellow on attached Plan 8496/1z, and Plan 8496/1aa within the Clifford Street road reserve.

**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.

**5. Type of clearing authorised**

This Permit authorises the Permit Holder to clear native vegetation for the activities described in condition 1 of this Permit for the purpose of carrying out works under the *Local Government Act 1995* or any other written law.

**6. Period in which clearing is authorised**

The Permit Holder shall not clear any native vegetation after 14 August 2030.

**PART II –MANAGEMENT CONDITIONS**

**7. Avoid, minimise and reduce the impacts and extent of clearing**

The Permit Holder must apply the following principles in relation to clearing authorised under this Permit, 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* where it is reasonably practicable to do so.

**8. Dieback and weed control**

When undertaking any clearing authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds* and *dieback*:

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

**9. Fauna management – Black cockatoos**

(a) Prior to undertaking any clearing authorised under this Permit within the combined areas hatched yellow on Plan 8496/1a, Plan 8496/1b, Plan 8496/1c, Plan 8496/1d, Plan 8496/1e, Plan 8496/1f, Plan 8496/1g, Plan 8496/1h, Plan 8496/1i, Plan 8496/1j, Plan 8496/1k, Plan 8496/1l, Plan 8496/1m, Plan 8496/1n, Plan 8496/1o, Plan 8496/1p, Plan 8496/1q, Plan 8496/1r, Plan 8496/1s, Plan 8496/1t, Plan 8496/1u, Plan 8496/1v, Plan 8496/1w, Plan 8496/1x and Plan 8496/1y, the Permit Holder shall engage a *fauna specialist* to conduct a *fauna survey* of the Permit Area to identify *black cockatoo habitat tree/s* being utilised by fauna species listed below:

- (i) *Calyptorhynchus lateriosis* (*Carnaby's cockatoo*); and
  - (ii) *Calyptorhynchus banksii naso* (*Forest Red-tailed Black Cockatoo*).
- (b) Where *black cockatoo habitat tree/s* are identified under condition 9(a) of this Permit, the Permit Holder shall engage a *fauna specialist* to map *black cockatoo habitat tree/s* within the Permit Area.
- (c) Each *black cockatoo habitat tree* identified shall be inspected by a *fauna specialist* for evidence of current or past breeding use by Carnaby's cockatoo (*Calyptorhynchus latirostris*) or forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*).
- (d) Where a *black cockatoo habitat tree* with no evidence of current or past use by Carnaby's cockatoo (*Calyptorhynchus latirostris*) or forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*) in accordance with condition 9(a) of this Permit, that tree(s) shall only be cleared immediately after the inspection.
- (e) Where *black cockatoo habitat tree/s* are identified within the combined areas hatched yellow on Plan 8496/1a, Plan 8496/1b, Plan 8496/1c, Plan 8496/1d, Plan 8496/1e, Plan 8496/1f, Plan 8496/1g, Plan 8496/1h, Plan 8496/1i, Plan 8496/1j, Plan 8496/1k, Plan 8496/1l, Plan 8496/1m, Plan 8496/1n, Plan 8496/1o, Plan 8496/1p, Plan 8496/1q, Plan 8496/1r, Plan 8496/1s, Plan 8496/1t, Plan 8496/1u, Plan 8496/1v, Plan 8496/1w, Plan 8496/1x and Plan 8496/1y and are showing evidence of current or past breeding use by Carnaby's cockatoo (*Calyptorhynchus latirostris*) or forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*) under condition 9(c) of this Permit, the Permit Holder shall ensure that no clearing within 10 metres of *black cockatoo habitat tree/s* showing evidence or past or current use of the identified fauna occurs.
- (f) Within two months of clearing authorised under this Permit within the combined areas hatched yellow on Plan 8496/1a, Plan 8496/1b, Plan 8496/1c, Plan 8496/1d, Plan 8496/1e, Plan 8496/1f, Plan 8496/1g, Plan 8496/1h, Plan 8496/1i, Plan 8496/1j, Plan 8496/1k, Plan 8496/1l, Plan 8496/1m, Plan 8496/1n, Plan 8496/1o, Plan 8496/1p, Plan 8496/1q, Plan 8496/1r, Plan 8496/1s, Plan 8496/1t, Plan 8496/1u, Plan 8496/1v, Plan 8496/1w, Plan 8496/1x and Plan 8496/1y, the Permit Holder shall provide the results of the *fauna survey* in a report to the *CEO*.

- (g) The *fauna survey* report must include the following;
  - (i) the location of the *black cockatoo habitat tree/s* 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, listed in condition 9(a) if 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;
  - (iii) the name and amount of each fauna species identified;
  - (iv) if the *black cockatoo habitat tree/s* identified show current or past use by black cockatoo species;
  - (v) the methodology, used to survey the Permit Area;
  - (vi) a photo of the *black cockatoo habitat tree/s* identified; and
  - (vii) a description of the *black cockatoo habitat tree/s* identified, including:
    - a. species of *black cockatoo habitat tree/s*; and
    - b. condition of the *black cockatoo habitat tree/s*.

**10. Fauna management – red-tailed phascogale**

- (a) Prior to undertaking any clearing authorised under this Permit:
  - (i) the combined areas hatched yellow on Plan 8496/1a, Plan 8496/1b, Plan 8496/1c, Plan 8496/1d, Plan 8496/1e, Plan 8496/1f, Plan 8496/1g, Plan 8496/1h, Plan 8496/1i, Plan 8496/1j, Plan 8496/1k, Plan 8496/1l, Plan 8496/1m, Plan 8496/1n, Plan 8496/1o, Plan 8496/1p, Plan 8496/1q, Plan 8496/1r, Plan 8496/1s, Plan 8496/1t, Plan 8496/1u, Plan 8496/1v, Plan 8496/1w, Plan 8496/1x and Plan 8496/1y, shall be inspected by a *fauna specialist* who shall identify *red-tailed phascogale habitat trees*; and
  - (ii) each *red-tailed phascogale habitat tree* identified shall be inspected by a *fauna specialist* for evidence of use by red-tailed phascogale (*Phascogale calura*).
- (b) Where a *red-tailed phascogale habitat tree(s)* occupied by red-tailed phascogale is identified and cannot be avoided in accordance with condition 10(a) of this Permit, that tree(s) shall only be cleared:
  - (i) immediately after relocation of the red-tailed phascogale individual(s) by a *fauna specialist* in accordance with a fauna licence issued pursuant to Regulation 28 of the *Biodiversity Conservation Regulations 2018*; or
  - (ii) immediately after a repeat inspection undertaken by a *fauna specialist* if that inspection confirms it is not occupied by red-tailed phascogale.
- (c) Where a *red-tailed phascogale habitat tree(s)* with evidence of use (but not occupied) by red-tailed phascogale is identified and cannot be avoided in accordance with condition 7(a) of this Permit, that tree(s) shall only be cleared:
  - (iii) immediately after the inspection; or
  - (iv) immediately after a repeat inspection undertaken by a *fauna specialist* if that inspection confirms it is not occupied by red-tailed phascogale.
- (d) Within two months of undertaking any clearing authorised under this Permit within the combined areas hatched yellow on Plan 8496/1a, Plan 8496/1b, Plan 8496/1c, Plan 8496/1d, Plan 8496/1e, Plan 8496/1f, Plan 8496/1g, Plan 8496/1h, Plan 8496/1i, Plan 8496/1j, Plan 8496/1k, Plan 8496/1l, Plan 8496/1m, Plan 8496/1n, Plan 8496/1o, Plan 8496/1p, Plan 8496/1q, Plan 8496/1r, Plan 8496/1s, Plan 8496/1t, Plan 8496/1u, Plan 8496/1v, Plan 8496/1w, Plan 8496/1x and Plan 8496/1y, the Permit Holder shall provide the results of the fauna survey in a report to the CEO.
- (e) The fauna survey report must include the following;
  - (i) the location of the *red-tailed phascogale habitat tree(s)* 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, listed in condition 10(a) if 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;
- (iii) the name and amount of each fauna species identified;
- (iv) if the *red-tailed phascogale habitat tree(s)* identified show current use by red-tailed phascogale;
- (v) the methodology, used to survey the Permit Area;
- (vi) a description of the *red-tailed phascogale habitat tree(s)* identified;
- (vii) the time and date each red-tailed phascogale individual was relocated by a *fauna specialist*;
- (viii) the location where each red-tailed phascogale individual was relocated to, recorded using a GPS unit set to GDA94, expressing the geographical coordinates in Eastings and Northings or decimal degrees; and
- (ix) the time and date each red-tailed phascogale habitat tree with evidence of use was cleared.

**11. Flora management**

- (a) Prior to undertaking any clearing authorised under this Permit, the Permit Holder must demarcate the priority flora (*Hemigenia* sp. Newdegate (E. Bishop 75)) identified within report ‘Reconnaissance and Targeted Flora and Vegetation Survey Shaddicks Road Gravel Pit’ prepared by Ecoedge; at the following location (coordinate system : GDA94/MGA Zone 50).

Species name	Conservation status	No. of plants	Easting	Northing
<i>Hemigenia</i> sp. Newdegate (E. Bishop 75)	Priority 1	1	524698	6385556

- (b) When undertaking any clearing authorised under this Permit, the Permit Holder shall not cause or allow:
  - (i) clearing within 10 metres of the identified priority flora within condition 11(a); and
  - (ii) clearing of the identified priority flora within condition 11(a).

**12. Threatened and Priority Flora Management**

- (a) Prior to undertaking any clearing authorised under this Permit within the combined areas hatched yellow on Plan 8496/1c, Plan 8496/11, Plan 8496/1m, Plan 8496/1n, Plan 8496/1o, Plan 8496/1p, Plan 8496/1q, Plan 8496/1r, Plan 8496/1s, Plan 8496/1t, Plan 8496/1u, Plan 8496/1v, Plan 8496/1w and Plan 8496/1x, the Permit Holder shall engage a *botanist* to conduct a *targeted flora survey* of the Permit Area for the presence of threatened flora listed under the *Biodiversity Conservation Act 2016* and *priority flora*.
- (b) Where threatened flora are identified under condition 12(a) of this Permit, the Permit Holder shall not cause or allow:
  - (i) clearing within 50 metres of the identified threatened flora; and
  - (ii) clearing of the identified threatened flora.
- (c) Where *priority 1* and *2* flora are identified under condition 12(a) of this Permit, the Permit Holder shall not cause or allow:
  - (i) clearing within 10 metres of the identified *priority 1* and *2* flora; and
  - (ii) clearing of the identified *priority 1* and *2* flora.
- (d) Where *priority 3* and *4* flora are identified under condition 12(a) of this Permit, the Permit Holder shall:
  - (i) not cause or allow clearing of more than 50 percent of the population of the identified *priority 3* or *4* flora; and
  - (ii) prior to clearing, map the population of the identified *priority 3* and *4* flora that is not to be cleared under condition 12(d)(i).
- (e) Within two months of undertaking any clearing authorised under this Permit within the combined

areas hatched yellow on Plan 8496/1c, Plan 8496/11, Plan 8496/1m, Plan 8496/1n, Plan 8496/1o, Plan 8496/1p, Plan 8496/1q, Plan 8496/1r, Plan 8496/1s, Plan 8496/1t, Plan 8496/1u, Plan 8496/1v, Plan 8496/1w and Plan 8496/1x, the Permit Holder shall provide the results of the *targeted flora survey* in a report to the CEO.

- (f) If threatened or *priority flora* are identified within the areas hatched yellow on Plan 8496/1c, Plan 8496/11, Plan 8496/1m, Plan 8496/1n, Plan 8496/1o, Plan 8496/1p, Plan 8496/1q, Plan 8496/1r, Plan 8496/1s, Plan 8496/1t, Plan 8496/1u, Plan 8496/1v, Plan 8496/1w and Plan 8496/1x, the *targeted flora survey* report must include the following:
  - (i) the location of each threatened and *priority flora*, identified under condition 12(a) of this permit, 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;
  - (ii) the species name of each threatened and *priority flora* species identified under condition 12(a) of this Permit;
  - (iii) map/s showing the location of any identified population of *priority* 3 or 4 flora cleared and the remaining population; and
  - (iv) the methodology used to survey the permit area.

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

The Permit Holder shall:

- (a) Retain the vegetative material and topsoil removed by clearing authorised under this Permit within the combined areas hatched yellow areas on Plan 8496/1a, Plan 8496/1b and Plan 8496/1c and stockpile the vegetative material and topsoil in an area that has already been cleared.
  - (i) within the Stratherne Road reserve on Plan 8496/1d, Plan 8496/1e, Plan 8496/1f, Plan 8496/1g Plan 8496/1h and Plan 8496/1i, retention of sufficient vegetative material and topsoil in an area that has already been cleared for the rehabilitation of 0.43 hectares of understory vegetation.
  - (ii) within the Popanyinning East Road reserve on Plan 8496/1p, Plan 8496/1q and Plan 8496/r, retention of sufficient vegetative material and topsoil in an area that has already been cleared for the rehabilitation of 1.14 hectares of understory vegetation.
- (b) Within 6 months following clearing authorised under this Permit, the Permit Holder shall *revegetate* and *rehabilitate* the area(s) that are no longer required for the purpose for which they were cleared under this Permit within the combined areas hatched yellow areas on Plan 8496/1a, Plan 8496/1b and Plan 8496/1c by:
  - (i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land;
  - (ii) ripping the ground on the contour to remove soil compaction; and
  - (iii) laying the vegetative material and topsoil retained under condition 13(a) on the cleared area(s) no longer required for the purpose for which they were cleared under this Permit.
- (c) Within 6 months following clearing authorised under this Permit, the Permit Holder shall *revegetate* and *rehabilitate* within the Stratherne Road reserve and Popanyinning East Road reserve identified under condition 13(a)(i) and 13(a)(ii) by:
  - (i) laying the vegetative material and topsoil retained under condition 13(a)(i) and 13(a)(ii) within the road reserve;
  - (ii) *revegetation* and *rehabilitation* of understory vegetation only;
  - (iii) a total of 0.43 hectares of understory vegetation to be *revegetated* and *rehabilitated* within the Stratherne Road reserve identified under condition 13(a)(i); and
  - (iv) a total of 1.14 hectares of understory vegetation to be *revegetated* and *rehabilitated* within the Popanyinning East Road reserve identified under condition 13(a)(ii).
- (d) Within 18 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 13(b) and 13(c) of this Permit, the Permit Holder shall:

- (i) engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and
  - (ii) engage an *environmental specialist* to make a determination as to whether or not the composition, structure and density determined under condition 13(d)(i) of this Permit will, without further *revegetation*, result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area.
- (e) If the determination made by the *environmental specialist* under condition 13(d)(ii) is that the composition structure and density determined under condition 13(d)(i) of this Permit will not, without further *revegetation*, result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, the Permit Holder shall *revegetate* the area by deliberately *planting* and/or *direct seeding* native vegetation seeds that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area.
- (f) Where additional *planting* or *direct seeding* of native vegetation is undertaken in accordance with condition 13(e) of this Permit, the Permit Holder shall repeat the activities required by condition 13(d) and 13(e) within 24 months of undertaking the additional *planting* or *direct seeding* of native vegetation.
- (g) Where a determination is made by an *environmental specialist* under condition 13(d)(ii) that the composition, structure and density within areas *revegetated* and *rehabilitated* will result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, that determination shall be submitted to the *CEO* within three months of the determination being made by the *environmental specialist*.
- (h) During the next *optimal time* occurring after receiving notice from the *CEO*:
- (i) stating that the *CEO* disagrees with the determination submitted under condition 13(g); and
  - (ii) specifying the required further *planting* of *local provenance* propagating material and/or *direct seeding* of *local provenance* seeds that in the *CEO's* reasonable opinion are necessary to ensure that the native vegetation will result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, the Permit Holder must carry out the further *planting* and/or *direct seeding* specified in the notice.

### **PART III – OFFSETS**

- 14. Offset – Lot 375 on Deposited Plan 84757 (being Crown Reserve 8861)**  
 The Permit Holder shall not clear more than 3.49 hectares of native vegetation under the authority of this Permit unless the Permit Holder has:
- (a) Provided the *CEO* a copy of the executed change in purpose of the area cross-hatched red on attached Plan 8496/1ab within Lot 375 on Deposited Plan 84757 (being Crown Reserve 8861) from ‘Gravel’ to ‘Conservation’; or
  - (b) In the event that the change in purpose of Lot 375 on Deposited Plan 84757 (being Crown Reserve 8861) is not achieved in accordance with condition 14(a) of this Permit, the Permit Holder must provide documentary evidence to the *CEO* that funding of \$20,805.40 has been transferred to the Department of Water and Environmental Regulation for the purpose of establishing or maintaining native vegetation.
- 15. Offset – Lot 3575 on Deposited Plan 111952 (being Crown Reserve 19021)**
- (a) The Permit Holder shall not clear more than 13.4 hectares of native vegetation under the authority of this Permit unless the Permit Holder has provided the *CEO* a copy of the executed change in purpose and subdivision of the area cross-hatched red on attached Plan 8496/1ac from the remaining portion within Lot 3575 on Deposited Plan 111952 (being Crown Reserve 19021) from ‘Gravel’ to ‘Conservation’; or

- (b) In the event that the change in purpose of Lot 3575 on Deposited Plan 111952 (being Crown Reserve 10921) is not achieved in accordance with condition 15(a) of this Permit under the process of subdivision, the Permit holder must provide the *CEO* a copy of the executed change in purpose of the area crosshatched red on attached Plan 8496/1ad within Lot 3575 on Deposited Plan 111952 (being Crown Reserve 19021) from 'Gravel' to 'Conservation'; or
- (c) In the event that the change in purpose of Lot 3575 on Deposited Plan 111952 (being Crown Reserve 10921) is not achieved in accordance with condition 15(a) or 15 (b) of this Permit, the Permit holder must provide documentary evidence to the *CEO* that funding of \$59,637 has been transferred to the Department of Water and Environmental Regulation for the purpose of establishing or maintaining native vegetation.

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

##### **16. Records must be kept**

- (a) The Permit Holder must maintain the following records for activities in relation to the clearing of native vegetation in each area described in condition 3 of this Permit:
  - (i) the size of the area cleared (in hectares);
  - (ii) the boundaries of the area recorded as a *shapefile* or a co-ordinate of 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;
  - (iii) the date(s) on which the clearing was done;
  - (iv) the actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 7 of this Permit;
  - (v) actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with condition 8 of this Permit; and
  - (vi) flora and fauna management measures undertaken in accordance with conditions 9, 10, 11 and 12 of this Permit.
- (b) In relation to the revegetation of areas pursuant to condition 13 of this Permit:
  - (i) a description of the *revegetation* and *rehabilitation* activities undertaken;
  - (ii) the size of the area *revegetated* and *rehabilitated* (in hectares);
  - (iii) the date that the area was *revegetated* and *rehabilitated*; and
  - (vii) actions and timing of remedial actions undertaken within the area that was *revegetated* and *rehabilitated* where the *revegetation* will not result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area.

##### **17. 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 16 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 has been undertaken, a written report confirming that no clearing under this Permit has been undertaken, must be provided to the *CEO* on or before 30 June of each year.
- (c) Prior to 16 May 2035, the Permit Holder must provide to the *CEO* a written report of records required under condition 16 of this Permit where these records have not already been provided under condition 17(a) of this Permit.

#### **DEFINITIONS**

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

***black cockatoo habitat tree/s:*** means trees that have a diameter, measured at 1.5 metres from the base of the tree, of 50 centimetres or greater (or 30 centimetres or greater for *Eucalyptus salmonophloia* or *Eucalyptus wandoo*) that contain hollows suitable for breeding by Carnaby's cockatoo (*Calyptorhynchus latirostris*) or forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*);



**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.

**CEO** means the Chief Executive Officer of the Department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*;

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

**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;

**environmental specialist** means a person who holds a tertiary qualification in environmental science or equivalent, and has a minimum of 2 years work experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit, or who is approved by the *CEO* as a suitable environmental specialist;

**environmental value** has the same meaning as it is given in section 3 of the *Environmental Protection Act 1986*;

**evidence** means showing chew marks or scratching's on the habitat tree representative of the species being surveyed, the presence of the species entering or leaving the habitat tree and/or the presence of chicks/young;

**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 *Biodiversity Conservation Regulations 2018*;

**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 and where conservation significant fauna are identified in the Permit Area, also includes a fauna survey of surrounding areas to place the Permit Area into local context;

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

**Interim Biogeographic Regionalisation for Australia** or **IBRA** means the national and regional planning framework for the systematic development of a comprehensive, adequate and representative 'CAR' National Reserve System within Thackway and Cresswell 1995, 'An Interim Biogeographic Regionalisation for Australia: a framework for establishing the national system of reserves';

**local provenance** means native vegetation seeds and propagating material from natural sources within 50 kilometres and the same IBRA subregion 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;

**optimal time** means the period from May to July for undertaking *planting* and *seeding*;

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

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

**Rehabilitate, rehabilitated and rehabilitation** means actively managing an area containing native vegetation in order to improve the ecological function of that area;

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

**revegetate, revegetated and revegetation** means the re-establishment of a cover of native vegetation in an area such that the species composition, structure, density and *condition* is similar to pre-clearing vegetation types in that area, and can involve regeneration, direct seeding and/or planting;

**red-tailed phascogale habitat tree(s)** means a tree of the *Eucalyptus* genus that contains a hollow(s) suitable to be used by red-tailed phascogale (*Phascogale calura*);

**site preparation** means management of existing site topsoil and preparation of the finished soil surface, for example by ripping or tilling the soil surface and respreading site topsoil and chipped native vegetation;

**shapefile** means a shapefile consisting of polygons using the Geocentric Datum of Australia (GDA);

**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 must also include a minimum of a 10 metre radius of the surrounding areas to place the Permit Area into local context;

**vegetation establishment period** means a period of at least two summers after the *revegetation* during which time replacement and infill *revegetation* works may be required for areas in which *revegetation* has been unsuccessful, and involves regular inspections of *revegetation* sites to monitor the success of *revegetation*; and

**weed/s** means any plant -

- (i) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
- (ii) published in a Department of Biodiversity, Conservation and Attractions Regional Weed Rankings Summary, regardless of ranking; or
- (iii) not indigenous to the area concerned.



---

Mathew Gannaway  
MANAGER  
NATIVE VEGETATION REGULATION

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

22 July 2020

# Plan 8496/1a


117°6'43.200"E

117°6'50.400"E



## Legend

### Map Layers


-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



0 25 50 m



  
Mathew  
Gannaway  
2020.07.22  
12:08:13 +08'00'

Officer delegated under section 20 of the  
Environmental Protection Act 1986



GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8496/1aa




117°11'6.000"E



117°11'6.000"E

## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



0 25 50 m



*Mathew Gannaway*

Mathew  
Gannaway  
2020.07.22  
12:07:09  
+08'00'

Officer delegated under section 20 of the  
Environmental Protection Act 1986



GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8496/1ab

117°9'50.400"E




117°9'57.600"E

117°10'4.800"E



## Legend

### Map Legend

-  CPS subject to conditions
-  Land TenureL.GATE - 226
-  Local Government Authorities

- Road Centrelines
-  Local Rd - Sealed

Image



1:3500

0 50 100 m



Mathew  
Gannaway  
2020.07.22  
12:07:41  
+08'00'

Officer delegated under section 20 of the  
Environmental Protection Act 1986






GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8496/1ac




## Legend

### Map Legend

-  CPS subject to conditions
-  Land TenureL GATE - 226
-  Local Government Authorities

### Road Centrelines

-  Local Rd - Sealed

### Image



1:5500

0 50 100 m



Mathew  
Gannaway  
2020.07.22  
12:06:40  
+08'00'

Officer delegated under section 20 of the  
Environmental Protection Act 1986



GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8496/1b

117°15'43.200"E

117°15'50.400"E

32°39'57.600"S

32°39'57.600"S




32°40'4.800"S

32°40'4.800"S



## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



0 25 50 m



Mathew  
Gannaway  
2020.07.22

12:06:12 +08'00'

Officer delegated under section 20 of the  
Environmental Protection Act 1986






GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8496/1c



## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



0 25 50 m



*Mathew Gannaway*

Mathew  
Gannaway  
2020.07.22  
12:05:44 +08'00'

Officer delegated under section 20 of the  
Environmental Protection Act 1986



GOVERNMENT OF  
WESTERN AUSTRALIA



# Plan 8496/1d

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


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117°14'9.600"E



## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



0 0.25 0.5 km



*Mathew Gannaway*

Mathew  
Gannaway  
2020.07.22  
12:05:16 +08'00'

Officer delegated under section 20 of the  
Environmental Protection Act 1986



GOVERNMENT OF  
WESTERN AUSTRALIA

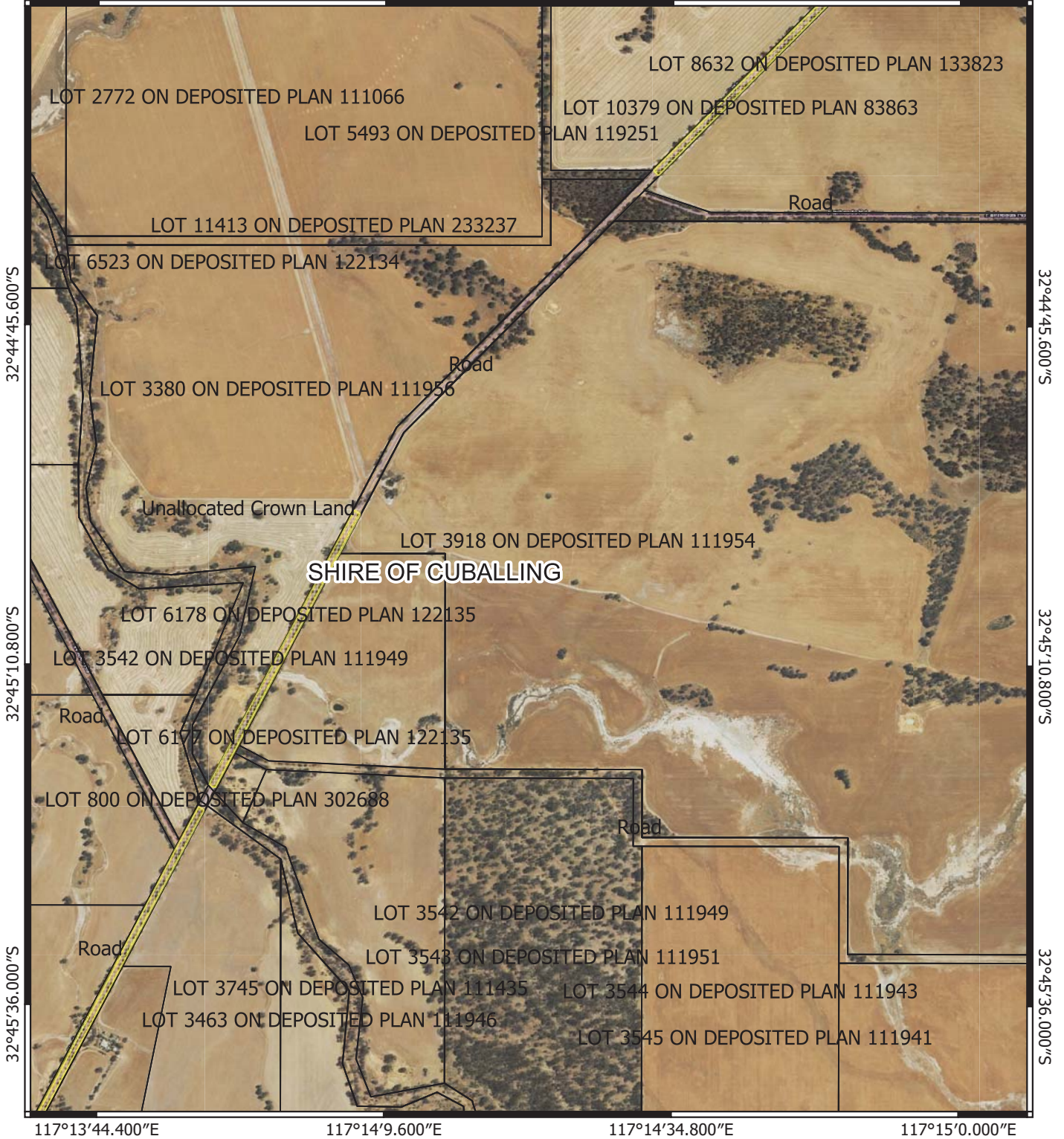
# Plan 8496/1e

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117°14'9.600"E

117°14'34.800"E

117°15'0.000"E



117°13'44.400"E




117°14'9.600"E

117°14'34.800"E

117°15'0.000"E

## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



0 0.25 0.5 km



*Mathew Gannaway*

Mathew  
Gannaway  
2020.07.22  
12:04:50 +08'00'

Officer delegated under section 20 of the  
Environmental Protection Act 1986



GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8496/1f

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117°15'0.000"E

117°15'25.200"E

117°15'50.400"E

32°43'30.000"S

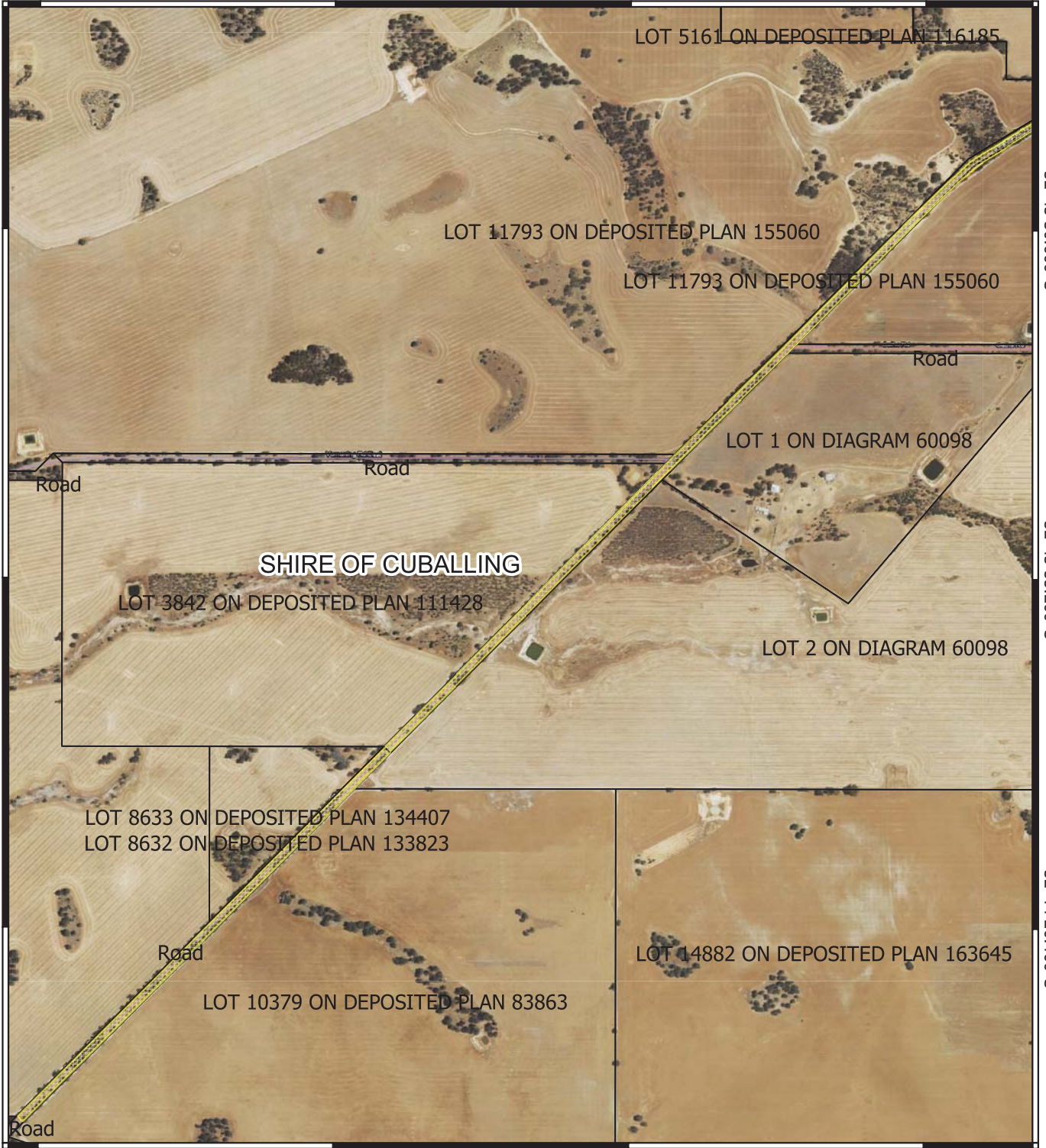
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32°44'20.400"S

32°43'30.000"S

32°43'55.200"S

32°44'20.400"S



117°14'34.800"E




117°15'0.000"E

117°15'25.200"E

117°15'50.400"E

## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



0 0.25 0.5 km



Mathew  
Gannaway  
2020.07.22  
12:04:24 +08'00'

Officer delegated under section 20 of the  
Environmental Protection Act 1986



GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8496/1g

117°16'15.600"E

117°16'40.800"E

117°17'6.000"E

32°42'14.400"S

32°42'39.600"S

32°43'14.800"S

32°42'14.400"S

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32°43'14.800"S





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117°16'40.800"E

117°17'6.000"E

## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



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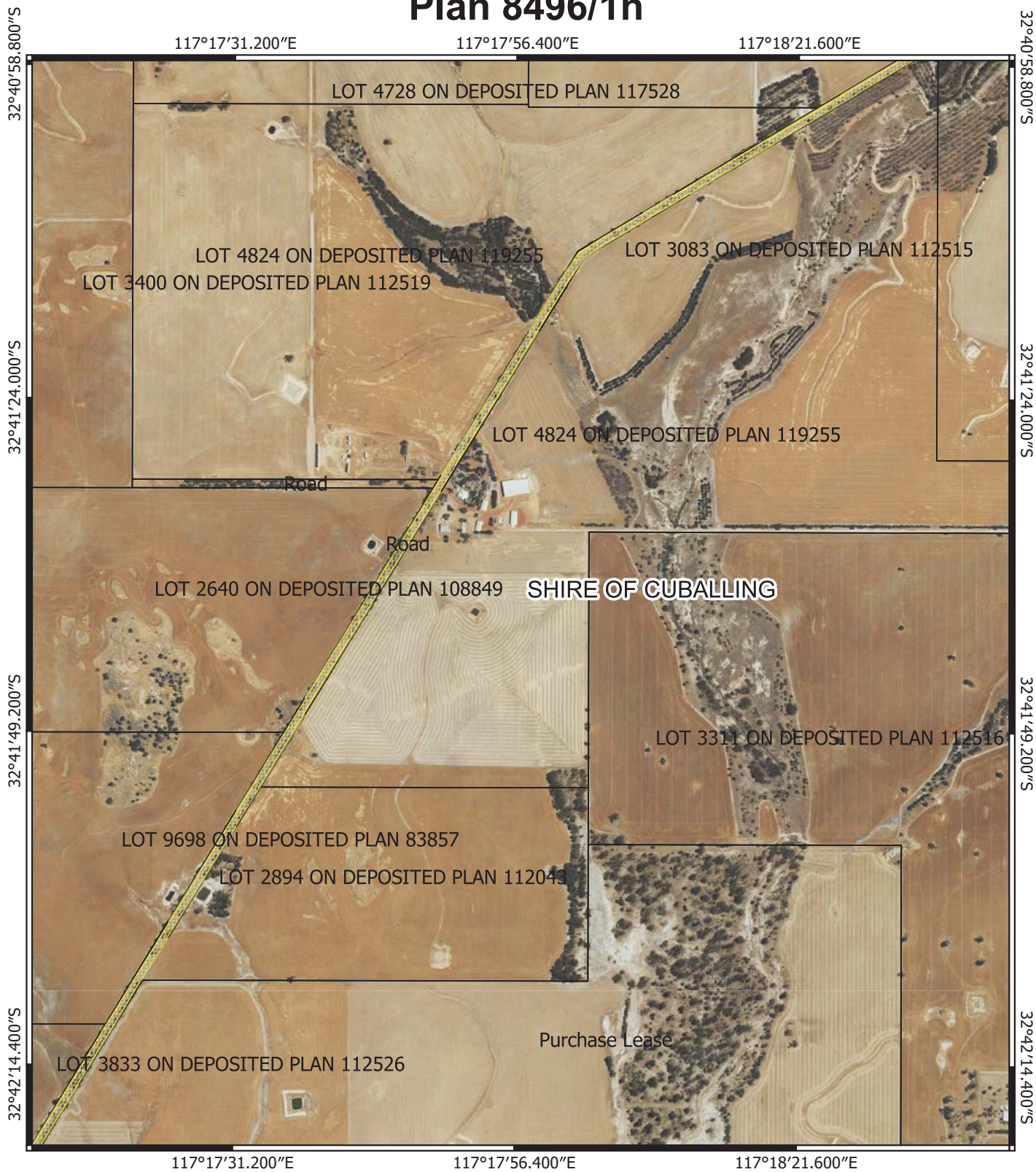
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Officer delegated under section 20 of the  
Environmental Protection Act 1986






GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8496/1h



## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



0 0.25 0.5 km



*ME*  
 Mathew Gannaway  
 2020.07.22  
 12:03:31 +08'00'

Officer delegated under section 20 of the Environmental Protection Act 1986



GOVERNMENT OF WESTERN AUSTRALIA

# Plan 8496/1i

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


117°18'46.800"E

117°19'12.000"E



## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



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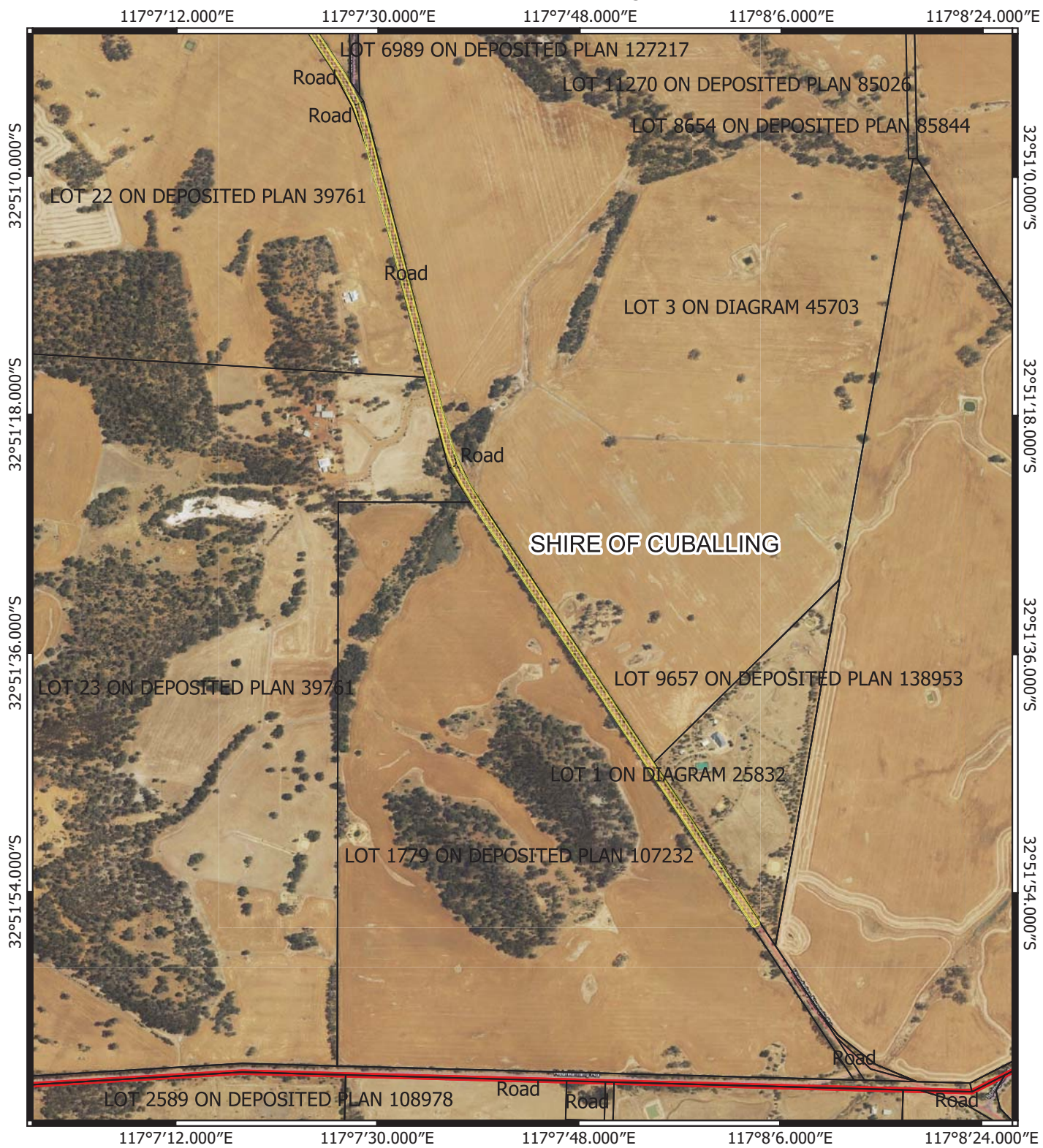

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Officer delegated under section 20 of the  
Environmental Protection Act 1986






GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8496/1j



## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



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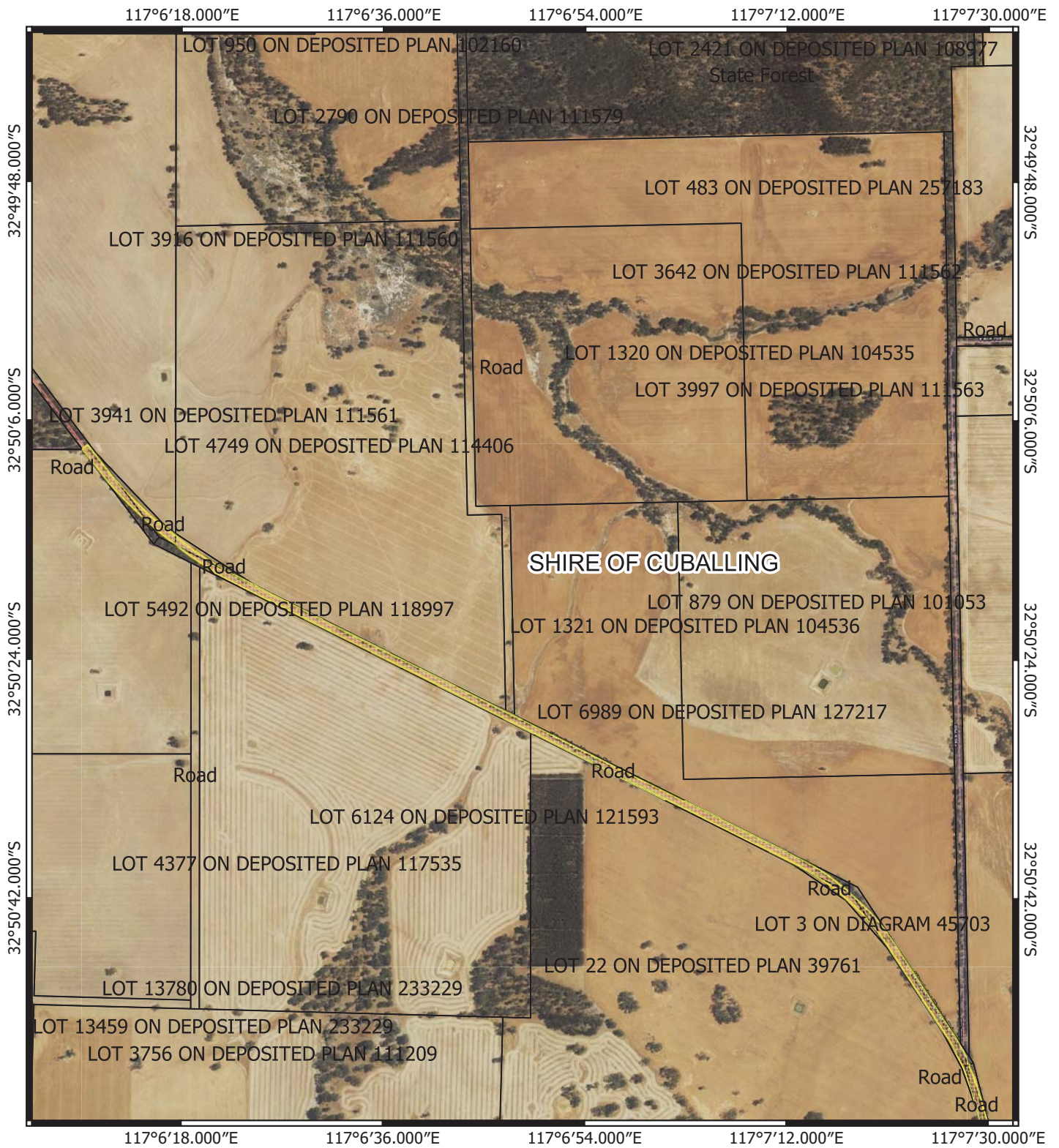
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Officer delegated under section 20 of the  
Environmental Protection Act 1986






GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8496/1k



## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



0    0.25    0.5 km



*Mathew Gannaway*

Mathew

Gannaway

2020.07.22

12:02:07

+08'00'

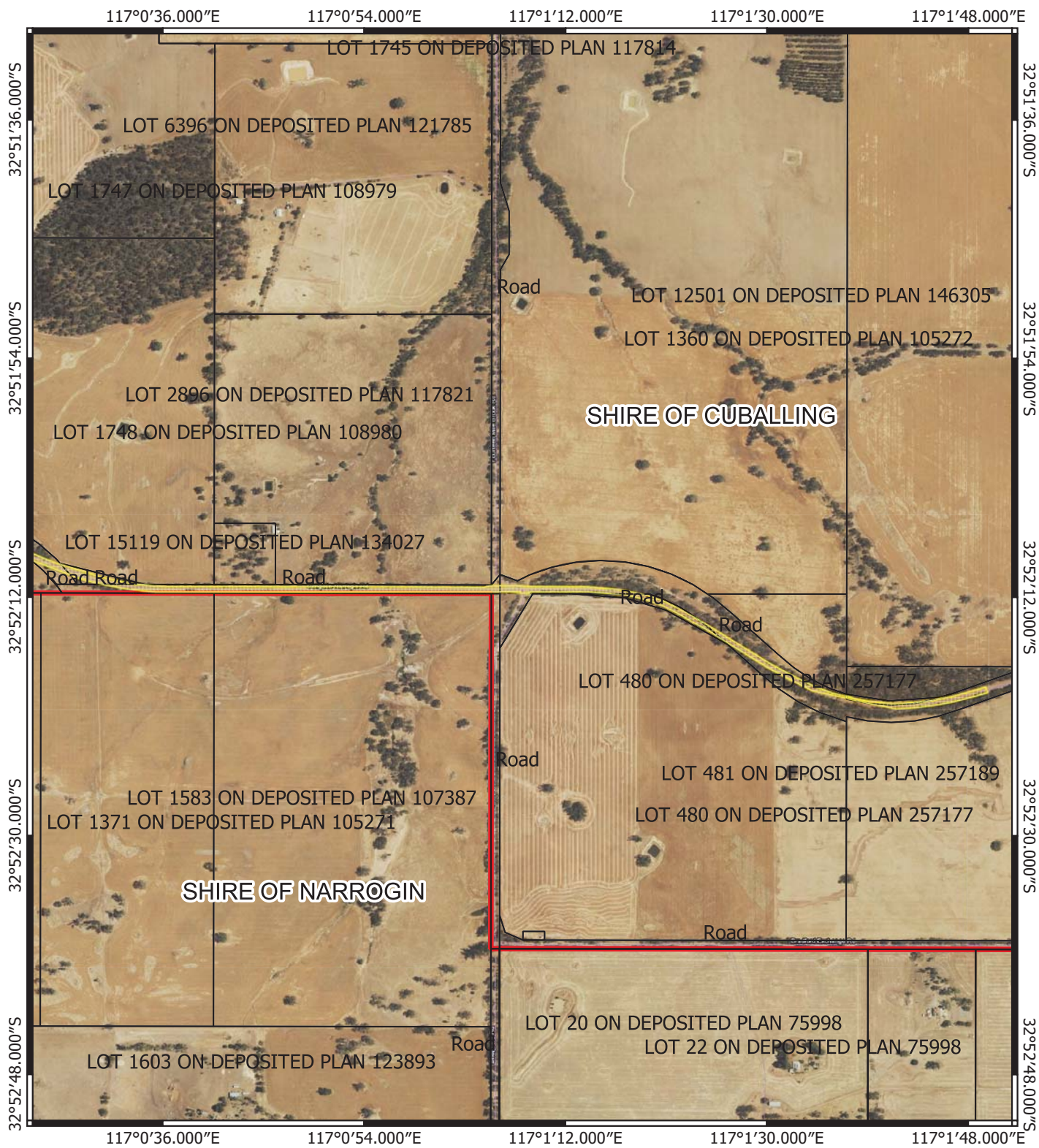
Officer delegated under section 20 of the  
 Environmental Protection Act 1986



GOVERNMENT OF  
 WESTERN AUSTRALIA




# Plan 8496/11



## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



0 0.25 0.5 km



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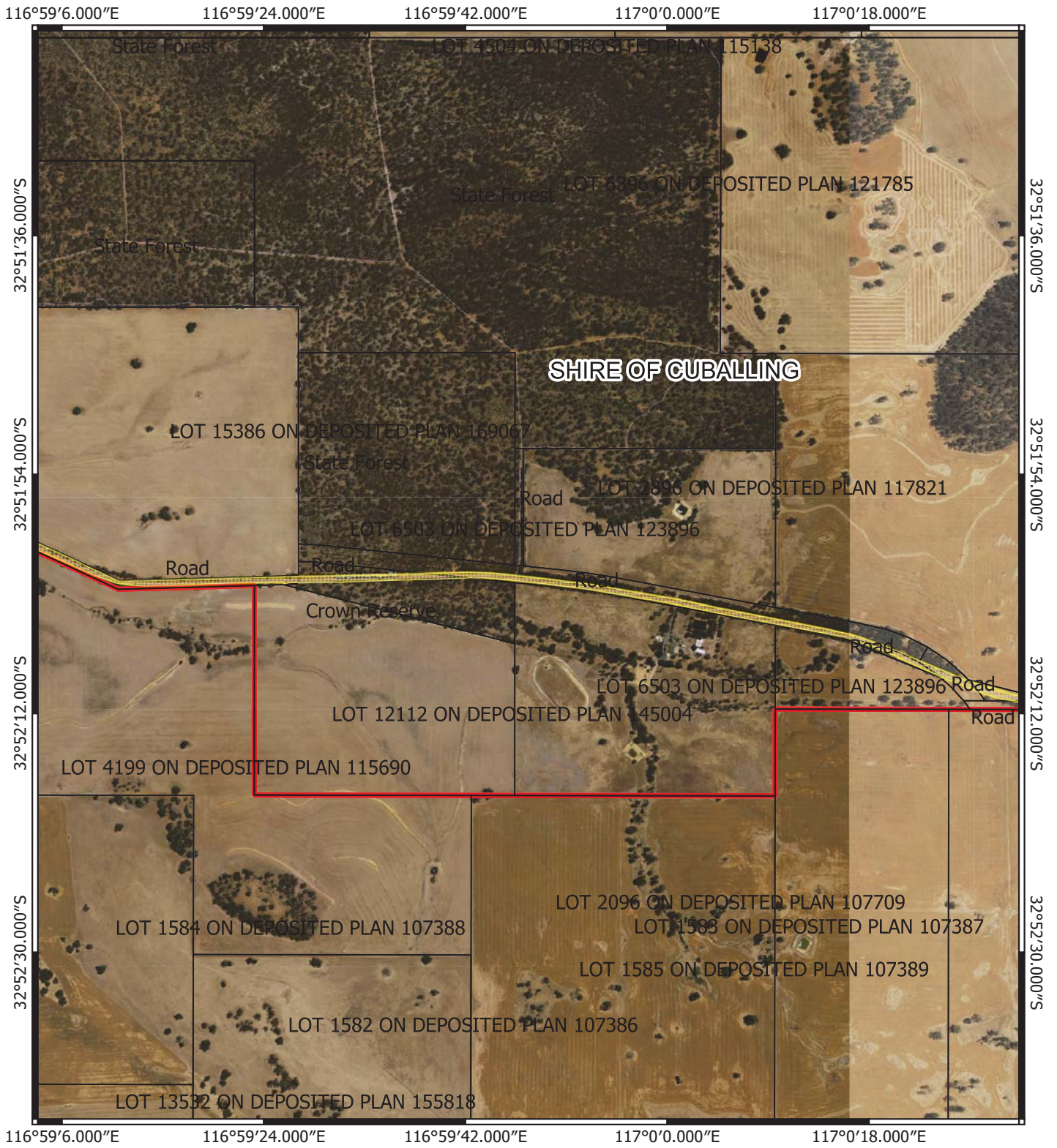
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Officer delegated under section 20 of the  
Environmental Protection Act 1986






GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8496/1m



## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



0 0.25 0.5 km



Mathew

Gannaway

2020.07.22

12:01:13

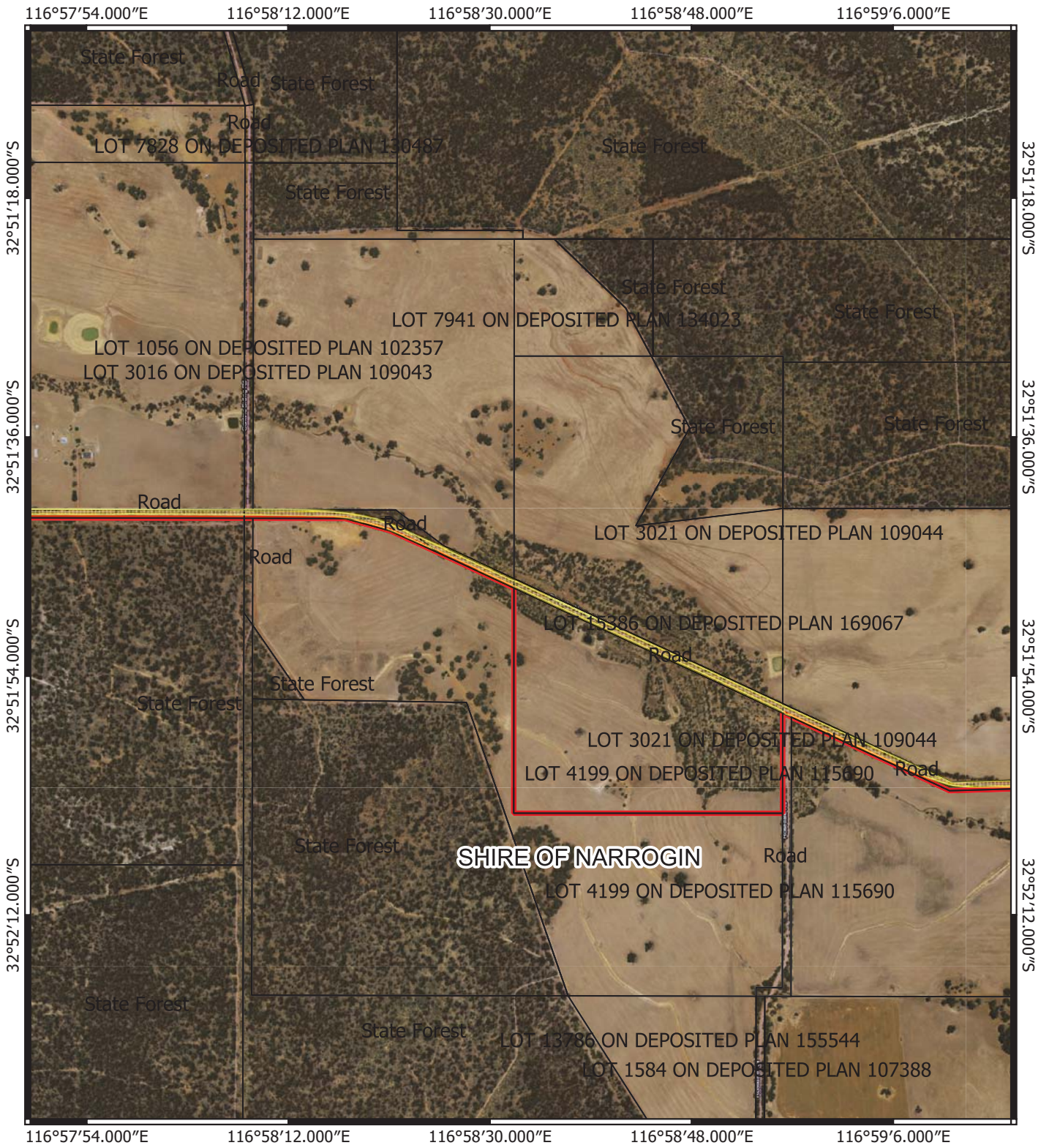
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Officer delegated under section 20 of the  
Environmental Protection Act 1986






GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8496/1n



## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



0 0.25 0.5 km



Mathew

Gannaway

2020.07.22

12:00:44

+08'00'

Officer delegated under section 20 of the  
Environmental Protection Act 1986






GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8496/1o



## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



0 0.25 0.5 km



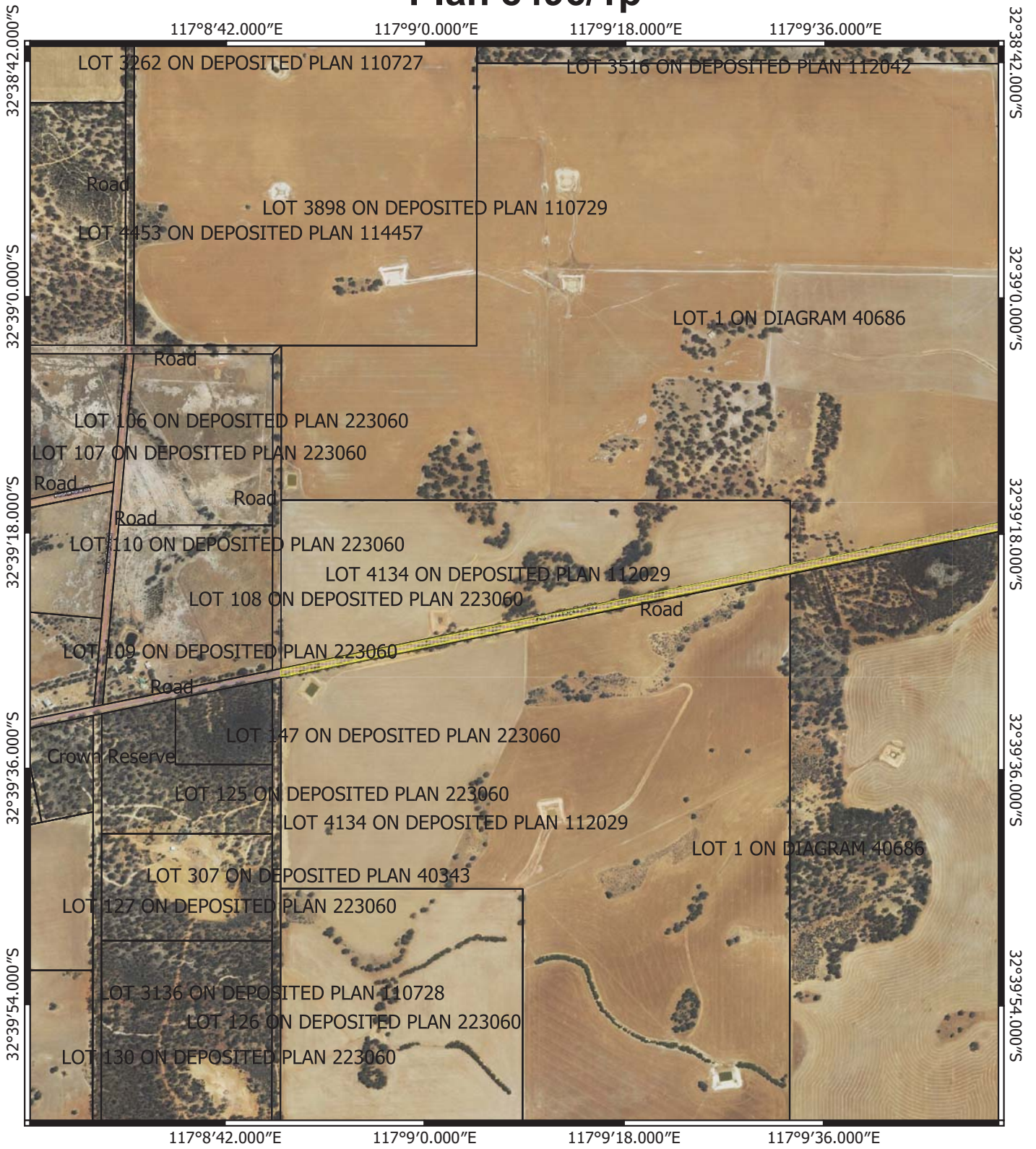
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Officer delegated under section 20 of the  
Environmental Protection Act 1986



GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8496/1p



## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



0 0.25 0.5 km



Mathew

Gannaway

2020.07.22

11:59:47

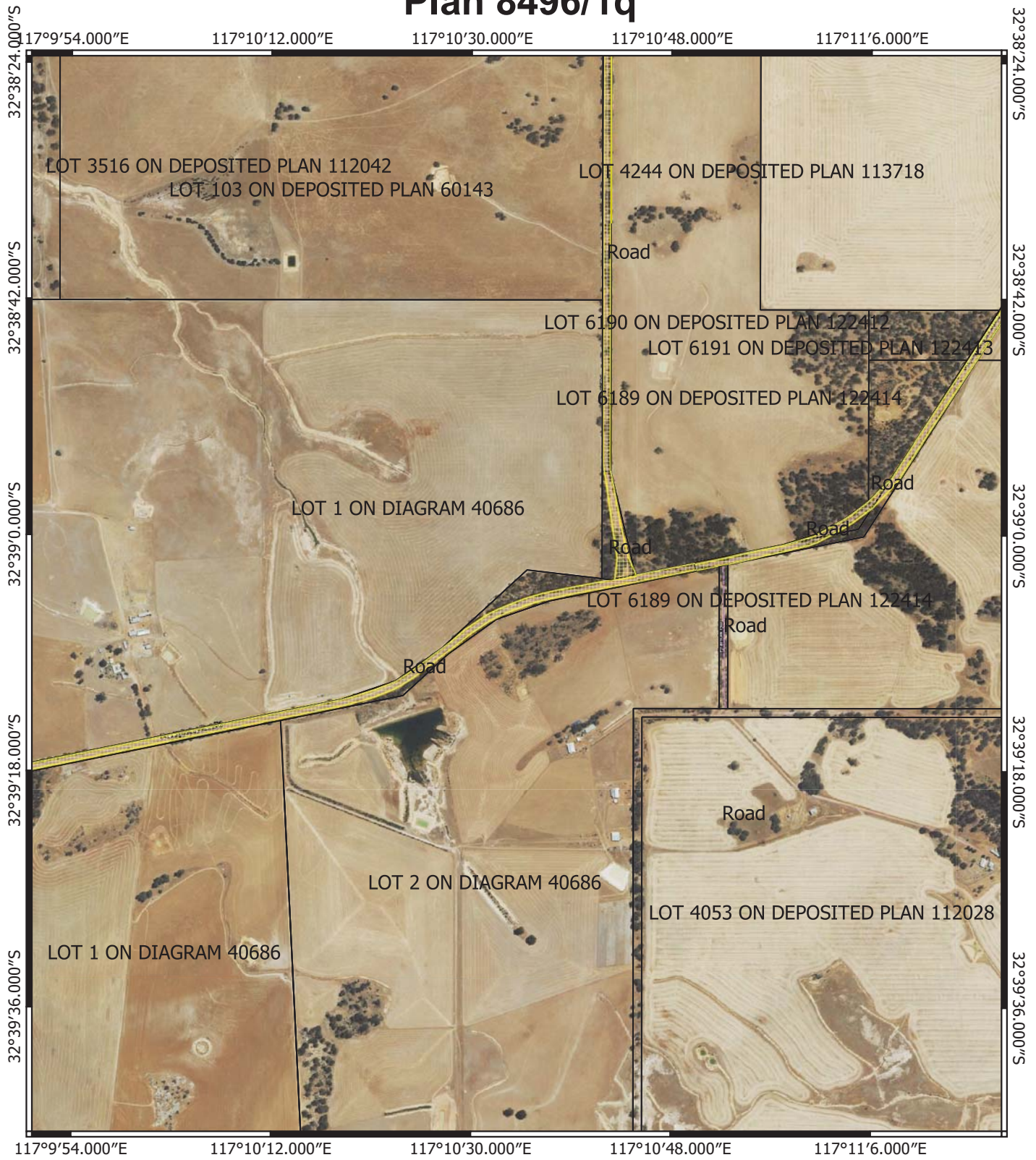
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Officer delegated under section 20 of the  
Environmental Protection Act 1986






GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8496/1q



## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



0 0.25 0.5 km



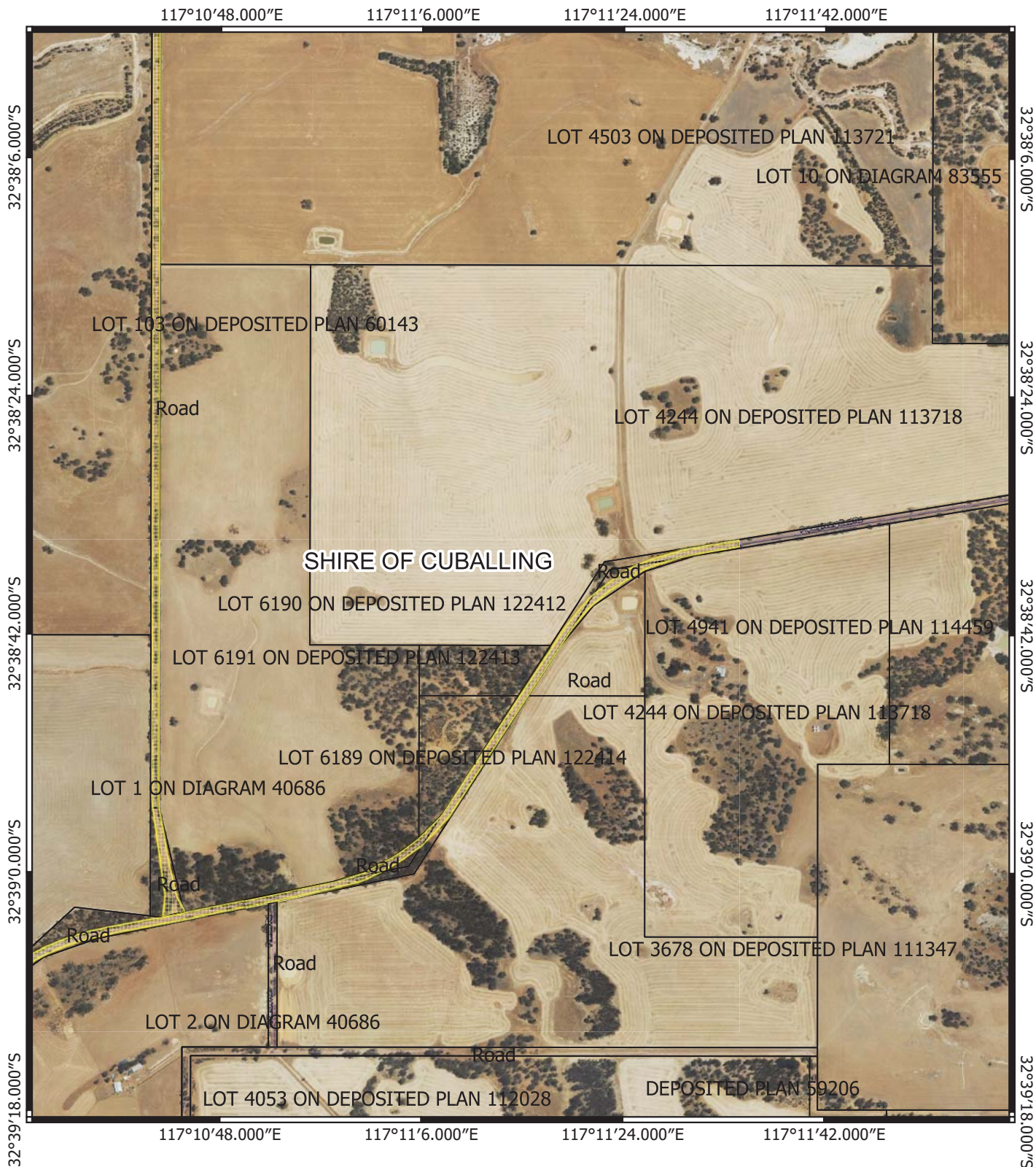
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Officer delegated under section 20 of the  
Environmental Protection Act 1986






GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8496/1r



## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



0 0.25 0.5 km



Mathew  
Gannaway  
2020.07.22  
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Officer delegated under section 20 of the  
Environmental Protection Act 1986






GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8496/1s



## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGate - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



0 0.25 0.5 km



Mathew

Gannaway

2020.07.22

11:55:40

+08'00'

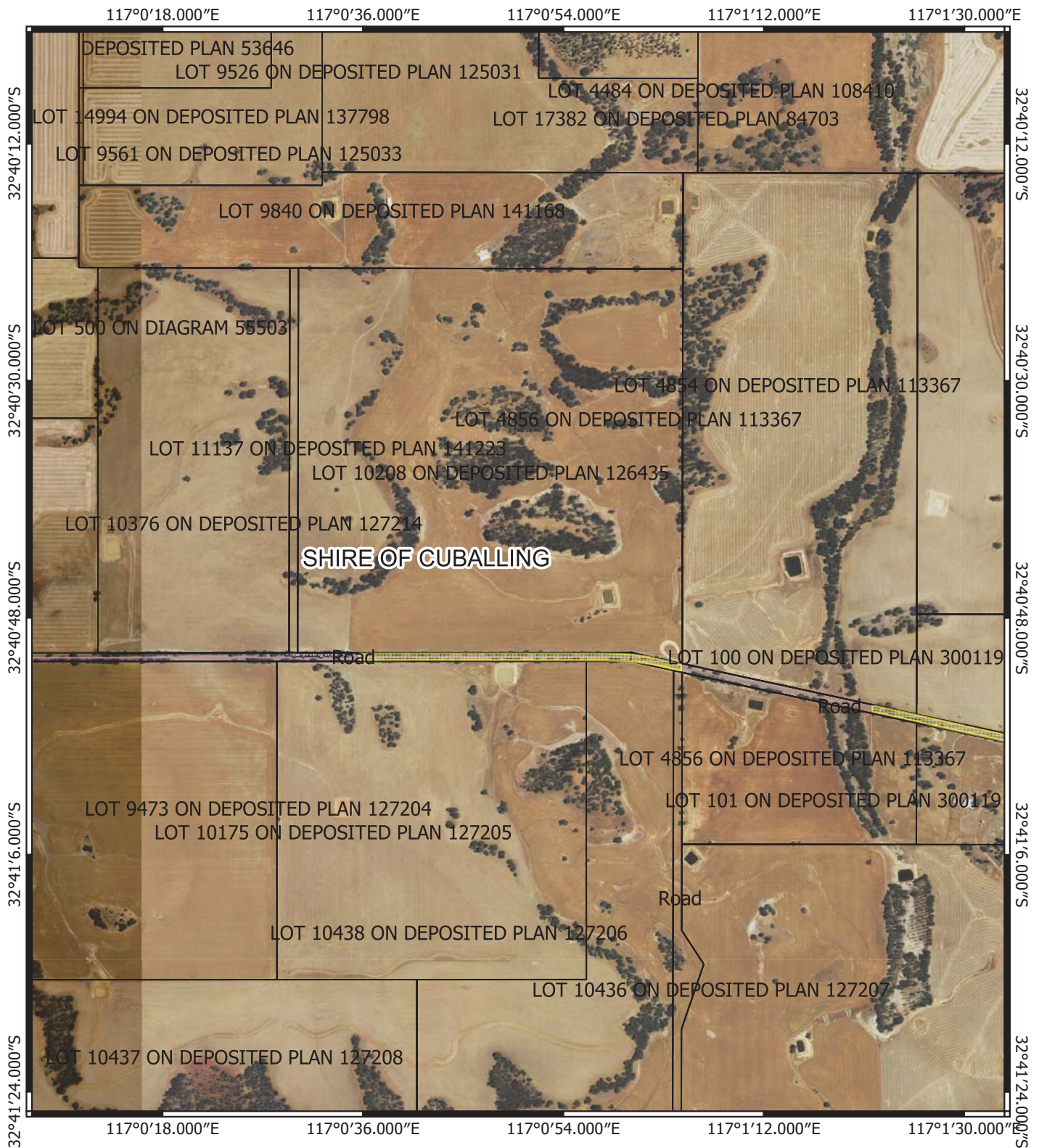
Officer delegated under section 20 of the  
Environmental Protection Act 1986



GOVERNMENT OF  
WESTERN AUSTRALIA



# Plan 8496/1t



## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



0    0.25    0.5 km



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Gannaway  
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Officer delegated under section 20 of the  
Environmental Protection Act 1986






GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8496/1u



## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



0 0.25 0.5 km



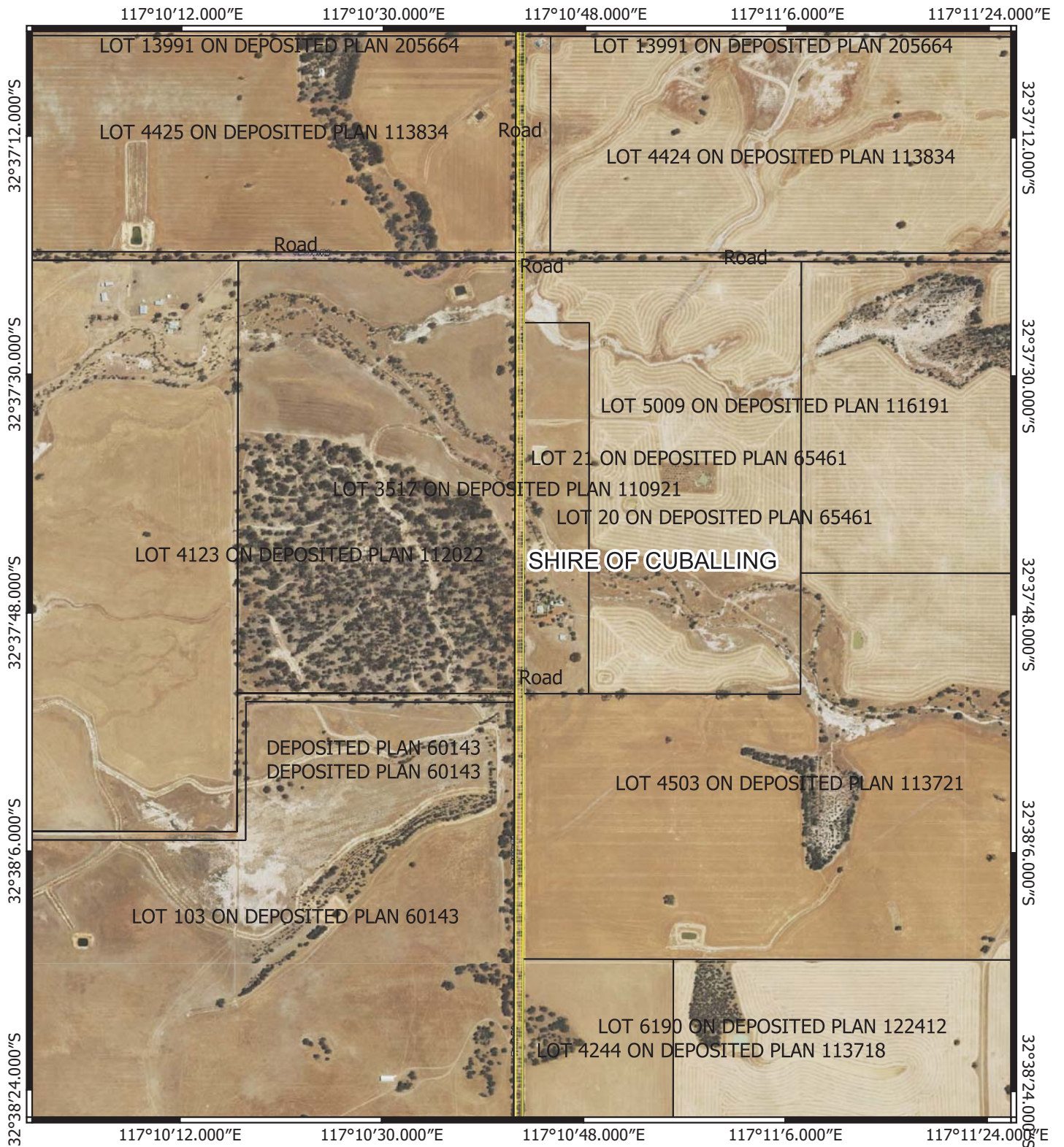
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Officer delegated under section 20 of the  
Environmental Protection Act 1986






GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8496/1v



## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



0    0.25    0.5 km



*Mathew Gannaway*

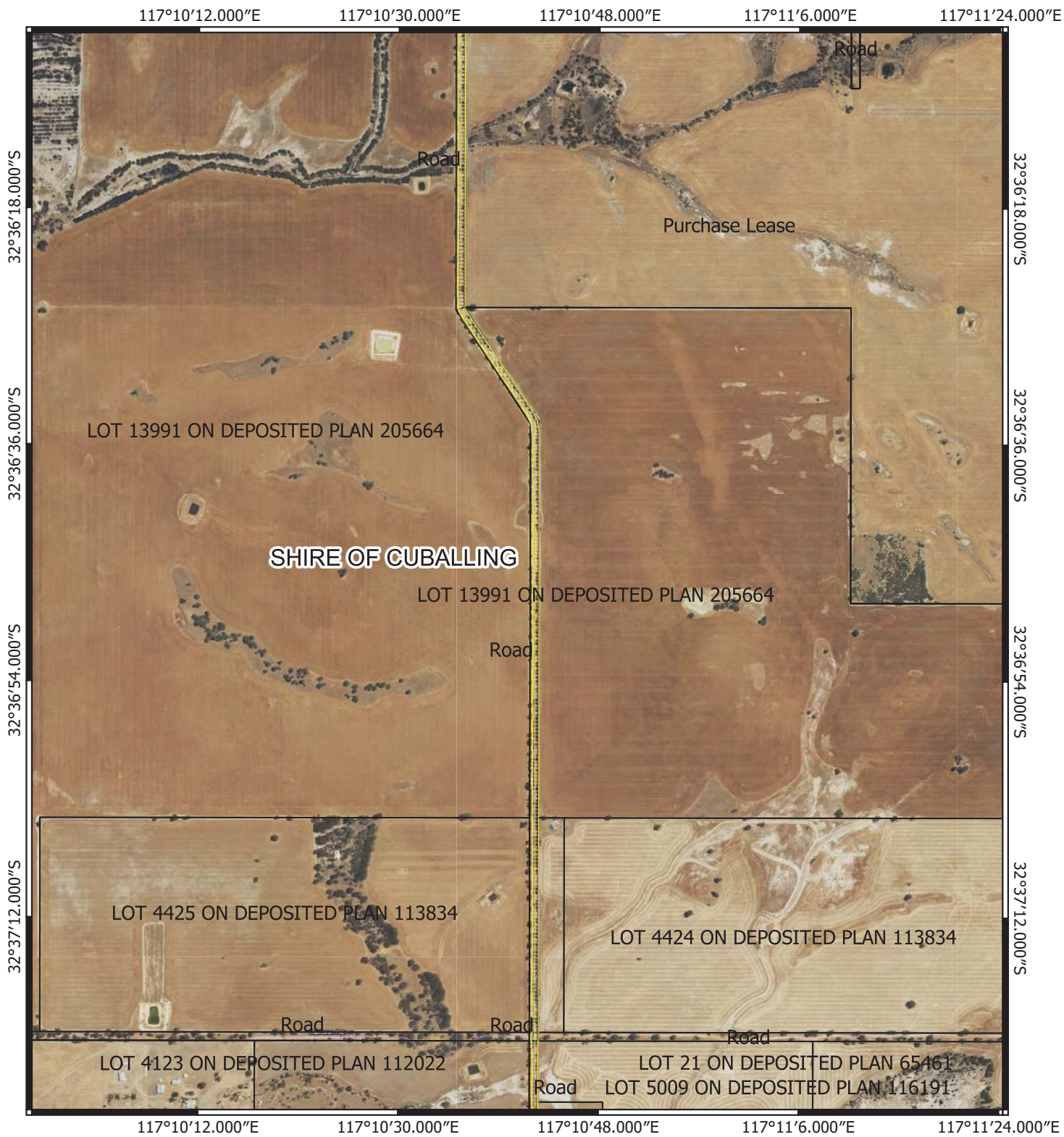
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Officer delegated under section 20 of the  
Environmental Protection Act 1986





GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8496/1w



## Legend

### Map Layers


-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



0 0.25 0.5 km



  
Mathew  
Gannaway  
2020.07.22  
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Officer delegated under section 20 of the  
Environmental Protection Act 1986



GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8496/1x

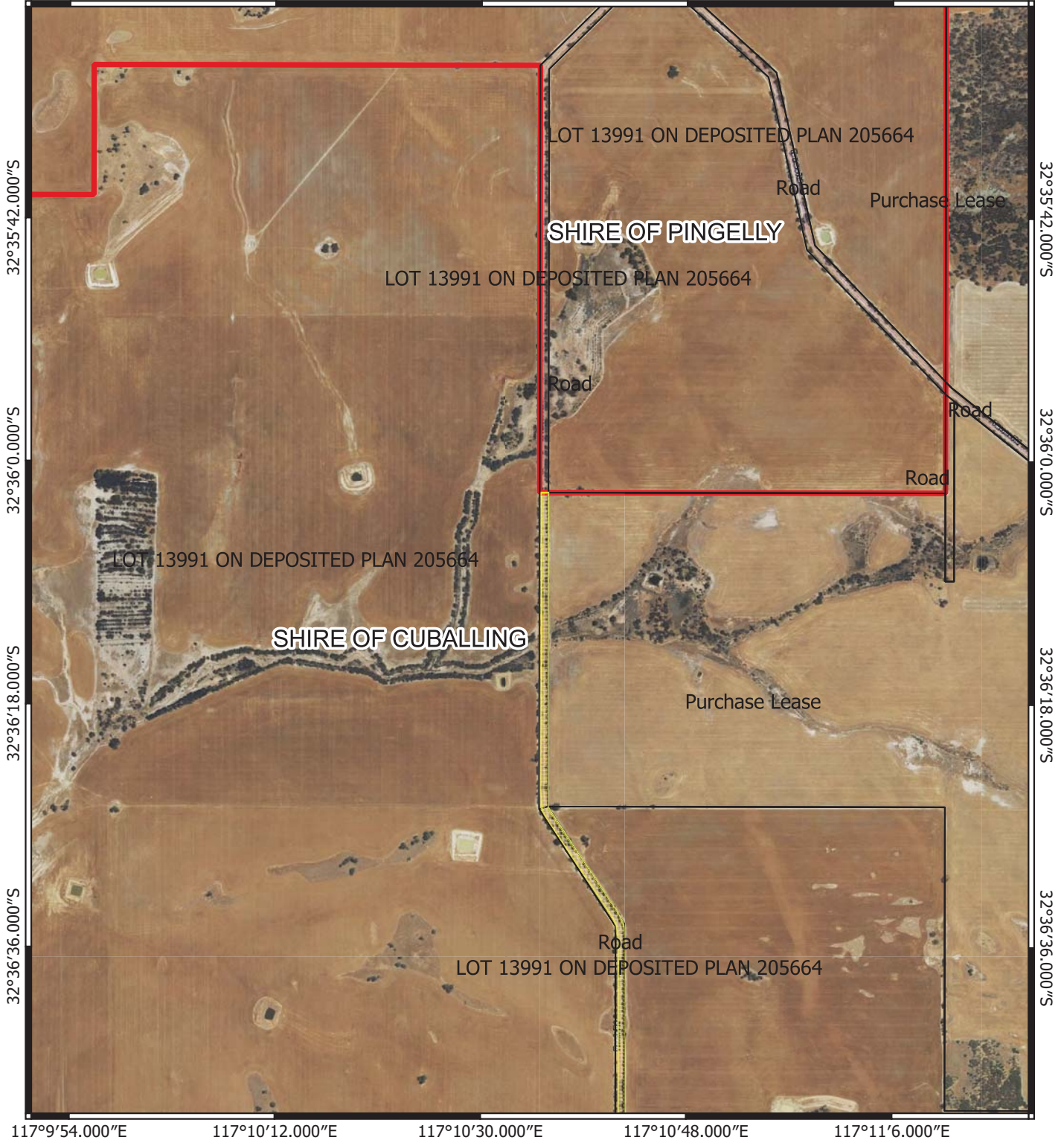
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117°10'12.000"E

117°10'30.000"E




117°10'48.000"E

117°11'6.000"E



## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



0 0.25 0.5 km



 Mathew Gannaway  
2020.07.22 11:53:19  
+08'00'

Officer delegated under section 20 of the  
Environmental Protection Act 1986



GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8496/1y

117°10'12.000"E

117°10'30.000"E

32°48'54.000"S

32°48'54.000"S

32°49'12.000"S

32°49'12.000"S





117°10'12.000"E

117°10'30.000"E

## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



0 25 50 m



*Mathew Gannaway*

Mathew  
Gannaway  
2020.07.22  
11:52:49  
+08'00'

Officer delegated under section 20 of the  
Environmental Protection Act 1986



GOVERNMENT OF  
WESTERN AUSTRALIA

# Plan 8496/1z




117°11'6.000"E

117°11'24.000"E



## Legend

### Map Layers

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Roads (Simplified) (LGATE-195)



0 25 50 m



*MS*

Mathew  
 Gannaway  
 2020.07.22  
 11:52:16  
 +08'00'

Officer delegated under section 20 of the  
 Environmental Protection Act 1986



GOVERNMENT OF  
 WESTERN AUSTRALIA



## 1. Application details

### 1.1. Permit application details

**Permit application No.:** 8496/1  
**Permit type:** Purpose Permit

### 1.2. Applicant details

**Applicant's name:** Shire of Cuballing  
**Application received date:** 16 May 2019

### 1.3. Property details

**Property:** Wandering Narrogin Road reserve, Cuballing (PINS 11527818, 11527819, 11527769, 11527768, 11527767, 11527822, 11527766, 11527823 and 11527820,) Congelin – Narrogin Road Reserve, Cuballing, Williams, Contine, Minigin (PINS 11320648, 11588156, 11320646, 11320647, 11333932, 11333931, 11333933, 11333934, 11518143, 1290790, 12102002, 11518141, 1290792, 12102003, 1290789, 12102001, 12102000)  
Stratherne Road reserve, Cuballing, Yornaning, Commodine, Stratherne Townsendale (PINS 11542346, 11523626, 11523624, 11488554, 11462055, 12160635 and 12160639).  
Popanyinning East Road reserve, Popanyinning and East Popanyinning (PIN 11530697, 11550050, 11530695, 11530696, , 11425222)  
Popanyinning West Road reserve, West Popanyinning (PINS 11524730, 11374624)  
Reeds Road reserve, East Popanyinning, East Pingelly, Popanyinning (PINS 11550049, 11550048, 11561790, 11561791, 1156792, 11561793)  
Hart Street road reserve, Cuballing (PINS 11430980, 11430979 and 11430959)  
Clifford Street road reserve, Cuballing (PINS 11431013 and 11431011)  
Bunmulling Road reserve, Popanyinning (PIN 11425219, , 11425221, 11425215)  
Hotham Street road reserve, Popanyinning (PIN 1319218)  
Dixons Road reserve (PIN 11488549), Townsendale  
Crown Reserve 30772, Popanyinning  
Lot 200 on Plan 69950, Popanyinning Crown Reserve 14084, Popanyinning  
Lot 150 on Plan 69950, Popanyinning Crown Reserve 14084, Popanyinning  
Lot 95 on Plan 233390, Popanyinning Crown Reserve 10328, Popanyinning  
Lot 96 on Plan 130078, Popanyinning Crown Reserve 10328, Popanyinning  
Lot 11793 on Plan 155060, Townsendale  
**Local Government Authority:** Shire of Cuballing  
**Localities:** Cuballing, Popanyinning, Williams, Contine, Minigin, Yornanning, Commodine, Stratherne, Townsendale, East Pingelly and East Popanyinning

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	Purpose category:
13.062 (revised from 22.78 hectares)		Mechanical Removal	Road construction or upgrades
3.786		Mechanical Removal	Gravel extraction

### 1.5. Decision on application

**Decision on Permit Application:** Grant  
**Decision Date:** 22 July 2020  
**Reasons for Decision:** The clearing permit application has been assessed against the clearing principles, planning instruments and other matters in accordance with section 51O of the *Environmental Protection Act 1986* (EP Act). It has been concluded that the proposed clearing is at variance with Principles (a), (b), (e) and (f), may be at variance with Principles (c) and (h) and is not likely to be at variance with the remaining Principles.

The applicant has implemented or committed to a number of minimisation measures, including a reduction in the application area, which are detailed below in Section 3.

Taking into account the avoidance and minimisation measures, the Delegated Officer considers that the following significant residual impacts remain:



- Loss of 12.85 hectares of foraging and potential nesting habitat for Carnaby's cockatoo and the Forest red-tailed black cockatoo;
- Loss of 16.848 hectares of native vegetation considered to be a significant remnant in an area that has been extensively cleared; and
- Loss of 2 hectares of the Commonwealth listed Threatened Ecological Community (TEC) ' Eucalypt Woodlands of the Western Australian Wheatbelt' (Wheatbelt Woodlands).

Consistent with the Western Australian Environmental Offset Policy (2011) and WA Environmental Offsets Guidelines (2014), and pursuant to section 51(2)(b) of the EP Act, in order to mitigate the significant residual impacts described above, the Permit Holder is required to provide an offset involving the following:

- Conservation of 10.78 hectares of Crown Reserve 8861 (contains Beard vegetation community 1023, Commonwealth listed Wheatbelt Woodlands TEC and foraging and potential nesting habitat for Carnaby's cockatoo and the Forest red-tailed black cockatoo); and
- Conservation of 30.9 hectares of Crown Reserve 19021 (contains Beard vegetation community 1023, Commonwealth listed Wheatbelt Woodlands TEC and foraging and potential nesting habitat for Carnaby's cockatoo and the Forest red-tailed black cockatoo).

It is considered that fauna and flora management conditions will adequately mitigate impacts to breeding habitat for black cockatoos and red-tailed phascogale and habitat for threatened and priority flora. It is considered that implementing appropriate hygiene management actions will adequately mitigate the risk of impacts to remaining adjacent portions of the Wheatbelt Woodlands TEC. Revegetation of the gravel extraction areas will mitigate against the permanent loss of vegetation within the local area.

Given the above and noting that upgrades to the road will provide a public benefit including improved road safety, the Delegated Officer decided to grant a clearing permit subject to avoid/minimise, offset, revegetation, fauna and flora management and dieback and weed management conditions.

In granting a clearing permit subject to the above requirements, the Delegated Officer determined that the proposed clearing is not likely to lead to an unacceptable risk to the environment.

## 2. Site Information

### Clearing Description

The application is for the proposed clearing of up to 16.848 hectares of native vegetation within the land parcels listed above (section 1.3) within the Shire of Cuballing for the purpose of road construction, road upgrades and gravel extraction. The nine road construction and upgrade projects and two gravel pits (Figures 3-7 below) are planned to occur over a 10 year period. These areas hereon will be referred to as the project areas.

**Table 1: Proposed clearing for each project area**

Project area	Area (ha) proposed to be cleared
Popanyinning gravel pit	1.428
Shaddicks road gravel pit	2.358
Bunmulling Bridge realignment	0.797
Stratherne Road	4.24
Wandering Narrogin Road	1.315
Congelin Narrogin Road	2.37
Popanyinning East Road	1.4
Popanyinning West Road	0.54
Reeds Road	1.722
Hart Street	0.212
Clifford Street	0.466
<b>Total</b>	<b>16.848</b>

### Comment

The local area considered in the assessment of this application is defined as a 10-kilometre radius measured from the perimeter of each project area.

The condition and description of the project areas was determined from a site visit conducted by Department of Water and Environment Regulation officers (DWER) on 4 April 2019 (DWER, 2019), and through surveys provided by the applicant and aerial photography.

The term 'application area' used throughout the assessment refers to the areas proposed to be cleared as a whole, while the term 'project area' refers to individual areas proposed to be cleared as listed in Table 1.

## Vegetation Description

The application area has been mapped as Beard vegetation association 1023: Medium woodland; York gum, wandoo and salmon gum (*Eucalyptus salmonophloia*) (Shepherd et al., 2001).

The majority of the vegetation along the road reserves consists of *Eucalyptus wandoo* and *Allocasuarina* spp. woodland in degraded (Keighery, 1994) condition. Small areas of good (Keighery, 1994) condition vegetation occur along Reeds Road, Popanyinning East Road, Popanyinning West Road, and Congelin-Narrogin Road project areas (DWER, 2019).

The Bunmulling Road Bridge upgrade project area consists of *Eucalyptus wandoo* and *Allocasuarina* spp. woodland in good to excellent (Keighery, 1994) condition (DWER, 2019).

The application includes two gravel pit areas that consists of Popanyinning Gravel Pit and Shaddicks Street Gravel Pit. The vegetation within the gravel pit areas is described below.

### Popanyinning Gravel Pit

Two vegetation types have been described within this area:

- Rock sheoak woodland: *Allocasuarina huegeliana* woodland over *Leptospermum erubescens*, *Adenanthos cygnorum*, *Melaleuca tuberculata*, *Xanthorrhoea drummondii* shrubland over *Stylidium repens* very open herbland, *Neurachne alopecuroidea* scattered grasses and *Lepidosperma costale*, *L. resinum* open sedgeland on gravelly yellow-brown sandy loam. (Ecoedge, 2020b); and
- Wheatbelt Wandoo woodland: *Eucalyptus capillosa* woodland over *Acacia chrysocephala*, *Banksia armata*, *Beaufortia incana*, *Daviesia longifolia*, *Lechenaultia biloba*, *Xanthorrhoea drummondii* open shrubland over *Dianella revoluta*, *Patersonia juncea*, *Podolepis lessonii*, *Tripterococcus brunonis* very open herbland and *Lepidosperma costale*, *L. resinum* open sedgeland on rocky yellow-brown sandy loam on a breakaway (Ecoedge, 2020b).

### Shaddicks Street Gravel Pit

Two vegetation types have been described within this area:

- Wheatbelt Wandoo woodland: *Eucalyptus capillosa* subsp. *capillosa* woodland over *Adenanthos cygnorum* subsp. *cygnorum*, *Banksia armata*, *B. sphaerocarpa* var. *caesia*, *Calothamnus quadrifidus* subsp. *quadrifidus*, *Daviesia incrassata* subsp. *incrassata*, *Hakea prostrata*, *Leptospermum erubescens*, *Melaleuca tuberculata*, *Xanthorrhoea drummondii* shrubland over *Conostylis setigera*, *Glischrocaryon aureum*, *Lagenophora huegelii*, *Pterochaeta paniculata* very open herbland and *Lepidosperma costale*, *L. resinum* very open sedgeland on yellow-brown gravelly sandy-loam (Ecoedge, 2020c); and
- Rock Sheoak woodland: *Allocasuarina huegeliana* woodland over *Astroloma epacridis*, *Banksia nobilis*, *Gastrolobium calycinum*, *Grevillea leptobotrys*, *Leptospermum erubescens*, *Melaleuca tuberculata* shrubland over *Dampiera lavandulacea*, *Hemigenia sericea*, *Lechenaultia biloba*, *Leucopogon* sp. Wandering (F. Hort 419), *Thryptomene australis* subsp. *australis* low shrubland over *Conostylis setigera*, *Glischrocaryon aureum*, *Lagenophora huegelii*, *Pterochaeta paniculata* very open herbland and *Lepidosperma costale*, *L. resinum* very open sedgeland on yellow-brown gravelly sandy-loam (Ecoedge, 2020c)..

## Vegetation Condition

The application area ranges from Excellent to Degraded condition (DWER, 2019). Vegetation condition ratings are defined as follows:

- Excellent: Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species (Keighery, 1994).
- Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).
- Good: Vegetation structure significantly altered by very obvious signs of multiple disturbance; retains basic structure or ability to regenerate (Keighery 1994).
- Degraded: Basic vegetation structure severely impacted by disturbance; scope for regeneration but not to a state approaching Good condition without intensive management (Keighery 1994).



Figure 1: Shaddicks Street (left) and Popanyinning (right) gravel pits project areas hatched in blue

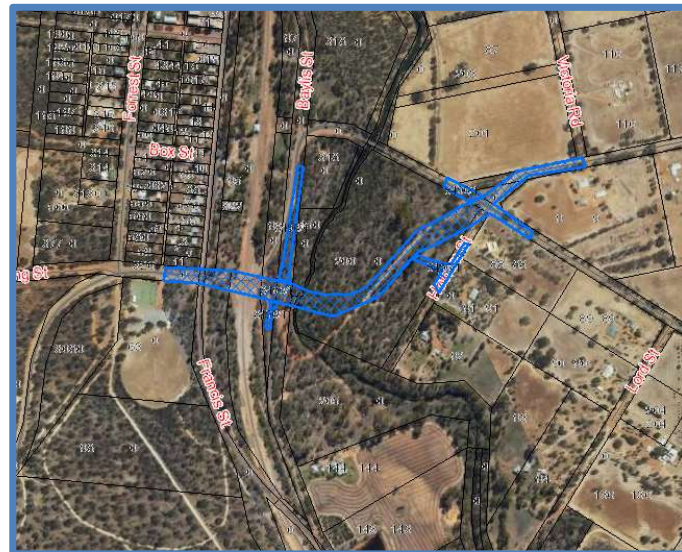


Figure 2: Bunmulling bridge realignment project area

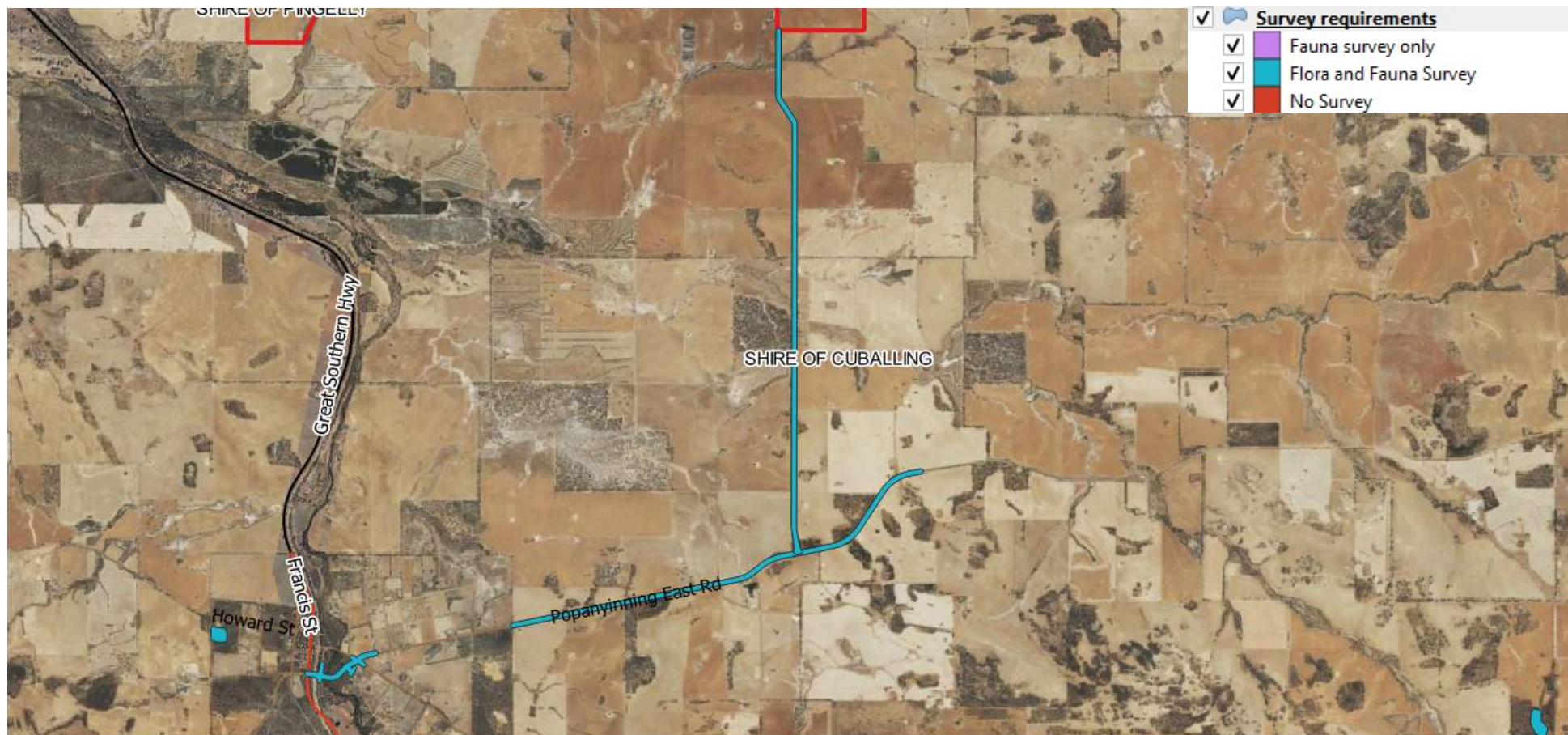


Figure 3: Showing Survey requirements within the project areas (Bunmulling bridge, Reeds Road, Popanyinning East Road and Shaddicks Street gravel pit and and Popanyinning gravel pit).

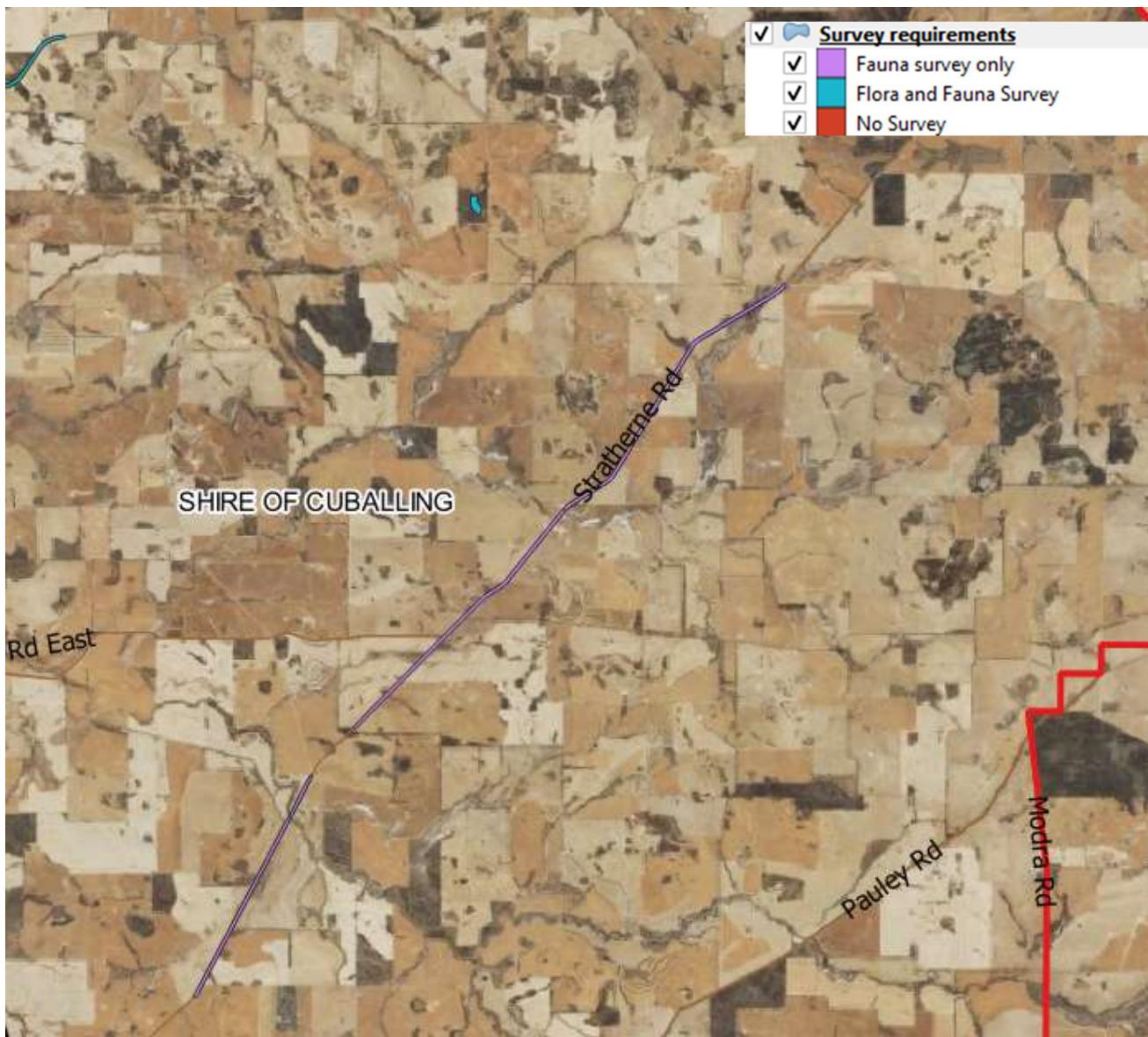


Figure 4: Showing Survey requirements within the project areas in Stratherne Road and Popanyinning gravel pit. Note: Red line on Modra Road is boundary of the Shire.

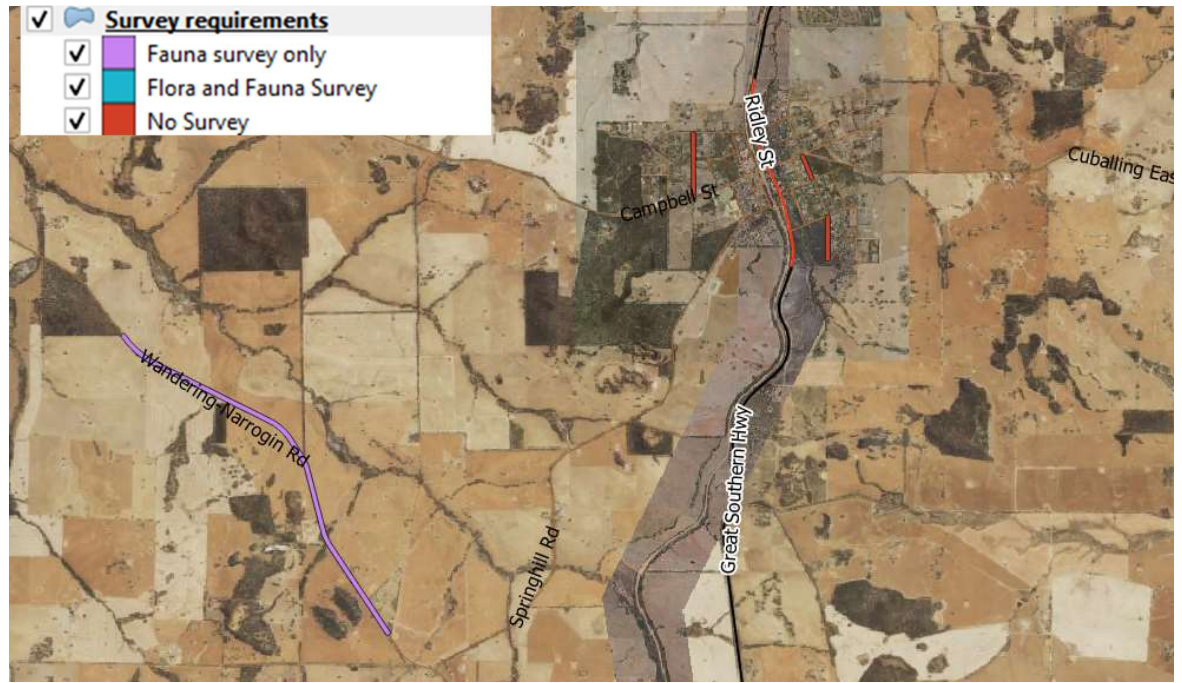


Figure 5: Showing Survey requirements within the project areas in Wandering-Narrogin Road, Clifford Street and Hart Street



Figure 6: Showing Survey requirements within the project areas in Congelin Narrogin Road



Figure 7: Showing Survey requirements within the project areas in Popanyinning West Road



### 3. Minimisation and mitigation measures

The applicant provided the following avoidance and mitigation measures as supporting information with the application (Shire of Cuballing, 2019) and through a response provided to a request for further information from DWER (Shire of Cuballing, 2020);

- Gravel pit areas of Shaddicks and Popanyinning – clearing has been reduced to avoid impact to the Wheatbelt Woodlands TEC.
- Bunmulling Road bridge – Four options were considered by the Shire. The option chosen provided a reduced footprint due to alignment with an existing track and amended intersections with side roads while still being consistent with road safety criteria. The Shire has noted old tracks will be revegetated (0.4 hectares).
- Stratherne Road – Road widening has been reduced to 16 metres. The applicant has noted the potential of limiting clearing to one side only where the detailed design permits. The consideration of clearing on one side only includes: between Straight Line Kilometre (SLK) 10.38 and SLK 11.05 (left side only), between SLK 11.884 and SLK 12.278 (right side only), between SLK 12.503 and SLK 13.748 (Left side only), between SLK 13.859 and SLK 14.121 (right side only), between SLK 16.131 and LSK 17.234 (left side only). The applicant intends on planting understory species within the remaining road reserve to totalling 0.43 hectares which is considered to be an additional mitigation measure.
- Wandering Narrogin Road – Originally the road widening limit was to be 18 metres to be consistent with other sections of the road. Additional mitigation measures have reduced the width to 16 meters.
- Congelin Narrogin Road – The alignment of the roadworks is to include only the northern side between SLK 5.863 and SLK 9.643 and between SLK 7.71 and SLK 7.401. The alignment will be aligned to the south between SLK 8.866 and SLK 5.765 and SLK 5.508 and SLK 4.132. The proposed alignment will facilitate retention of a four-meter-wide strip of vegetation within the road reserve.
- Popanyinning East Road - Widening limited to 16 meters footprint to maximise vegetation retention. In addition to this, the applicant has kept the alignment of the proposed clearing to within only the northern side of road between SLK 1.742 and SLK 4.172. In addition to this, the applicant has committed to planting understory species within the remaining road reserve, covering an area of approximately 1.14 hectares which is considered to be an additional mitigation measure.
- Popanyinning West Road – Widening has been reduced to 16 meters footprint to maximise vegetation retention. The applicant noted further avoidance is limited due to designs of adjoining road sections.
- Reeds Road - Avoided clearing between SLK 5.249 and SLK 4.876, approximately 0.08 hectares; road footprint has been limited to 15 metres wide. Clearing to be undertaken on the east side of road reserve only between SLK 0.263 and SLK 5.611. The intersection with Popanyinning East Road will be cleared to the extent only to meet road safety requirements.
- Hart Street - Section between Campbell Street and Brundel Street proposed along the east side of the road reserve to avoid tree removal along the west side of the road reserve, and section between Brundel Street and Beeston Street aligned along the west side of the road reserve to minimise tree removal.
- Clifford Street – The road width has been limited to 14 metres wide, the section north of Colin Street intersection has the eastern side of the road being set 3-4 metres off the road reserve boundary.

### 4. Assessment of application against clearing principles

#### (a) Native vegetation should not be cleared if it comprises a high level of biodiversity.

##### **Proposed clearing is at variance with this Principle**

Biodiversity is defined as the variability among living organisms and the ecosystems of which those organisms are a part and includes the following:

- diversity within native species and between native species;
- diversity of ecosystems; and
- diversity of other biodiversity components (which includes native species, habitats, ecological communities, genes, ecosystems, and ecological processes).

According to available datasets, nine Priority 1 (P1) and P2 species and eight threatened flora species have been recorded in the local area (WA Herbarium, 2019). The majority of the application areas contain wandoo woodland with scattered *Allocasuarina* spp. in a degraded condition (Keighery, 1994) (DWER, 2019) with the understorey being devoid of native vegetation and consisting of grassy weeds. It is considered unlikely that the areas in degraded condition to provide suitable habitat for threatened and priority flora.

Areas of vegetation within the project areas that are in good (Keighery, 1994) condition or better may contain suitable habitat for threatened and priority flora. The following project areas contain vegetation in good (Keighery, 1994) condition or better and may contain suitable habitat for threatened and priority flora species:

- Reeds Road;
- Popanyinning East Road;
- Popanyinning West Road;
- Congelin-Narrogin Road;
- Popanyinning Gravel Pit;
- Shaddicks Street Gravel Pit; and
- Bunmulling Road Bridge.

The applicant provided targeted flora and vegetation surveys for some of the project areas:

- Stratherne Road 'Reconnaissance and Targeted Flora and Vegetation Survey Stratherne Road 4.04-5.04 SLK Cuballing' (Ecoedge, 2020)\_

- Wandering-Narrogin Road 'Reconnaissance and Targeted Flora and Vegetation Survey Wandering-Narrogin Road 27.12-29.56SLK Cuballing' (Ecoedge, 2020a)
- Ecoedge (2020b) 'Reconnaissance and Targeted Flora and Vegetation Survey Boundary Road Gravel Pit Popanyinning'.
- Ecoedge (2020c) 'Reconnaissance and Targeted Flora and Vegetation Survey Shaddicks Road Cuballing'.

The surveys listed above noted that no threatened flora species were recorded during the surveys. A Priority 1 flora species, *Hemigenia* sp. Newdegate (E. Bishop 75) was recorded at the Shaddicks Road gravel pit area. The recording was of one individual only which was reported to DBCA. The species is known from seven records within Western Australia (WA Herbarium, 2019), with records confined an area of less than 200 kilometres wide and 200 kilometres long. The recording at the Shaddicks Road gravel pit area represents a range extension for the species as it is located approximately 70 kilometres to the west of the extent of the species. To avoid impacts to the P1 species, the applicant is required to avoid the individual and provide a 10-meter buffer to ensure the individual is not impacted.

No other conservation significant flora species were recorded during the surveys. It is considered the surveys listed above were adequate as the timing of the surveys in October was within the optimum period for the majority of the conservation significant flora identified within the desktop assessment as being possible to occur. In addition, the survey effort is considered appropriate due to the size of the areas surveyed and the condition of the vegetation varying between the survey areas. Only minor limitation was listed within the surveys noting that the survey areas had received only 70–80 per cent of the annual average rainfall. The Delegated Officer considered this did not impact the findings of the surveys.

A flora management condition on the permit will mitigate impacts to threatened, P1 and P2 listed flora, through the requirement to survey prior to clearing (as mapped in Figures 3- 7 above). If threatened or P1 and P2 flora are found, clearing of these species and their buffers will not be permitted.

An additional 21 P3 and P4 flora species have been recorded within the local area and may occur within the application areas that contain vegetation in good or better condition. A flora management condition on the permit will mitigate significant impact to P3 and P4 listed flora through the requirement to survey prior to clearing. If found, clearing of no more than 50 per cent of the identified population within the application area will be permitted. A detailed assessment of the P3 and P4 flora species known to occur within the local area has determined that there are a large number of records within the local area, the proposed clearing is within their known range of occurrence, and there are substantial populations within the local area that occur within conservation estate. It is not considered for the application area to significantly impact the conservation status of these species at a local or regional level. The condition on the permit ensures that any new populations identified within the application area will remain (Figures 3- 7 'CPS 8496/1 Survey Requirements').

According to available databases, 16.848 hectares of the Wheatbelt Woodlands TEC intersects the project areas. The total number of occurrences of the TEC as mapped by the Commonwealth Department of Agriculture, Water and the Environment is 87,224, with a total area of approximately 633,914 hectares.

This TEC is listed as critically endangered under the commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This is also listed as a P3 Priority Ecological Community (PEC) by DBCA. The TEC is dominated by a complex mosaic of eucalypt species with a tree or mallet form over an understorey that is highly variable in structure and composition. It occupies a transitional zone between the wetter forests associated with the Darling Range and the southwest coast, and the low woodlands, mallee and shrublands of the semi-arid to arid interior. The TEC is generally associated with the flatter, undulating relief, including drainage lines and saline areas. It does not typically occur on granite outcrops or hills of lateritic gravel but may extend to the base of outcrops, where they are replaced by non-eucalypt woodlands or shrublands (TSSC, 2015).

The Wheatbelt is one of the most intensively cleared regions of Australia and those woodland patches that remain are typically small, highly fragmented and have been disturbed to some extent. The condition thresholds for the TEC outlined in the *Approved Conservation Advice (including listing advice) for the Eucalypt Woodlands of the Western Australian Wheatbelt* for this TEC states that roadside patches must be five metres or more in width to qualify as the TEC (TSSC, 2015).

A site visit of the majority of the roadside application areas confirmed that the majority of the patches of vegetation were less than five metres in width and therefore do not qualify as this TEC. The site visit indicated that small portions of the areas under application may consist of this TEC within some of the project areas, including Bunmulling bridge realignment, Congelin Narrogin Road, Popanyinning East Road and Reeds Road. Surveys provided by the applicant noted that 0.09 hectares of the TEC is present within the Stratherne Road project area, 0.30 hectares within the Wandering-Narrogin Survey area (Ecoedge 2020 and 2020a), 0.284 hectares within the survey at Popanyinning gravel pit and 0.76 hectares within the survey at Shaddicks Road gravel pit. The proposed clearing of up to two hectares of this TEC within an area that is extensively cleared (local area retains on 20 percent native vegetation) is considered significant.

Based on available databases, 18 terrestrial fauna species listed as threatened under the *Biodiversity Conservation Act 2016* (BC Act) or as listed as priority fauna by DBCA have been recorded within the local area. As discussed under principle (b), the application area contains suitable foraging and potential nesting habitat for black cockatoos. To mitigate impacts to black cockatoo breeding habitat, the applicant will be required to undertake a survey prior to clearing (Figures 3-7 'CPS 8496/1 Survey Requirements'). If breeding habitat that is being utilised is found, clearing will not be permitted.

It is considered the application areas consist of vegetation that represents a highly cleared Beard vegetation association 1023 community that has approximately 10.8 per cent of its pre-European extent remaining within the Avon Wheatbelt IBRA Bioregion.

Given the above, the proposed clearing is at variance with this principle. It is considered that the proposed impacts to significant foraging habitat for Carnaby's cockatoo, the loss of 2 hectares of the Wheatbelt Woodlands TEC and vegetation that represents

a highly cleared Beard vegetation association are of a scale that can be offset through the offset proposed by the applicant. Further details on the offset are provided in Section 5.

**(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.**

**Proposed clearing is at variance with this Principle**

As discussed in Principle (a), 18 terrestrial conservation significant fauna species have been recorded within the local area, these being;

- Carnaby's cockatoo (*Calyptorhynchus latirostris*), listed as Endangered under the EPBC Act and the BC Act;
- Forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*), listed as Vulnerable under the EPBC Act and the BC Act;
- Baudin's cockatoo (*Calyptorhynchus baudinii*), listed as Endangered under the EPBC Act and the BC Act;
- Malleefowl (*Leipoa ocellata*), listed as Vulnerable under the EPBC Act and the BC Act;
- Numbat (*Myrmecobius fasciatus*), listed as Endangered under the EPBC Act and the BC Act;
- Quenda (*Isodon obesulus* subsp. *fusciventer*), listed as Priority 4 by DBCA;
- Bilby (*Macrotis lagotis*), listed as Vulnerable under the EPBC Act and the BC Act;
- Red-tailed phascogale (*Phascogale calura*), listed as Vulnerable under the EPBC Act and as Conservation Dependent under the BC Act;
- Tammar wallaby (*Macropus eugenii* subsp. *derbianus*), listed as Priority 4 by DBCA
- Woylie (*Bettongia penicillata* subsp. *ogilbyi*), listed as Critically Endangered under the BC Act and Endangered under the EPBC Act;
- Western quoll/chuditch (*Dasyurus geoffroii*), listed as Vulnerable under the EPBC Act and the BC Act;
- Western false pipistrelle (*Falsistrellus mackenziei*), listed as Priority 4 by DBCA;
- Western brush wallaby (*Macropus irma*), listed as Priority 4 by DBCA;
- Western rosella (*Platycercus icterotis* subsp. *xanthogenys*), listed as Priority 4 by DBCA;
- Southern death adder (*Acanthopis antarcticus*), listed as Priority 3 by DBCA;
- Masked owl (*Tyto novaehollandiae* subsp. *novaehollandiae*), listed as Priority 3 by DBCA; and
- Glossy ibis (*Plegadis falcinellus*), protected under International Agreement (DBCA, 2007-).

Carnaby's cockatoo

Carnaby's cockatoo nests in hollows in live or dead trees of wandoo, York gum, salmon gum, powderbark wandoo (*Eucalyptus accedens*), marri (*Corymbia calophylla*), jarrah (*Eucalyptus marginata*), flooded gum (*Eucalyptus rudis*), tuart (*Eucalyptus gomphocephala*) and karri (*Eucalyptus diversicolor*) (Commonwealth of Australia, 2012). Numerous wandoo trees containing hollows were observed within the application area and may provide suitable nesting habitat for the species (DWER, 2019).

Common foraging items for Carnaby's cockatoo includes seeds, flowers and nectar of Proteaceous plant species, *Eucalyptus* spp. and *Callistemon* spp. (Commonwealth of Australia, 2012). The DWER site visit noted the dominance of wandoo within the application area (DWER, 2019). The application area is likely to contain suitable foraging habitat for Carnaby's cockatoo.

Baudin's cockatoo

Baudin's cockatoo primarily feeds on marri (*Corymbia calophylla*) which was not observed in the application area during the DWER site inspection (DWER, 2019). The application area is not located within the predicted breeding range of the species (Commonwealth of Australia, 2012). Therefore, no significant impacts to Baudin's cockatoo are expected from the proposed clearing.

Forest red-tailed black cockatoo

Forest red-tailed black cockatoo primarily forages in jarrah (*Eucalyptus marginata*) and marri forest but may also forage in wandoo (Commonwealth of Australia, 2012). Therefore, the application area may contain suitable foraging habitat for forest red-tailed black cockatoo. The species is also known to nest in wandoo (Commonwealth of Australia, 2012). Numerous wandoo trees containing hollows were observed within the application areas and may provide suitable nesting habitat for the species (DWER, 2019).

Project areas that contain foraging habitat and potential habitat trees for black cockatoos observed during the site visit include Clifford street, Reeds street, Stratherne Road, Bunmulling Road Bridge realignment area, Wandering Narrogin Road, Congelin Narrogin Rd, Popanyinning East Road and Popanyinning West Road (DWER, 2019). It is not considered for the Shaddicks Street gravel pit and the Popanyinning gravel pit areas to represent significant black cockatoo foraging or nesting habitat.

Based on the site visit and aerial imagery, the proposed clearing will result in the loss of up to 12.85 hectares of black cockatoo foraging habitat and potential loss of habitat trees. It is considered that the proposed impacts to foraging habitat within degraded roadside vegetation may be approved subject to the implementation of a suitable offset (discussed further under Section 5 of this report) that protects larger remnants of existing vegetation as well improving the current extent of native vegetation through rehabilitation with black cockatoo foraging species.

It is considered the potential impacts to black cockatoos nesting habitat, can be adequately mitigated through fauna management conditions that require inspection of potential habitat trees prior to clearing (Figure 'CPS 8496/1 Survey Requirements') and restriction on clearing trees that have been identified as being utilised by black cockatoos.

Malleefowl

The malleefowl is recognised as a threatened species under State and Commonwealth legislation. Malleefowl are found in arid and semi-arid areas dominated by mallee eucalypts on sandy soils and are most commonly seen in reserves and private property

within and around the Wheatbelt region. A sandy substrate and abundance of leaf litter are required for successful construction of nest mounds (Parks and Wildlife, 2016). The application areas do not provide suitable habitat for this species (DWER, 2019).

#### Numbat

The numbat is known from two surviving subpopulations (Dryandra Woodland and Upper Warren) and has been translocated to 12 different sites within the former range of the species (Department of Parks and Wildlife, 2017). The application area is located adjacent to State Forest 53 which forms part of Dryandra Woodland.

According to the Recovery Plan, the key habitat requirements of the numbat include:

- presence of termites in sufficient abundance;
- sufficient cover – adequate cover near ground level is required to provide refuge from raptors – cover may be provided by thickets or a combination of thickets and hollow logs;
- sufficient openness – although a degree of cover is required for refuge from predators, a sufficiently open understorey is required for feeding sites – a combination of an open understorey interspersed with thickets and hollow logs is ideal; and
- presence of eucalypt species – the majority of sites where numbats occur and were recorded in the past are characterised by the presence of eucalypt species thus providing logs and hollows and possibly higher termite densities (Parks and Wildlife, 2017).

The preferred habitat of the numbat includes hollow horizontal logs, heavy leaf litter, and rocky crevices. Noting this, the application area is not likely to contain suitable habitat for the numbat (DWER, 2019).

#### Bilby

Historically, the bilby occupied a vast area of Australia with records from all states except Victoria and Tasmania. In WA, the distribution of the bilby extended from the Dampier Peninsula in the north to the Wheatbelt in the southwest. The species is now restricted to the Pilbara and Kimberley in WA, the Tanami, Great Sandy and Gibson deserts in NT, and an isolated population in southwest Queensland (Pavey, 2006). The application area does not occur within the current distribution of the bilby and therefore no impacts to the species are expected.

#### Red-tailed phascogale

The preferred habitat of the red-tailed phascogale is *Allocasuarina* spp. woodlands with hollow-bearing *Eucalyptus* spp. Noting this, the application area may contain some areas of suitable habitat for the red-tailed phascogale.

#### Woylie

Once widespread across the Australian mainland, the remaining sub-populations of this species now inhabit woodlands and adjacent heaths with a dense understorey of shrubs in south-west Australia with the closest recordings to the application area being confined to State Forests. The species is nocturnal, seeking cover in dense vegetation during the day and has a diet that consists mostly of tubers and fungi. The recovery plan (DEC, 2012) notes that Woylies may persist in the following habitats where there is adequate introduced predator (fox and cat) control or exclusion:

- tall eucalypt forest and woodland;
- dense myrtaceous shrubland; or
- kwongan (proteaceous) or mallee heath.

Noting the above, the application area is not likely to contain suitable habitat for Woylies.

#### Western Quoll

This species has historically been recorded within a wide variety of habitats, but some of the essential criteria for the species is listed (DEC, 2012b) as:

- Adequate den resources;
- Adequate prey resources; and
- A sizeable area (>20,000 hectares).

Considering the application area is limited to small strips of roadside vegetation, the application area is unlikely to provide suitable habitat for this species.

The majority of the remaining fauna species have been recorded within the Dryandra woodland conservation reserve which occurs within the local area of the application. Noting the conservation status of these species, and the degraded nature of much of the Application Area it is considered unlikely that the proposed clearing will not impact the conservation status of these species.

#### Ecological linkages

A number of the project areas contribute to landscape connectivity and contribute to fauna dispersal between larger isolated bushland fragments within an extensively cleared landscape. The movement of fauna across cleared areas exposes them to greater levels of predation and as such maintaining linkages of continuous vegetation is important for the conservation of these ground dwelling species.

The Wandering-Narrogin Road and Congelin-Narrogin Road project areas act as an ecological linkage, however there are vegetated areas along watercourses that surround these areas which have the same alignment and may also facilitate the movement of fauna species across the landscape. The northern portion of Stratherne Road (from Dixon Road intersection to Bunmulling Road intersection) similarly has a nearby vegetated watercourse in similar alignment to the roadside that may also facilitate the movement of fauna across the landscape.

The southern portion of Stratherne Road (south of the intersection with Dixon Road) and Popanyinnig East Road are less likely to function as an ecological linkage as there are bare areas within the roadside vegetation (one of around 300 meters).

Popanyinning West Road may provide ecological linkage between smaller fragments of vegetation. There are patches of vegetation to the north and south that may also act as steppingstone in connecting the landscape.

There is a large patch of remnant vegetation within Crown land along Reeds Road which is connected through the landscape in an east-west direction across private property. Remnant vegetation within Reeds Road reserve may act as an ecological linkage for movement of species in a north-south direction though there are only minor remnants on this alignment when compared to the alignment of vegetation in an east-west direction.

The applicant has made efforts in considering minimisation and mitigation measures as detailed in section 3 above reducing the width of the clearing where possible throughout the individual project areas, with some of the proposed clearing being limited to one side of the road reserve. A number of road reserves will also retain vegetation within the road reserve, thus not severing the ecological values of the road reserves. The applicant has committed to planting understory species within the Stratherne Road reserve and the Popanyinning East Road reserve project areas. It is uncertain if any of the remaining strips would still serve as an ecological linkage as it cannot be confirmed that these strips contain any understory to facilitate movement of small ground dwelling species. However, the introduction of additional areas of understory vegetation within these road reserves will still aid improving the linkage values of the respective road reserves.

#### Summary

The proposed clearing will result in the loss of up to 16.848 hectares of native vegetation including black cockatoo foraging habitat and potential habitat trees, potential habitat for red-tailed phascogale and impact on a number of roads that act as ecological linkages. A permit to clear has been conditioned with requirements for fauna management in relation to the red-tailed phascogale and black cockatoo species. It is considered that the proposed impacts to significant foraging habitat for Carnaby's cockatoo are of a scale that can be offset through the offset proposed by the applicant. Further details on the offset are provided in Section 5. The revegetation commitments by the applicant to plant understory species within Stratherne Road reserve and Popanyinning East Road has been conditioned on the permit to improve the ecological linkage values of the reserves.

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

#### **Proposed clearing may be at variance with this Principle**

According to available datasets, eight threatened flora species listed under the BC Act have been recorded in the local area, being;

- *Acacia insolita* subsp. *recurva* has been recorded approximately 5.85 kilometres from the Yornanning Road East project area. This species is known from records from the Shires of Cuballing and Wickepin and is typically associated with lateritic ridges (Western Australian Herbarium, 1998-).
- *Anthocercis gracilis* has been recorded approximately 2.2 kilometres from the Popanyinning west project area. This species is known from records within the Shires of Cuballing, Gosnells, Kalamunda, Mundaring, Murray, Serpentine-Jarrahdale, and Wandering and is associated with sandy or loamy soils and granite outcrops (Western Australian Herbarium, 1998-).
- *Banksia cuneata* has been recorded approximately 400 metres from the Bunmulling Bridge project area. This species is known from records from the Shires of Brookton, Bruce Rock, Cuballing and Quairading, and is typically associated with grey, yellow or yellow-brown sands (Western Australian Herbarium, 1998-).
- *Darwinia carnea* has been recorded within 5.86 kilometres from the Popanyinning West project area. This species is known from records within the Shires of Cranbrook, Cuballing, Gingin, Narrogin, and Victoria Plains and is associated with lateritic loam and gravel.
- *Eleocharis keigheryi* has been recorded within 1.85 kilometres from the Stratherne Road and the Bunmulling Bridge project area. This species is known from records within the Shires of Beverley, Boddington, Boyup Brook, Brookton, Capel, Carnamah, Chittering, Collie, Coorow, Cuballing, Dandaragan, Dardanup, Gingin, Gosnells, Kojonup, Moora, Swan, Toodyay, Victoria Plains, Wagin, and Waroona and is associated with clay and sandy loam soils, creeks and claypans.
- *Pultenaea pauciflora* has been recorded within 1.653 kilometres from the Springhill-Nebrikinning Intersection project area. This species is known from records within the Shires of Boddington, Brookton, Narrogin and Williams and is associated with sandy and clay lateritic soils.
- *Verticordia fimbriolepis* subsp. *fimbriolepis* has been recorded within 5.32 kilometres from the Popanyinning gravel pit project area. This species is known from records within the Shires of Armadale, Beverley, Brookton, Cuballing, Kojonup, Narrogin, Pingelly, Wandering, and Woodanilling and is associated with gravelly sandy or clayey soils, flats and road verges (Western Australian Herbarium, 1998-).

The majority of the application areas contain wandoo woodland with scattered *Allocasuarina* spp. in a degraded condition (Keighery, 1994) (DWER, 2019) and are unlikely to provide suitable habitat for threatened flora, given that the understorey is devoid of native vegetation and consists of grassy weeds.

However, based on the habitat preferences of threatened flora species in the local area and that some areas of the project areas proposed to be cleared contain vegetation in a good or better condition, the following project areas may contain suitable habitat for threatened flora:

- Reeds Road,
- Popanyinning East Road,
- Popanyinning West Road,
- Congelin-Narrogin Road,
- Popanyinning Gravel Pit,
- Shaddicks Street Gravel Pit, and

- Bunmulling Road Bridge.

During the assessment phase, the applicant provided targeted flora and vegetation surveys for some of the project areas:

- Stratherne Road 'Reconnaissance and Targeted Flora and Vegetation Survey Stratherne Road 4.04-5.04 SLK Cuballing' (Ecoedge, 2020);
- Wandering-Narrogin Road 'Reconnaissance and Targeted Flora and Vegetation Survey Wandering-Narrogin Road 27.12-29.56SLK Cuballing' (Ecoedge, 2020a);
- Ecoedge (2020b) 'Reconnaissance and Targeted Flora and Vegetation Survey Boundary Road Gravel Pit Popanyinning'.
- Ecoedge (2020c) 'Reconnaissance and Targeted Flora and Vegetation Survey Shaddicks Road Cuballing'.

The surveys listed above noted that no threatened flora were found during the survey. A Priority 1 flora species *Hemigenia* sp. Newdegate (E. Bishop 75) was recorded at the Shaddicks Road gravel pit area, no other conservation significant flora species were recorded in the surveys.

Noting the application area may provide habitat for threatened flora species, the proposed clearing may be at variance with this Principle. A flora management condition on the permit will mitigate impact to threatened flora through the requirement to survey prior to clearing. If threatened flora species are found, clearing of these individuals is not permitted.

**(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**

**Proposed clearing is not likely to be at variance with this Principle**

No TECs listed by the Western Australian Minister for Environment occur within the local area.

Given this, it is not considered likely that the areas proposed to be cleared comprise of or are necessary for the maintenance of a state listed TEC. The proposed clearing is not likely to be at variance with this Principle.

Consideration of impacts to the 'Eucalyptus woodlands of the Western Australian Wheatbelt', listed under the EPBC Act, can be found under principle (a).

**(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.**

**Proposed clearing is at variance with this Principle**

The National Objectives and Targets for Biodiversity Conservation 2001-2005 include a target to have clearing controls in place that prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750 (i.e. pre-European settlement) (Commonwealth of Australia, 2001). This is the threshold level below which species loss appears to accelerate exponentially.

In assessing the risk of further loss and subsequent cumulative effects, consideration has been given to the extent of native vegetation remaining and what is currently managed as conservation estate:

- as indicated in Table 2, the current vegetation extents for the bioregion, and mapped Beard vegetation association are all below the recommended 30 per cent thresholds;
- as indicated in Table 2, less than two per cent of the pre-European extent of the mapped Beard vegetation association is contained in conservation estate; and
- the local area retains approximately 20 per cent pre-European native vegetation cover.

As discussed in Principle (b), some of the project areas provide or contribute to ecological linkages that facilitate landscape connectivity and contribute to fauna dispersal between larger isolated bushland fragments in an extensively cleared landscape. The application area includes significant habitat for threatened black cockatoo species, may contain habitat for threatened and priority flora and some areas represent a nationally listed TEC. On this basis the vegetation within the application area is considered to be significant as a remnant in a highly cleared landscape. The proposed clearing is at variance with this Principle.

**Table 2: Vegetation extent remaining statistics**

	Pre-European extent (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed lands (ha)	Extent remaining in all DBCA managed lands (proportion of Pre-European extent) (%)
<b>IBRA Bioregion</b>					
Avon Wheatbelt	9,517,110	1,761,227	18.5	174,961	1.8
<b>Beard vegetation association</b>					
1023	1,601,606	172,944	10.8	18,907	1.2
<b>Beard vegetation association in IBRA Bioregion</b>					
1023 (Avon Wheatbelt)	1,522,680	165,193	10.8	17,258	1.1

**(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.**

**Proposed clearing is at variance with this Principle**

The Hotham River intersects the Bunmulling Bridge project area and a number of minor non-perennial watercourses cross the project areas along Stratherne Road and Wandering-Narrogin Road. The site inspection identified that riparian vegetation growing in association with these watercourses occur within the application area.

Given the above, the proposed clearing is at variance with this Principle. Taking into account the small scale of clearing within the watercourses and the proposed clearing of riparian vegetation within Stratherne and Wandering – Narrogin road reserves is limited to existing culvert areas, the proposed clearing is not considered to significantly impact riparian vegetation.

**(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.**

**Proposed clearing is not likely to be at variance with this Principle**

As discussed within Section 2, four main soil subsystems have been mapped within the application area being Noombling (Dryandra), Norrine (Dryandra), Biberkine (Dryandra) and Popanyinning Subsystem (Pumphreys). Table 3 summarises the land degradation risks associated with each of the soil subsystems mapped within the application areas.

**Table 3: Land degradation risks of the mapped soil subsystems within the application area**

<b>Risk categories</b>	<b>Noombling</b>	<b>Norrine</b>	<b>Biberkine</b>	<b>Popanyinning</b>
Wind erosion	10-30% of map unit has a high to extreme wind erosion risk	10-30% of map unit has a high to extreme risk of wind erosion	<3% of map unit has a high to extreme wind erosion risk	10-30% of map unit has a high to extreme wind erosion risk
Water erosion	3-10% of map unit has high to extreme water erosion risk	10-30% of map unit has a high to extreme risk of water erosion	<3% of map unit has high to extreme water erosion risk	10-30% of map unit has a high to extreme water erosion risk
Salinity	10-30% of map unit has a moderate to high salinity risk or is presently saline	3-10% of map unit has a moderate to high salinity risk or is presently saline	<3% of map unit has a moderate to high salinity risk or is presently saline	10-30% of map unit has a moderate to high salinity risk or is presently saline
Subsurface Acidification	10-30% of map unit has a high subsurface acidification risk	3-10% of map unit has a moderate to high risk of subsurface acidification	10-30% of map unit has a high subsurface acidification risk	10-30% of map unit has a high subsurface acidification risk
Flood risk	<3% of map unit has a moderate to high flood risk	<3% of map unit has a moderate to high flood risk	10-30% of map unit has a moderate to high flood risk	10-30% of map unit has a moderate to high flood risk
Water logging	<3% of map unit has a moderate to very high waterlogging risk	<3% of map unit has a moderate to very high waterlogging risk	<3% of map unit has a moderate to very high waterlogging risk	10-30% of map unit has a high to extreme wind erosion risk
Phosphorus export risk	10-30% of map unit has a high to extreme phosphorus export risk	10-30% of map unit has a high to extreme phosphorus export risk	10-30% of map unit has a high to extreme phosphorus export risk	10-30% of map unit has a high to extreme phosphorus export risk

Areas of higher salinity risk within the application area are associated with occurrences of surface water. As noted above in Principle (f), the Hotham River intersects the Bunmulling Bridge project area and several minor non-perennial watercourses cross the project areas along Stratherne Road and Wandering-Narrogin Road. As much of the watercourses remain vegetated, and the initial risk of salinity is considered low, it is considered that the proposed clearing will not cause appreciable land degradation in the form of salinity.

Wind erosion risk over the application area is generally low with the highest risk rating given as ‘10-30% of map unit has a high to extreme risk of wind erosion’. Noting the shape and size of the project areas, it is expected the risk of wind erosion risk can be managed by land management practices which do not expose the soils for extended durations.

Water erosion risk, water logging and flood risk over the application area is generally low with the highest risk rating given as ‘10-30% of map unit has a high to extreme or high risk’ of the land degradation category. Considering the annual average rainfall for the area is 500 millimetres a year, the shape and extent of the clearing, the permeable nature of the soils, and the presence of existing culverts along roads, it is considered that the proposed clearing will not cause appreciable land degradation in the form of water erosion, water logging and flood risk.

Subsurface acidification and phosphorus export risk within the application area is generally low with the highest risk rated as ‘10-30% of map unit has a high subsurface acidification risk’. Considering the proposed clearing is mostly linear, is within a road reserve and the purpose of clearing is for road upgrades which ordinarily do not contribute to increase of subsoil acidification, or require excavation to a depth that will impact subsoil acidification, it is considered that the proposed clearing will not cause appreciable land degradation in the form of subsurface acidification.

Based on the mapped land degradation risks outlined above, the application area has a low to moderate likelihood of wind and water erosion, subsurface acidification, phosphorus export, salinity, water logging and flooding (Schoknecht et al., 2004).

Given that the proposed clearing is to occur over 11 locations over a period of 10 years, it is not expected for appreciable land degradation. The proposed clearing is not likely to be at variance with this Principle.

**(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.**

**Proposed clearing may be at variance with this Principle**

The nearest conservation areas are Fourteen Mile Brook Nature Reserve, which abuts the Wandering-Narrogin Road project area and Lol Grey State Forest which is adjacent to the Congelin - Narrogin Road project area.

The proposed clearing may increase the spread of weeds and dieback into the adjacent conservation areas. A hygiene management condition on the permit will assist in mitigating this risk.

As discussed within Principles (b) and (e), the application area is likely to function as a linkage between areas of remnant vegetation in the landscape. Given the extent to which the local area, and the Avon Wheatbelt Bioregion have been previously cleared, the application area may contribute towards fauna dispersal between the abovementioned conservation areas and remnant vegetation located within the local area, and the proposed clearing may therefore impact on the environmental values of these areas.

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

**(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.**

**Proposed clearing is not likely to be at variance with this Principle**

Groundwater salinity within the application area is mapped at 7000-14000 milligrams per litre total dissolved solids. This level of groundwater salinity is classified as 'saline'. Given that the proposed clearing is to occur over 11 separate locations over a period of 10 years, it is not expected for the proposed clearing to cause an increase in ground water salinity.

The Hotham River intersects the Bunmulling bridge project area and minor non-perennial watercourses cross the project areas along Stratherne Road and Wandering-Narrogin Road. The clearing within these watercourses is at a small scale and is not expected to impact the quality of surface water within these watercourses. Impacts, if any, are likely to be short term and minimal.

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

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

**Proposed clearing is not likely to be at variance with this Principle**

As discussed within Table 3, less than three per cent of the mapped soil units over the majority of the application area has a moderate to high flood risk (the lowest risk rating). Based on the relatively low risk of flooding and the nature of the soils within the application area, the proposed clearing is not likely to cause or exacerbate, the incidence or intensity of flooding.

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

**Planning instruments and other relevant matters.**

The application areas are zoned as local road reserves under the Local Town Planning Scheme. The two gravel pit areas are zoned as Public Purpose and General Agriculture. The proposed clearing is consistent with the zoning.

The proposed clearing may be considered a 'controlled action' under the EPBC Act, as clearing may impact threatened black cockatoo species and a federally listed TEC. The applicant is responsible in determining if the proposed clearing should be referred to the Commonwealth Department of Agriculture, Water and the Environment (DAWE).

The application area occurs within a *Rights in Water and Irrigation Act 1914* (the RIWI Act) surface water area (the Murray River System) and may require approvals to interfere with bed and banks of watercourses.

No Aboriginal sites of significance have been mapped within the application areas.

The clearing permit application was advertised on the DWER website on 12 June 2019 with a 21-day submission period. One submission has been received. The submission stated concerns relating to

- The extent of the proposed clearing and that further evidence from the applicant is required to justify that avoid and minimise measures have been considered.
- The need for upfront flora and fauna surveys were also stated in the submission. This is so that avoidance of vegetation that contain TECs and threatened flora can occur prior to a decision being made on the application.
- Offsets for the application should include revegetation of cleared areas within existing road reserves and along drainage lines between conservation areas should be considered. Alternatively, revegetation of degraded areas within existing Shire Reserves should be considered.



- The applicant seek alternative sources of funding for flora and fauna surveys or ensure that external funding for road construction also be available for surveys (Submission, 2019).

The following points address the concerns raised in the submission:

- The need for upfront flora and fauna surveys have been addressed through conditions on the permit. The permit holder is required to undertake flora and fauna surveys in areas where conservation significant flora and fauna may occur. The permit holder is not able to impact significant flora and fauna values. The permit holder also provided surveys for four project areas, prior to the determination of this application.
- Avoidance of conservation significant flora is conditioned on the permit.
- The permit holder provided sufficient evidence of avoidance and minimisation of clearing of native vegetation (see section 3), including a reduction in road formation width as well as restricting clearing to only one side of the road.
- A permit to clear has been conditioned to further require the applicant to revegetate three of the project areas once they are no longer being utilised for the purpose in which they were cleared. The permit holder is also undertaking revegetation activities within the two of the road reserves proposed to be cleared.
- Regarding the applicant seeking alternative sources for funding, it is the responsibility of the applicant to consider such matters. This is not a relevant consideration in assessing a clearing permit application.

## 5. Suitability of Proposed Offset

After avoidance, minimisation, and mitigation (outlined in Section 3 of this report), it is considered that the proposed clearing will result in the following significant residual impacts:

- Clearing of 12.85 hectares of foraging and potential nesting habitat for Carnaby's cockatoo and the Forest red-tailed black cockatoo;
- Clearing of 16.848 hectares of a significant remnant in a highly cleared landscape; and
- Clearing of 2 hectares of the Commonwealth listed Wheatbelt Woodlands.

The applicant has proposed an offset, to counterbalance the significant residual impacts listed above, consisting of:

- Conservation of Crown Reserve 8861 (contains Beard vegetation community 1023) through changing the zoning under the Town Planning Scheme from Gravel to Conservation.
- Conservation of part of Crown Reserve 19021 (contains Beard vegetation community 1023) through subdividing the Reserve into two separate lots as 'gravel' and 'conservation'. It is noted that of the reserve is 57.22 hectares in total with 50.39 hectares described to be in 'excellent' (Ecoedge, 2020d) condition in total. Only 30.9 hectares of Crown Reserve 19021 is required to be used as an offset to counterbalance the significant residual impacts. The southern portion of this reserve is currently being used for gravel extraction. As the proposed clearing is throughout a 10-year period, the entire reserve could also be conserved by changing the zoning under the Town Planning Scheme from Gravel to Conservation. In this event, the offset of 30.9 hectares under CPS 8496/1 would still meet the requirements of counterbalancing environmental impacts of the proposed clearing and the remaining area could be utilised as a revegetation offset for future projects.

The offset sites are located within 10 to 20 kilometres of the application areas within the Shire of Cuballing (Figure 8 below). The quality of vegetation within the offset sites was determined from a survey provided by the applicant (Ecoedge, 2020d). The values of each of the offset sites are detailed below. The offset sites are mapped as the same Beard vegetation association as the application areas. It is considered that the offset sites contain environmental values that are comparative to those being lost.

To determine an offset that would be adequately proportionate to the significance of the environmental values being impacted, DWER undertook a calculation using the Commonwealth Offsets Assessment Guide. It is noted that each of the impacts (impacts to Wheatbelt Woodlands TEC, significant remnant and impacts to breeding and foraging habitat for black cockatoos) has been calculated individually. The values of Table 6 below are applied to offset CPS 8496/1 due to total requirement to meet each of the values being offset. The 10.78 hectares within Reserve 8861 combined with 30.9 hectares within Reserve 19021 meets 100% of the offset requirements. The calculation indicated that the conservation of 41.68 hectares of native vegetation is required as a suitable offset for the proposed clearing.

Given the above, the offsets proposed by the applicant are considered adequate to counterbalance most of the significant residual impacts of the proposed clearing consistent with the *WA Environmental Offsets Policy September 2011*. However, as the proposed offset sites do not contribute to improved connectivity of habitat within the landscape, they are not considered adequate to offset the identified impacts of the proposed clearing on ecological linkage values. It is noted that impacts to ecological linkages have been reduced by the Shire and is detailed under Section 3 of this report.

In the event that the change in purpose of Lot 375 on Deposited Plan 84757 (being Crown Reserve 8861) and Lot 3575 on Deposited Plan 111952 (being Crown Reserve 19021) from 'Gravel' to 'Conservation' is not achieved, the applicant will be required to make two monetary contributions of \$20,805.40 and \$59,637 respectively to DWER for the acquisition of a total of 41.68 hectares (size of offset within Crown Reserve 8861 (10.78 ha) and Crown Reserve 19021 (30.9 ha) of similar native vegetation for conservation. The monetary contributions are proposed to be made in stages to align with the staged nature of the works proposed by the applicant. The applicant's monetary contributions have been based on current land values of 41.68 hectare parcels of vegetation within the Shire of Cuballing (\$1930 per hectare). The current land values for 100-hectare parcels of vegetation within the Shire of Cuballing has not been utilised due to the low likelihood of DWER being able to purchase large parcels within the extensively cleared landscape. It is envisaged that DWER will likely be able to purchase smaller parcels of land. The receipt of funds will be used to acquire vegetated land within the region that contain the same environmental values being impacted by the proposed clearing.

The remaining habitat within Reserves 8861 and 19021 may be banked for future authorised clearing. It should be noted that use of the banked offset sites will not be automatically accepted in every instance. In each case, the Shire must demonstrate how the offset counterbalances the significant residual impacts of the associated clearing.

The Delegated Officer noted that the proposed offset of the change in purpose from 'gravel' to 'conservation' for Reserves 8861 and 19021 may take up to one year for the process to be finalised. The Delegated Officer recognised that the proposed road upgrades and associated works should be able to commence whilst this process occurs. The Delegated Officer conditioned the permit that clearing of up to 3.49 hectares of native vegetation may occur prior to the change in purpose being finalised for Reserve 8861. This area was determined by calculating that 10.78 hectares within Reserve 8861 is sufficient to offset 3.49 ha of clearing using the values of significant remnant vegetation. Up to 13.4 hectares may be cleared prior to change in purpose of Reserve 19021 as 13.4 hectares of clearing would require the offset of 30.9 hectares using the values for significant remnant vegetation.

The reserves to be used as offset sites are shown in Figures 8-14 below.



Figure 8: Showing locations of proposed offset sites in relation to the proposed clearing areas.

#### **Values of Reserve 8861**

The surveys provided by the applicant (Ecoedge, 2020d) noted the following values within Reserve 8861 from a Reconnaissance Flora Survey in 2019:

- Two vegetation units within the reserve described as Wheatbelt Wandoo woodland and Mallet Woodland.
- A total of 10.78 hectares of vegetation within the Reserve is representative of the Wheatbelt Woodlands TEC and considered to be in 'very good' (Keighery, 1994) condition.
- The vegetation within this reserve is considered representative of Beard Vegetation Association 1023.
- The vegetation comprised of species representative of suitable breeding habitat for black cockatoo species and it was noted that 20-30 *Eucalyptus capillosa* trees within the reserve had a diameter at breast height (DBH) of greater than 300 millimetres.
- The survey considered 8.81 hectares suitable for foraging by Carnaby's cockatoo species due to the presence of proteaceous species within the understory. However it is noted that Carnaby's cockatoo will also forage on wandoo and other eucalypt species. In addition to this, the consideration of offset site for impacts to black cockatoo species includes breeding and foraging and so it is considered that 10.78 hectares of this reserve provides foraging and breeding habitat for Carnaby's cockatoo. It is considered that the Reserve contains suitable habitat for Forest red-tailed cockatoos but to a lesser extent due to the species having preference for jarrah/marri forest.
- Reserve 8861 contains 4.19 hectares of vegetation in a degraded to completely degraded (Keighery, 1994) condition.

# CPS 8496/1 -Reserve 8861

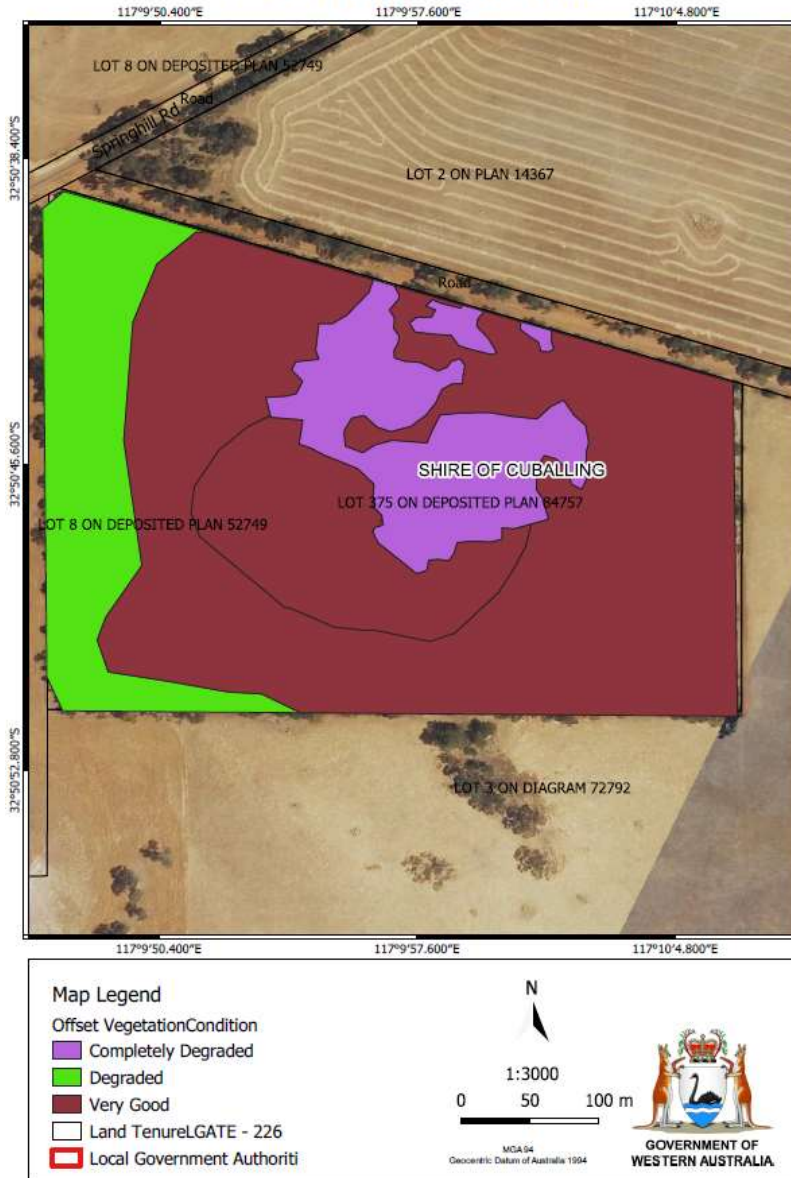


Figure 9: Showing mapped vegetation condition within Reserve 8861

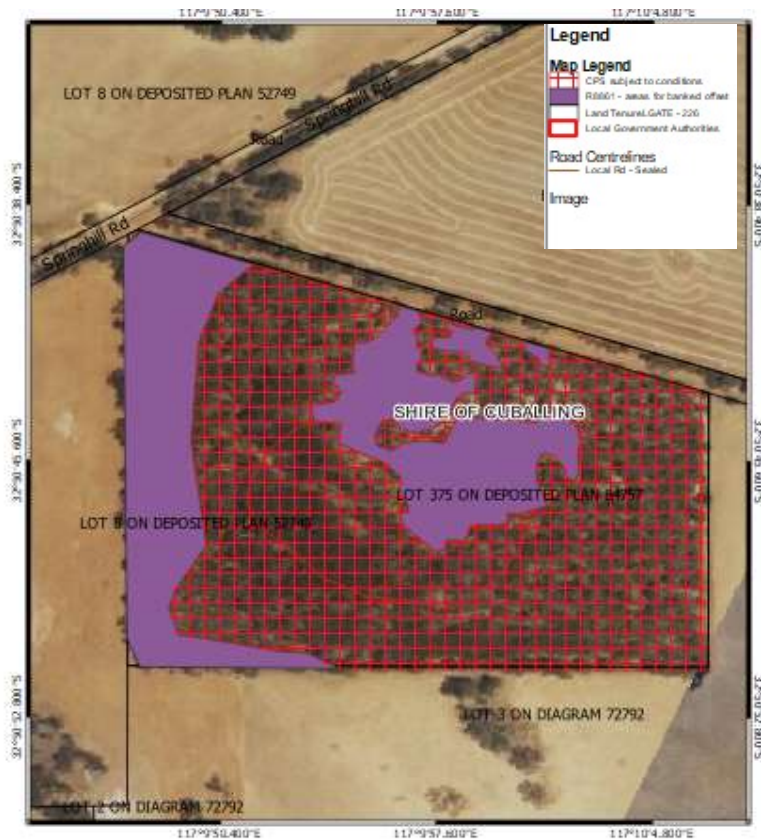


Figure 10: Showing mapped vegetation condition within Reserve 8861 with areas in purple in degraded/completely degraded condition which may be suitable for future offsets (banked). Area cross hatched red is being utilised as an offset for CPS 8496/1.

**Values of Reserve 19021**

The surveys provided by the applicant (Ecoedge, 2020d) noted the following values within Reserve 19021 from a Reconnaissance Flora Survey in 2019:

- One vegetation unit has been identified within the reserve described as Wheatbelt Wandoo woodland on gravels or sandy loams.
- A total of 50.39 hectares of vegetation within the Reserve is representative of the Wheatbelt Woodlands TEC.
- The vegetation within this reserve is considered representative of Beard Vegetation Association 1023.
- The survey noted that most of the *Eucalyptus capillosa* trees within the Reserve had a DBH of less than 300 millimetres but several are considered potential breeding trees.
- The survey considered 50.39 hectares of this reserve is suitable for foraging by Carnaby's cockatoo and Forest red-tail black cockatoo species due to the presence of proteaceous species within the understory. However it is noted that Carnaby's cockatoo will also forage on wandoo and other eucalypt species (*Banksia* and *Allocasuarina*).
- Reserve 19021 contains 7.79 hectares in completely degraded (Keighery, 1994) condition.

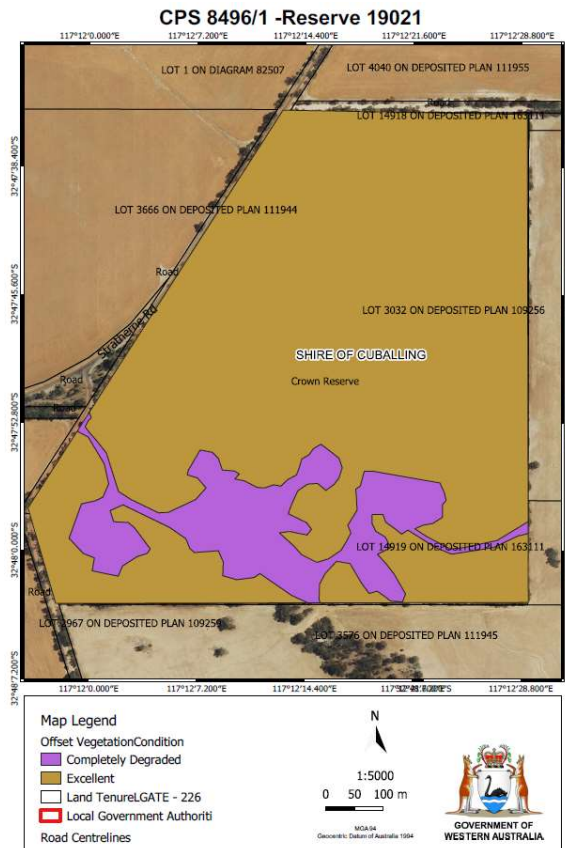


Figure 11: Showing mapped vegetation condition within Reserve 19021

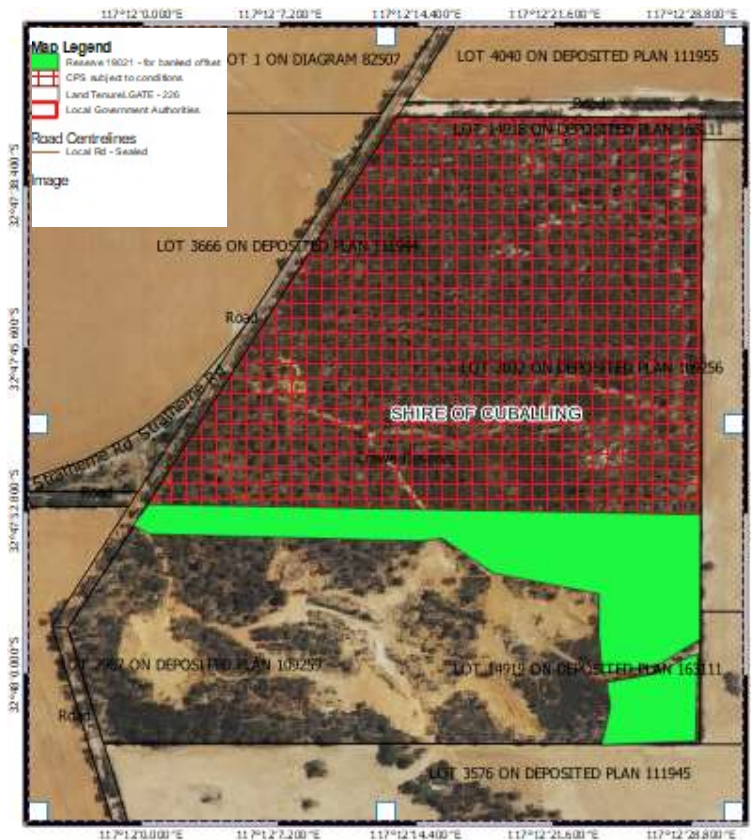


Figure 12: Showing mapped vegetation condition within Reserve 19021 with areas in green in excellent condition (7.5 hectares) which may be suitable for future offsets (banked). Area cross hatched red is being utilised as an offset for CPS 8496/1. The remainder of Reserve 19021 may be utilised as an offset following completion of gravel extraction activities.

## 6. References

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- Ecoedge (2020b) 'Reconnaissance and Targeted Flora and Vegetation Survey Boundary Road Gravel Pit Popamyinning'. DWER reference: A1908992
- Ecoedge (2020c) 'Reconnaissance and Targeted Flora and Vegetation Survey Shaddicks Road Cuballing'. DWER reference: A1908991
- Ecoedge (2020d) 'Reconnaissance Flora Surveys R8861, R19021 and R2556 Shire of Cuballing'. DWER reference: A1908993
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### GIS databases:

- CPS Areas applied to clear
- NatureMap (conservation significant fauna)
- DAFWA Subsystems V5
- Soils of WA
- Vegetation Complexes – Swan Coastal Plain
- Managed Tenure
- Environmentally Sensitive Areas
- TPFL Data March 2019
- WAHerb Data March 2019
- Aboriginal Sites Register
- IBRA Vegetation WA
- WA TECPEC
- Land Degradation Hazards

**Appendix 1: Justification of values used in the Commonwealth Offset Assessment Guide**

**Table 1: Offset associated with counterbalancing the significant residual impacts to Carnaby's cockatoo breeding and foraging habitat**

<b>Field Name</b>	<b>Description</b>	<b>Reserve 8861</b> <b>Justification for value used – Offset to impacts to Black cockatoos</b>	<b>Reserve 19021</b> <b>Justification for value used – Offset to impacts to Black cockatoos</b>
<i>IUCN Criteria</i>	The IUCN criteria for the value being impacted	1.2% - Carnaby's cockatoo are listed as Endangered, and Forest red-tailed black cockatoo is listed as Vulnerable, under the EPBC Act. Given impacts are to all species, the highest conservation status (Endangered) is applicable.	1.2% - Carnaby's cockatoo are listed as Endangered, and Forest red-tailed black cockatoo is listed as Vulnerable, under the EPBC Act. Given impacts are to all species, the highest conservation status (Endangered) is applicable.
<i>Area of impact (habitat/community) or Quantum of impact (features/individuals)</i>	The area of habitat/community impacted or number of features/individuals impacted	12.85 hectares of foraging and potential breeding habitat.	12.85 hectares of foraging and potential breeding habitat.
<i>Quality of impacted area (habitat/community)</i>	The quality score for area of habitat/community being impacted - a measure of how well a particular site supports a particular threatened species or ecological community and contributes to its ongoing viability	5 - Vegetation in good condition. The decision report determined the vegetation within the application area ranges from excellent to degraded condition. A score of 5 has been applied to indicate that overall, the average condition of the vegetation within the application area is considered to be in good condition.	5 - Vegetation in good condition. The decision report determined the vegetation within the application area ranges from excellent to degraded condition. A score of 5 has been applied to indicate that overall, the average condition of the vegetation within the application area is considered to be in good condition.
<i>Time over which loss is averted (habitat/community)</i>	This describes the timeframe over which changes in the level of risk to the proposed offset site can be considered and quantified	20 years - The proposed offset would change the purpose of the reserve to conservation in perpetuity therefore the maximum 20 years is applied.	20 years - The proposed offset would change the purpose of the reserve to conservation in perpetuity therefore the maximum 20 years is applied.
<i>Time until ecological benefit (habitat/community) or Time horizon (features/individuals)</i>	This describes the estimated time (in years) that it will take for the main benefit of the quality (habitat/community) or value (features/individuals) improvement of the proposed offset to be realised	1 - It is considered that it will take no more than 1 year to change the reserve purpose from 'gravel' to 'conservation'.	1 - It is considered that it will take no more than 1 year to change the reserve purpose from 'gravel' to 'conservation'.
<i>Start area (habitat/community) or Start value (features/individuals)</i>	The area of habitat/community or number of features/individuals proposed to offset the impacts	10.78 hectares - Area of remnant vegetation proposed to be offset that is considered suitable for use as an offset.	29.67 hectares - required to offset the residual impacts after considering the values offset from Reserve 8861.

<i>Start quality (habitat/community)</i>	The quality score for the area of habitat/community proposed as an offset - a measure of how well a particular site supports a particular threatened species or ecological community and contributes to its ongoing viability	6 - Native vegetation condition at the offset site is considered to be 'Very Good' condition. Offset site has same mapped vegetation association as found within the impact site.	8 - Native vegetation condition at the offset site is considered to be in 'Excellent' condition. Offset site has same mapped vegetation association as found within the impact site.
<i>Future quality without offset (habitat/community) or Future value without offset (features/individuals)</i>	The predicted future quality score (habitat/community) or value (features/individuals) of the proposed offset site without the offset	6 - The quality is considered unlikely to change over a 1 year period to acquire the change in purpose.	8 - The quality is considered unlikely to change over a 1 year period to acquire the change in purpose.
<i>Future quality with offset (habitat/community) or Future value with offset (features/individuals)</i>	The predicted future quality score (habitat/community) or value (features/individuals) of the proposed offset site with the offset		
<i>Risk of loss (%) without offset (habitat/community)</i>	This describes the chance that the habitat/community on the proposed offset site will be completely lost (i.e. no longer hold any value for the protected matter of concern) over the foreseeable future without an offset	40% - The offset site is reserved for a purpose of 'gravel', therefore it is assumed that there is a reasonable risk that the reserve could be developed in accordance with the current purpose.	40% - The offset site is reserved for a purpose of 'gravel', therefore it is assumed that there is a reasonable risk that the reserve could be developed in accordance with the current purpose.
<i>Risk of loss (%) with offset (habitat/community)</i>	This describes the chance that the habitat/community on the proposed offset site will be completely lost (i.e. no longer hold any value for the protected matter of concern) over the foreseeable future with an offset	10% - It is considered that the risk of development will be reduced with the proposed change of reserve purpose to 'conservation'.	10% - It is considered that the risk of development will be reduced with the proposed change of reserve purpose to 'conservation'.
<i>Confidence in result (%) – risk of loss (habitat/community)</i>	The capacity of measures to mitigate risk of loss of the proposed offset site	90% - It is considered that there is a high level of confidence the proposed change in reserve purpose to 'conservation' will reduce the level of risk of future development.	90% - It is considered that there is a high level of confidence the proposed change in reserve purpose to 'conservation' will reduce the level of risk of future development.
<i>Confidence in result (%) – Change in quality (habitat/community) or Change in value (features/individuals)</i>	The level of certainty about the successful achievement of the proposed change in quality (habitat/community) or value (features/individuals)	90% - It is considered that the offset is not likely to result in a change in quality.	90% - It is considered that the offset is not likely to result in a change in quality.
<i>% of impact offset</i>	% of the significant residual impact that would be offset by the proposed offset (note: the offset calculations combined should equate to 100% for each residual impact)	21.41% - protection of 10.78 hectares will achieve 21.41% offset of impact to black cockatoo habitat.	78.59% - protection of 29.67 hectares will achieve 78.59% offset of impact to black cockatoo habitat.



<i>Other comments</i>	Include here any relevant additional comments (e.g. the size of offset required to offset 100% of the residual impacts)	The above considers that no intervention (rehab/reveg/weeding/etc.) activities will be undertaken at the offset site. The combination of the proposed offset sites will offset 100% of the residual impact.	The above considers that no intervention (rehab/reveg/weeding/etc.) activities will be undertaken at the offset site. The combination of the proposed offset sites will offset 100% of the residual impact.
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**Table 2: Offset associated with counterbalancing the significant residual impacts to Wheatbelt Woodlands TEC**

Field Name	Description	Reserve 8861 Justification for value used – Offset to impacts to Wheatbelt Woodlands TEC	Reserve 19021 Justification for value used – Offset to impacts to Wheatbelt Woodlands TEC
<i>IUCN Criteria</i>	The IUCN criteria for the value being impacted	6.8% - Wheatbelt Woodlands TEC is listed as Critically Endangered under the EPBC Act..	6.8% - Wheatbelt Woodlands TEC is listed as Critically Endangered under the EPBC Act..
<i>Area of impact (habitat/community) or Quantum of impact (features/individuals)</i>	The area of habitat/community impacted or number of features/individuals impacted	2 hectares of the TEC.	2 hectares of the TEC.
<i>Quality of impacted area (habitat/community)</i>	The quality score for area of habitat/community being impacted - a measure of how well a particular site supports a particular threatened species or ecological community and contributes to its ongoing viability	6 - Vegetation in very good condition. The decision report determined the vegetation within the application area ranges from excellent to degraded condition. A score of 6 has been applied to indicate that overall, the average condition of the vegetation within the application area is considered to be in very good condition.	6 - Vegetation in very good condition. The decision report determined the vegetation within the application area ranges from excellent to degraded condition. A score of 6 has been applied to indicate that overall, the average condition of the vegetation within the application area is considered to be in very good condition.
<i>Time over which loss is averted (habitat/community)</i>	This describes the timeframe over which changes in the level of risk to the proposed offset site can be considered and quantified	20 years - The proposed offset would change the purpose of the reserve to conservation in perpetuity therefore the maximum 20 years is applied.	20 years - The proposed offset would change the purpose of the reserve to conservation in perpetuity therefore the maximum 20 years is applied.

<i>Time until ecological benefit (habitat/community) or Time horizon (features/individuals)</i>	This describes the estimated time (in years) that it will take for the main benefit of the quality (habitat/community) or value (features/individuals) improvement of the proposed offset to be realised	1 - It is considered that it will take no more than 1 year to change the reserve purpose from 'gravel' to 'conservation'.	1 - It is considered that it will take no more than 1 year to change the reserve purpose from 'gravel' to 'conservation'.
<i>Start area (habitat/community) or Start value (features/individuals)</i>	The area of habitat/community or number of features/individuals proposed to offset the impacts	10.78 hectares - Area of remnant vegetation proposed to be offset that is considered suitable for use as an offset.	12.62 hectares - required to offset the residual impacts after considering the values offset from Reserve 8861.
<i>Start quality (habitat/community)</i>	The quality score for the area of habitat/community proposed as an offset - a measure of how well a particular site supports a particular threatened species or ecological community and contributes to its ongoing viability	6 - Native vegetation condition at the offset site is considered to be 'Very Good' condition. Offset site has same mapped vegetation association as found within the impact site.	8 - Native vegetation condition at the offset site is considered to be in 'Excellent' condition. Offset site has same mapped vegetation association as found within the impact site.
<i>Future quality without offset (habitat/community) or Future value without offset (features/individuals)</i>	The predicted future quality score (habitat/community) or value (features/individuals) of the proposed offset site without the offset	6 - The quality is considered unlikely to change over a 1 year period to acquire the change in purpose.	8 - The quality is considered unlikely to change over a 1 year period to acquire the change in purpose.
<i>Future quality with offset (habitat/community) or Future value with offset (features/individuals)</i>	The predicted future quality score (habitat/community) or value (features/individuals) of the proposed offset site with the offset		
<i>Risk of loss (%) without offset (habitat/community)</i>	This describes the chance that the habitat/community on the proposed offset site will be completely lost (i.e. no longer hold any value for the protected matter of concern) over the foreseeable future without an offset	40% - The offset site is reserved for a purpose of 'gravel', therefore it is assumed that there is a reasonable risk that the reserve could be developed in accordance with the current purpose.	40% - The offset site is reserved for a purpose of 'gravel', therefore it is assumed that there is a reasonable risk that the reserve could be developed in accordance with the current purpose.
<i>Risk of loss (%) with offset (habitat/community)</i>	This describes the chance that the habitat/community on the proposed offset site will be completely lost (i.e. no longer hold any value for the protected matter of concern) over the foreseeable future with an offset	10% - It is considered that the risk of development will be reduced with the proposed change of reserve purpose to 'conservation'.	10% - It is considered that the risk of development will be reduced with the proposed change of reserve purpose to 'conservation'.

<i>Confidence in result (%) – risk of loss (habitat/community)</i>	The capacity of measures to mitigate risk of loss of the proposed offset site	90% - It is considered that there is a high level of confidence the proposed change in reserve purpose to 'conservation' will reduce the level of risk of future development.	90% - It is considered that there is a high level of confidence the proposed change in reserve purpose to 'conservation' will reduce the level of risk of future development.
<i>Confidence in result (%) – Change in quality (habitat/community) or Change in value (features/individuals)</i>	The level of certainty about the successful achievement of the proposed change in quality (habitat/community) or value (features/individuals)	90% - It is considered that the offset is not likely to result in a change in quality.	90% - It is considered that the offset is not likely to result in a change in quality.
<i>% of impact offset</i>	% of the significant residual impact that would be offset by the proposed offset (note: the offset calculations combined should equate to 100% for each residual impact)	39.04% - protection of 10.78 hectares will achieve 39.04% offset of impact to the TEC.	60.96% - protection of 12.624 hectares will achieve 60.96% offset of impact to the TEC.
<i>Other comments</i>	Include here any relevant additional comments (e.g. the size of offset required to offset 100% of the residual impacts)	The above considers that no intervention (rehab/reveg/weeding/etc.) activities will be undertaken at the offset site. The combination of the proposed offset sites will offset 100% of the residual impact.	The above considers that no intervention (rehab/reveg/weeding/etc.) activities will be undertaken at the offset site. The combination of the proposed offset sites will offset 100% of the residual impact.

**Table 3: Offset associated with counterbalancing the significant residual impacts to significant remnant of vegetation within a highly cleared landscape**

<b>Field Name</b>	<b>Description</b>	<b>Reserve 8861 Justification for value used – Offset to impacts to vegetation within an extensively cleared landscape (BVA 1023)</b>	<b>Reserve 19021 Justification for value used – Offset to impacts to vegetation within an extensively cleared landscape (BVA 1023)</b>
<i>IUCN Criteria</i>	The IUCN criteria for the value being impacted	0% Beard vegetation associations and significant remnant vegetation within a highly cleared area does not have IUCN criteria.	0% Beard vegetation associations and significant remnant vegetation within a highly cleared area does not have IUCN criteria.
<i>Area of impact (habitat/community) or Quantum of impact (features/individuals)</i>	The area of habitat/community impacted or number of features/individuals impacted	16.848 hectares of vegetation (BVA 1023) significant within an extensively cleared landscape.	16.848 hectares of vegetation (BVA 1023) significant within an extensively cleared landscape.

<i>Quality of impacted area (habitat/community)</i>	The quality score for area of habitat/community being impacted - a measure of how well a particular site supports a particular threatened species or ecological community and contributes to its ongoing viability	5 - Vegetation in good condition. The decision report determined the vegetation within the application area ranges from excellent to degraded condition. A score of 5 has been applied to indicate that overall, the average condition of the vegetation within the application area is considered to be in good condition.	5 - Vegetation in good condition. The decision report determined the vegetation within the application area ranges from excellent to degraded condition. A score of 5 has been applied to indicate that overall, the average condition of the vegetation within the application area is considered to be in good condition.
<i>Time over which loss is averted (habitat/community)</i>	This describes the timeframe over which changes in the level of risk to the proposed offset site can be considered and quantified	20 years - The proposed offset would change the purpose of the reserve to conservation in perpetuity therefore the maximum 20 years is applied.	20 years - The proposed offset would change the purpose of the reserve to conservation in perpetuity therefore the maximum 20 years is applied.
<i>Time until ecological benefit (habitat/community) or Time horizon (features/individuals)</i>	This describes the estimated time (in years) that it will take for the main benefit of the quality (habitat/community) or value (features/individuals) improvement of the proposed offset to be realised	1 - It is considered that it will take no more than 1 year to change the reserve purpose from 'gravel' to 'conservation'.	1 - It is considered that it will take no more than 1 year to change the reserve purpose from 'gravel' to 'conservation'.
<i>Start area (habitat/community) or Start value (features/individuals)</i>	The area of habitat/community or number of features/individuals proposed to offset the impacts	10.78 hectares - Area of remnant vegetation proposed to be offset that is considered suitable for use as an offset.	30.9 hectares - Area of remnant vegetation proposed to be offset that is considered suitable for use as an offset.
<i>Start quality (habitat/community)</i>	The quality score for the area of habitat/community proposed as an offset - a measure of how well a particular site supports a particular threatened species or ecological community and contributes to its ongoing viability	6 - Native vegetation condition at the offset site is considered to be 'Very Good' condition. Offset site has same mapped vegetation association as found within the impact site.	8 - Native vegetation condition at the offset site is considered to be 'Excellent' condition. Offset site has same mapped vegetation association as found within the impact site.
<i>Future quality without offset (habitat/community) or Future value without offset (features/individuals)</i>	The predicted future quality score (habitat/community) or value (features/individuals) of the proposed offset site without the offset	6 - The quality is considered unlikely to change over a 1 year period to acquire the change in purpose.	8 - The quality is considered unlikely to change over a 1 year period to acquire the change in purpose.
<i>Future quality with offset (habitat/community) or Future value with offset (features/individuals)</i>	The predicted future quality score (habitat/community) or value (features/individuals) of the proposed offset site with the offset		

<i>Risk of loss (%) without offset (habitat/community)</i>	This describes the chance that the habitat/community on the proposed offset site will be completely lost (i.e. no longer hold any value for the protected matter of concern) over the foreseeable future without an offset	40% - The offset site is reserved for a purpose of 'gravel', therefore it is assumed that there is a reasonable risk that the reserve could be developed in accordance with the current purpose.	40% - The offset site is reserved for a purpose of 'gravel', therefore it is assumed that there is a reasonable risk that the reserve could be developed in accordance with the current purpose.
<i>Risk of loss (%) with offset (habitat/community)</i>	This describes the chance that the habitat/community on the proposed offset site will be completely lost (i.e. no longer hold any value for the protected matter of concern) over the foreseeable future with an offset	10% - It is considered that the risk of development will be reduced with the proposed change of reserve purpose to 'conservation'.	10% - It is considered that the risk of development will be reduced with the proposed change of reserve purpose to 'conservation'.
<i>Confidence in result (%) – risk of loss (habitat/community)</i>	The capacity of measures to mitigate risk of loss of the proposed offset site	90% - It is considered that there is a high level of confidence the proposed change in reserve purpose to 'conservation' will reduce the level of risk of future development.	90% - It is considered that there is a high level of confidence the proposed change in reserve purpose to 'conservation' will reduce the level of risk of future development.
<i>Confidence in result (%) – Change in quality (habitat/community) or Change in value (features/individuals)</i>	The level of certainty about the successful achievement of the proposed change in quality (habitat/community) or value (features/individuals)	90% - It is considered that the offset is not likely to result in a change in quality.	90% - It is considered that the offset is not likely to result in a change in quality.
<i>% of impact offset</i>	% of the significant residual impact that would be offset by the proposed offset (note: the offset calculations combined should equate to 100% for each residual impact)	20.73% - protection of 10.78 hectares will achieve 21.41% offset of impact to the significant remnant.	79.27% - protection of 30.9 hectares will achieve 79.27% offset of impact to the significant remnant.
<i>Other comments</i>	Include here any relevant additional comments (e.g. the size of offset required to offset 100% of the residual impacts)	The above considers that no intervention (rehab/reveg/weeding/etc.) activities will be undertaken at the offset site. The combination of the proposed offset sites will offset 100% of the residual impact.	The above considers that no intervention (rehab/reveg/weeding/etc.) activities will be undertaken at the offset site. The combination of the proposed offset sites will offset 100% of the residual impact.