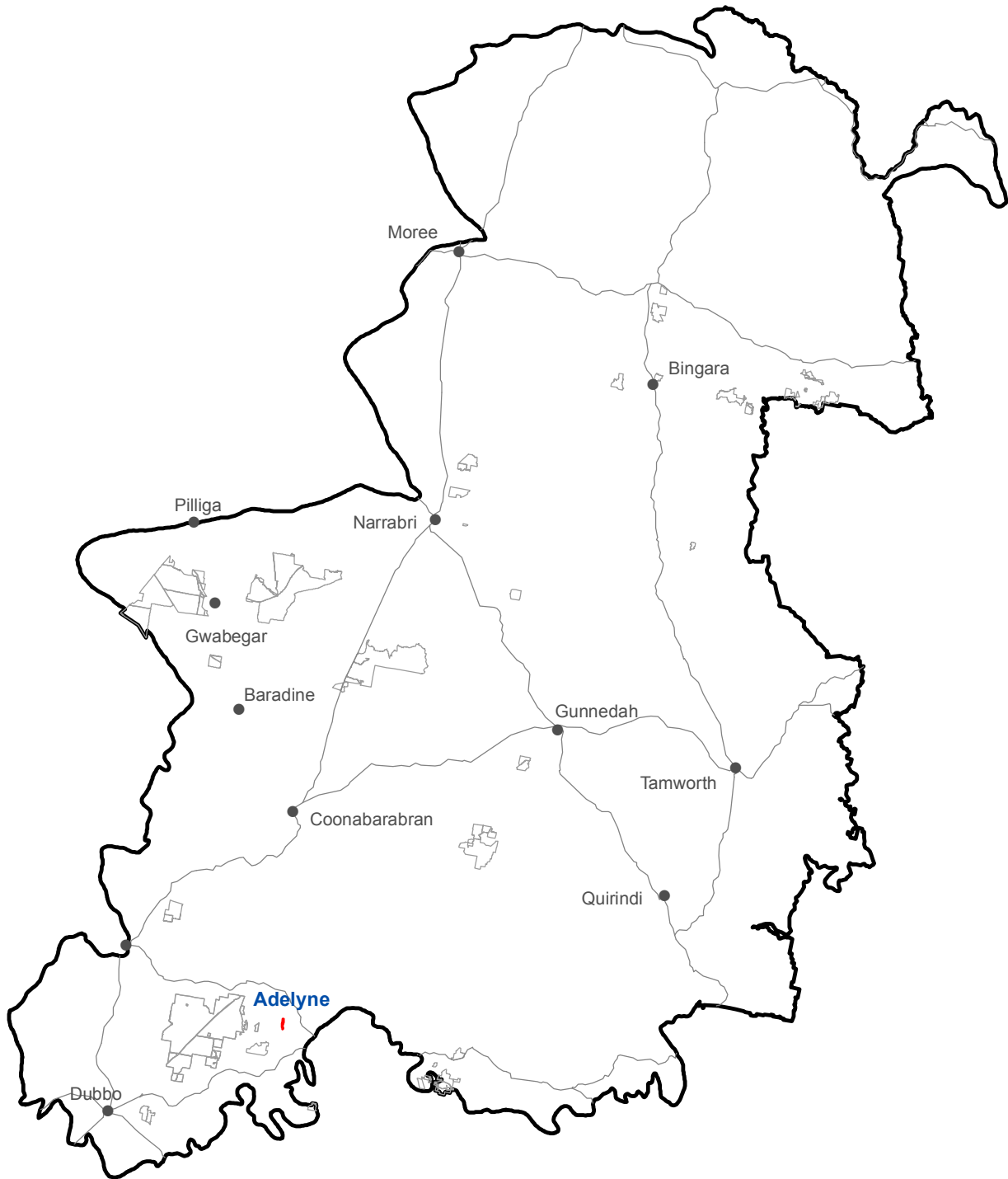


Adelyne State Conservation Area (148 hectares)

Location



- Adelyne State Conservation Area
- Other Zone 3 State Conservation Areas

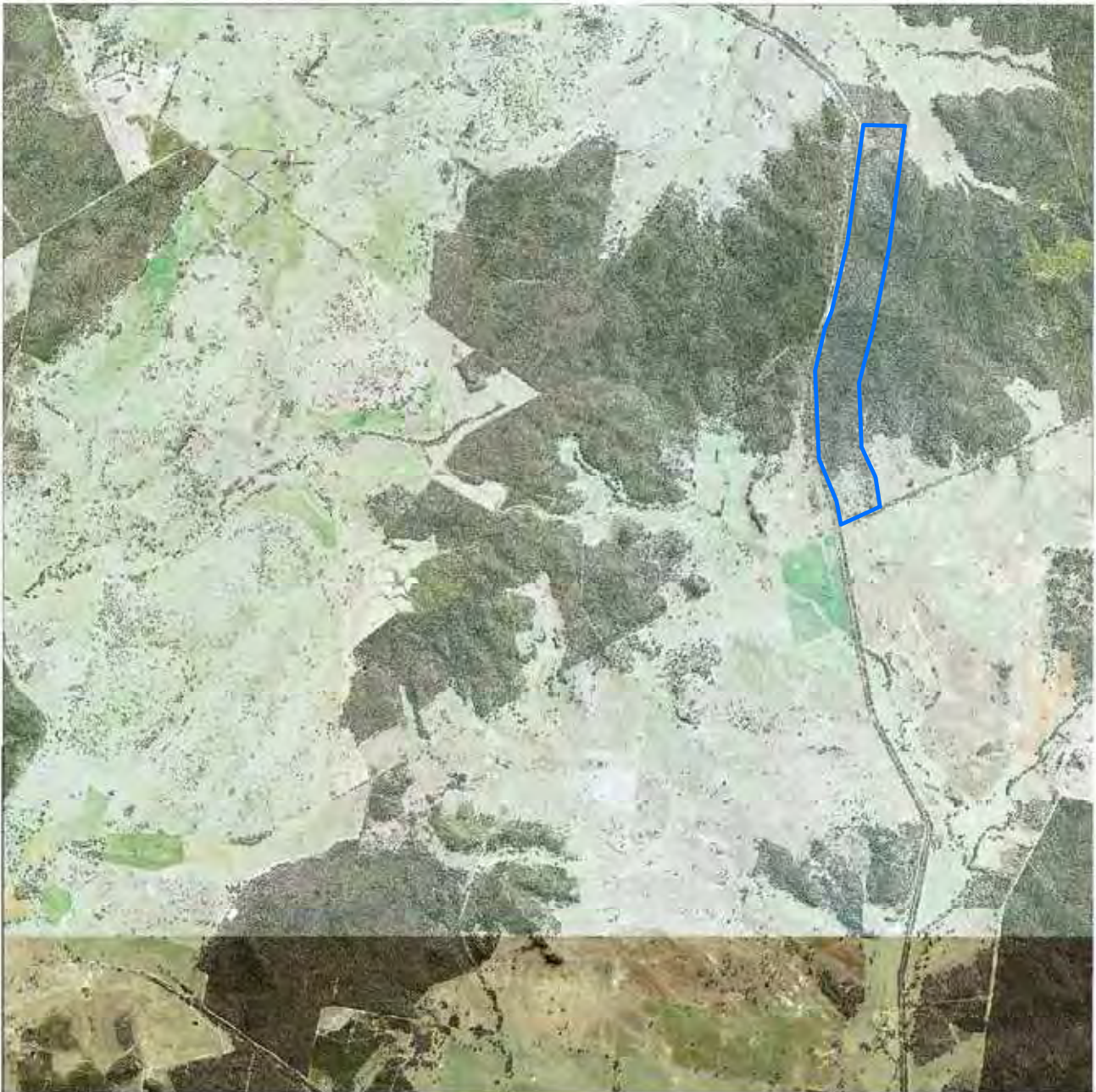
Spatial data courtesy of Office of Environment and Heritage.




0 Km 60

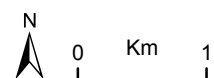
Adelyne State Conservation Area

Aerial



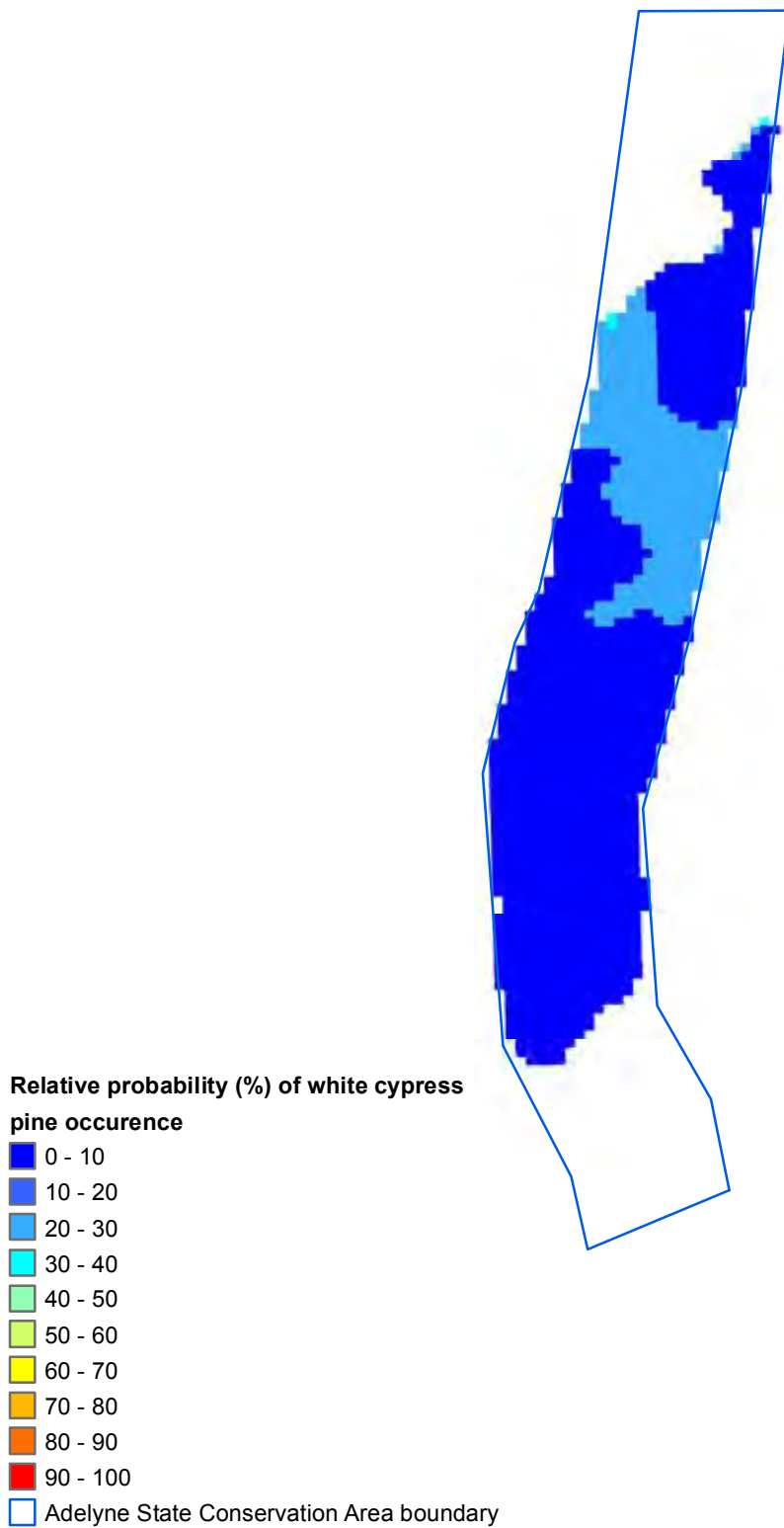
 Adelyne State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Adelyne State Conservation Area

Predicted location - white cypress pine

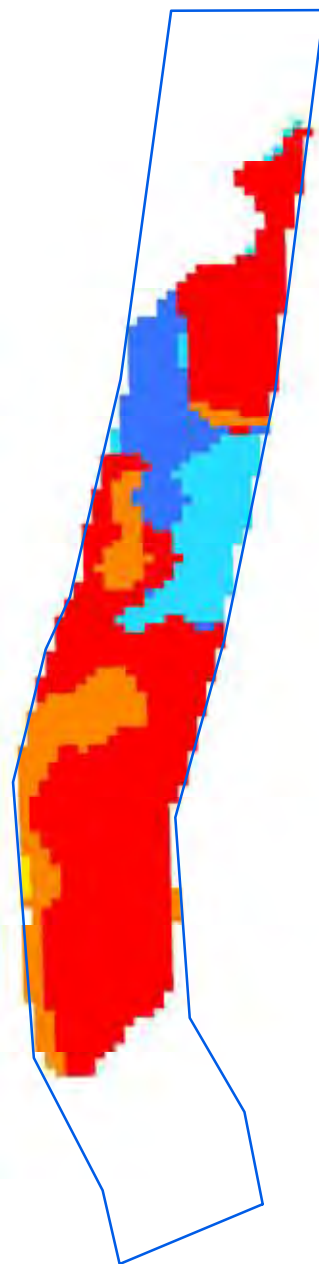


Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Adelyne State Conservation Area

Predicted location - black cypress pine



Relative probability (%) of black cypress pine occurrence

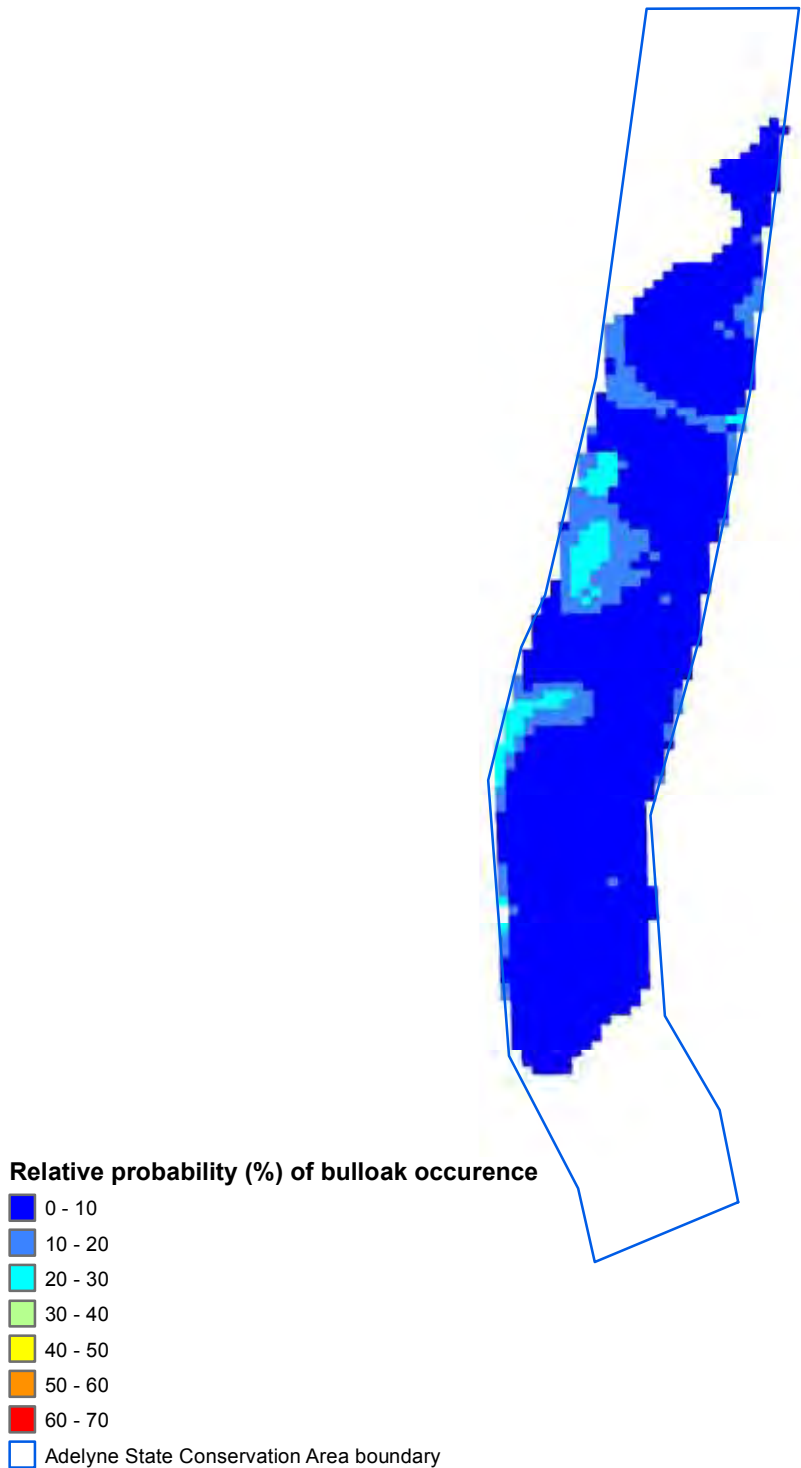
- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- Adelyne State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.

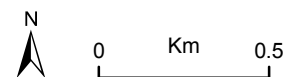


Adelyne State Conservation Area

Predicted location - bulloak



Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Adelyne State Conservation Area

Continuous canopy density surface - cypress pine

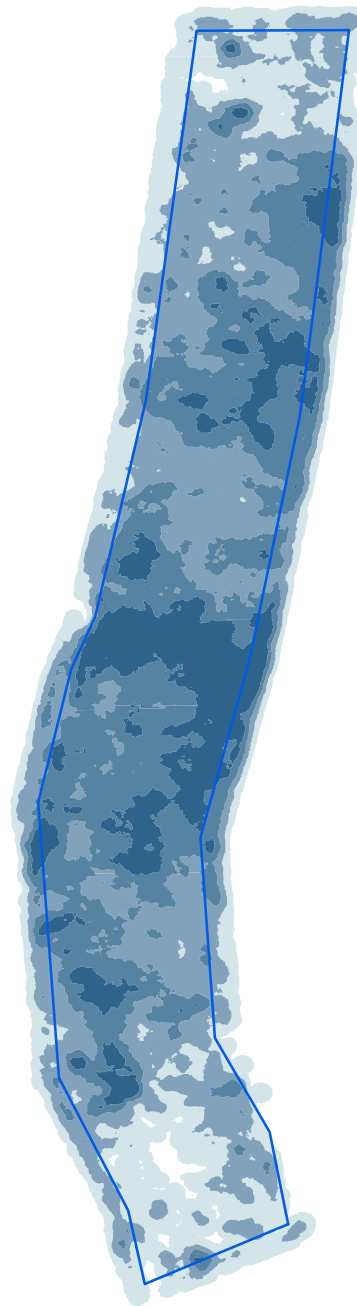


ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Adelyne State Conservation Area

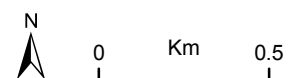
Discrete canopy density classes - cypress pine



Canopy density classes

- Class 0 (little or no cypress pine detected)
- Density slice range 1 to 10
- Density slice range 10 to 20
- Density slice range 20 to 30
- Density slice range 30 to 100
- Adelyne State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Adelyne State Conservation Area

Summary statistics - spatial analysis

| Area of cypress canopy classes (excludes areas affected by wildfire since 2009) | |
|---|------------------|
| Class | Total (hectares) |
| Class 0 (little or no cypress detected) | 4 |
| Class 1 (1-10 percent) | 45 |
| Class 2 (11-20 percent) | 67 |
| Class 3 (21-30 percent) | 59 |
| Class 4 (>31 percent) | 27 |

| Issues and confidence levels for ADS40 spatial products | | |
|---|---|-------------------|
| ADS40 image quality | Issues | Confidence levels |
| High | Image classification and mapping includes other species | Lower |

Adelyne State Conservation Area

Summary statistics - general

| Lindsay types | Area (hectares) | Proportion of total (%) |
|---------------|-----------------|-------------------------|
| Not Typed | 145 | - |

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|--|--------------------------|-----------------------|
| VCA 281: Rough-Barked Apple - red gum - Yellow Box woodland on alluvial clay to loam soils on valley flats in the northern NSW South West Cypress and Brigalow Belt South Bioregions | yes | yes |
| VCA 440: Red Stringybark - Narrow-leaved Ironbark - Black Cypress Pine - hill red gum sandstone woodland of southern NSW Brigalow Belt South Bioregion | - | - |

¹ NSW *Threatened Species Conservation Act 1995*

² Australian Government *Environment Protection and Biodiversity Conservation Act 1999*

| Native species recorded | | Number | |
|-------------------------|-------------|--------------------------|-----------------------|
| Flora | | - | |
| Fauna | | - | |
| Threatened species | | | |
| Scientific name | Common name | NSW TSC Act ¹ | EPBC Act ² |
| Flora | | | |
| - | - | - | - |
| Fauna | | | |
| - | - | - | - |

| Cultural heritage - Aboriginal and non-Aboriginal | Number of sites |
|---|--------------------------|
| AHIMS registered sites | 0 |
| Heritage items or places of historic significance | no information available |

| Current management plans | Status |
|-----------------------------------|--------------------------------|
| Plan of management | no |
| Fire management strategy | June 2012 |
| Regional pest management strategy | Northern plains region 2012-17 |

| Fire history | Prescribed burn (hectares) | Wildfire (hectares) |
|-------------------|----------------------------|---------------------|
| 2008-09 - 2012-13 | - | - |

| Mining | Number of titles |
|-------------|---------------------|
| Exploration | 1 coal, 1 petroleum |
| Application | none |

| Apiarist sites |
|----------------|
| None |

Beni State Conservation Area (1,849 hectares)

Location



- Beni State Conservation Area
- Other Zone 3 State Conservation Areas

Spatial data courtesy of Office of Environment and Heritage.



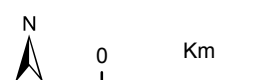
Beni State Conservation Area

Aerial



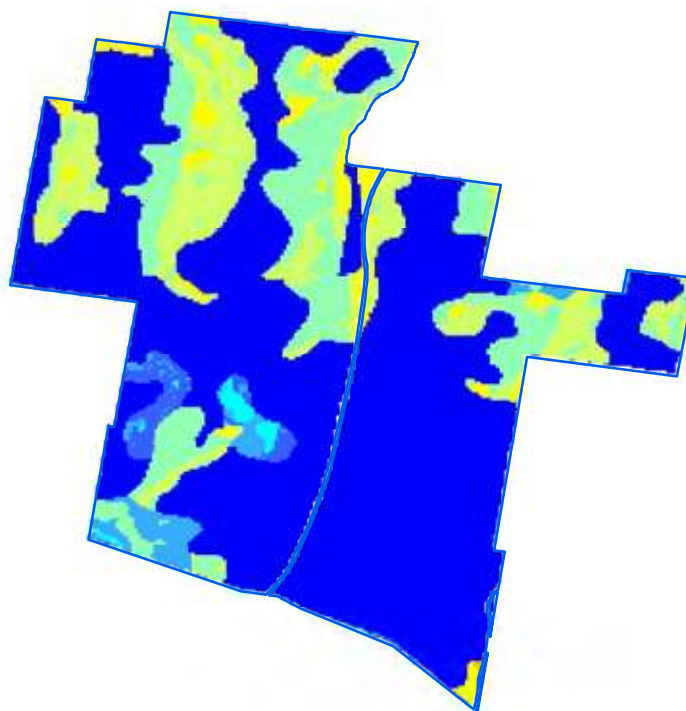
 Beni State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage
Spatial analysis by Remote Census Pty Ltd (2014)



Beni State Conservation Area

Predicted location - white cypress pine



Relative probability (%) of white cypress pine occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- 80 - 90
- 90 - 100

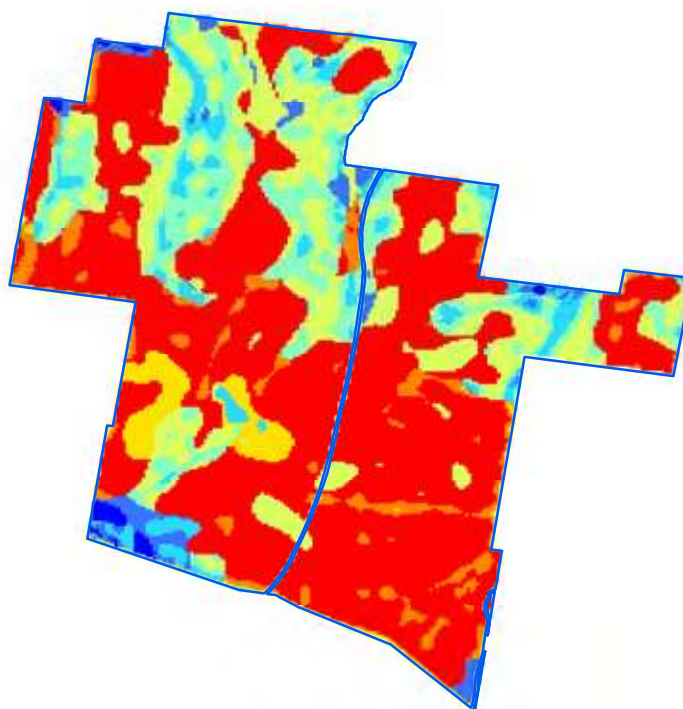
Beni State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.












Beni State Conservation Area

Predicted location - black cypress pine



Relative probability (%) of black cypress pine occurrence

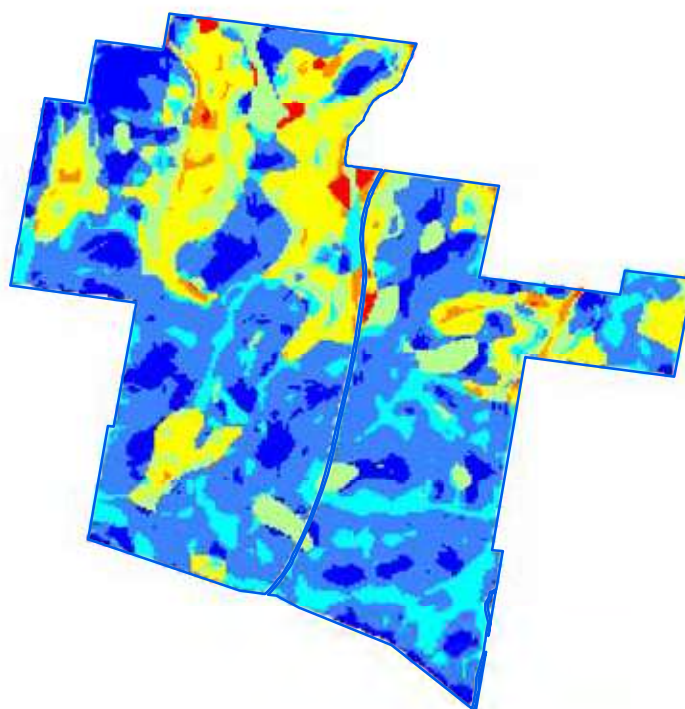
-  0 - 10
-  10 - 20
-  20 - 30
-  30 - 40
-  40 - 50
-  50 - 60
-  60 - 70
-  70 - 80
-  Beni State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Beni State Conservation Area

Predicted location - bulloak



Relative probability (%) of bulloak occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- Beni State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Beni State Conservation Area

Continuous canopy density surface - cypress pine

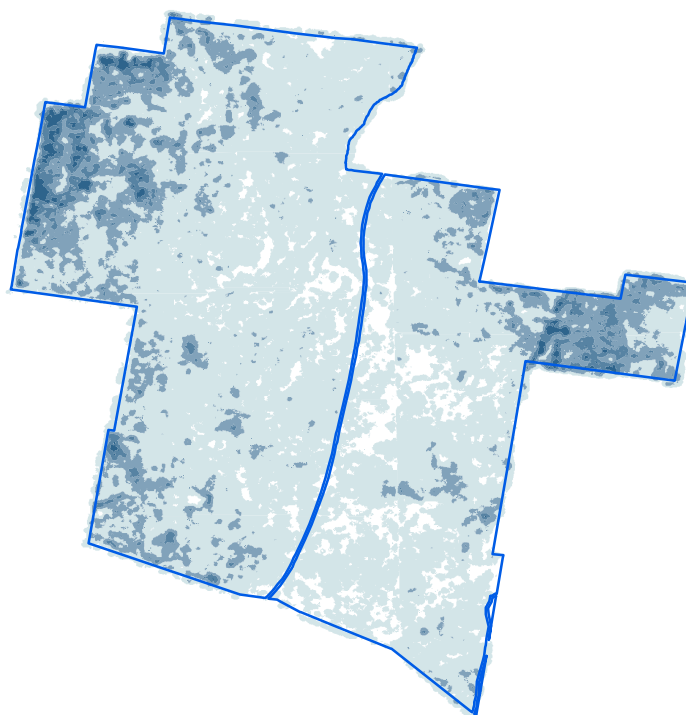


ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Beni State Conservation Area

Discrete canopy density classes - cypress pine



Canopy density classes

- Class 0 (little or no cypress pine detected)
- Density slice range 1 to 10
- Density slice range 10 to 20
- Density slice range 20 to 30
- Density slice range 30 to 100
- Beni State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Beni State Conservation Area

Summary statistics - spatial analysis

| Area of cypress canopy classes (excludes areas affected by wildfire since 2009) | |
|---|------------------|
| Class | Total (hectares) |
| Class 0 (little or no cypress detected) | 198 |
| Class 1 (1-10 percent) | 1,345 |
| Class 2 (11-20 percent) | 301 |
| Class 3 (21-30 percent) | 70 |
| Class 4 (>31 percent) | 17 |

| Issues and confidence levels for ADS40 spatial products | | |
|---|--------|-------------------|
| ADS40 image quality | Issues | Confidence levels |
| High | - | Higher |

Beni State Conservation Area

Summary statistics - general

| Lindsay types | Area (hectares) | Proportion of total (%) |
|--|-----------------|-------------------------|
| Black Pine - Narrowleaf Ironbark | 458 | 25 |
| Narrowleaf Ironbark - Black Pine | 126 | 7 |
| Narrowleaf Ironbark - Cypress Pine | 510 | 28 |
| White Box - White Cypress Pine (Lindsay Types) | 6 | <1 |
| White Cypress Pine - Red Gum | 7 | <1 |
| White Cypress Pine - Narrowleaf Ironbark | 656 | 36 |
| White Cypress Pine - Grey Box (Lindsay Types) | 34 | 2 |
| Not typed | 30 | 2 |

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|--|--------------------------|-----------------------|
| VCA 470: Mugga Ironbark - Narrow-leaved Ironbark - Buloke - Black Cypress Pine shrub grass open forest in the Goonoo forests and surrounding region, southern Brigalow Belt South Bioregion | - | - |
| VCA 468: Narrow-leaved Ironbark - Black Cypress Pine +/- Blakely's Red Gum shrubby open forest on sandstone low hills in the southern Brigalow Belt South Bioregion (including Goonoo) | - | - |
| VCA 473: Red gum - Rough-barked Apple - Narrow-leaved Ironbark - cypress pine grassy open forest on flats and drainage lines in the Goonoo and surrounding forests, southern Brigalow Belt South Bioregion | - | - |
| VCA 435: White Box - White Cypress Pine shrub grass hills woodland in the Brigalow Belt South and Nandewar Bioregions | yes | yes |
| VCA 469: White Cypress Pine - Narrow-leaved Ironbark - Buloke grassy open forest of the Dubbo region, southern Brigalow Belt South Bioregion | - | - |

¹ NSW *Threatened Species Conservation Act 1995*

² Australian Government *Environment Protection and Biodiversity Conservation Act 1999*

| Native species recorded | | Number | |
|---|---|--------------------------|-----------------------|
| Flora | | 174 | |
| Fauna | | 76 | |
| Threatened species | | NSW TSC Act ¹ | EPBC Act ² |
| Scientific name | Common name | | |
| Flora | | | |
| - | - | - | - |
| Fauna | | | |
| <i>Chthonicola sagittata</i> | Speckled warbler | V | - |
| <i>Pomatostomus temporalis temporalis</i> | Grey-crowned babbler (eastern subspecies) | V | - |
| <i>Daphoenositta chrysoptera</i> | Varied sittella | V | - |
| <i>Petroica boodang</i> | Scarlet robin | V | - |
| <i>Petaurus norfolcensis</i> | Squirrel glider | V | - |
| <i>Lophoictinia isura</i> | Square-tailed kite | V | - |

Beni State Conservation Area

Summary statistics - general

| Cultural heritage - Aboriginal and non-Aboriginal | Number of sites |
|---|-----------------|
| AHIMS registered sites | 3 |
| Heritage items or places of historic significance | 3 |

| Current management plans | Status |
|-----------------------------------|--------------------------------|
| Plan of management | no |
| Fire management strategy | June 2009 |
| Regional pest management strategy | Northern plains region 2012-17 |

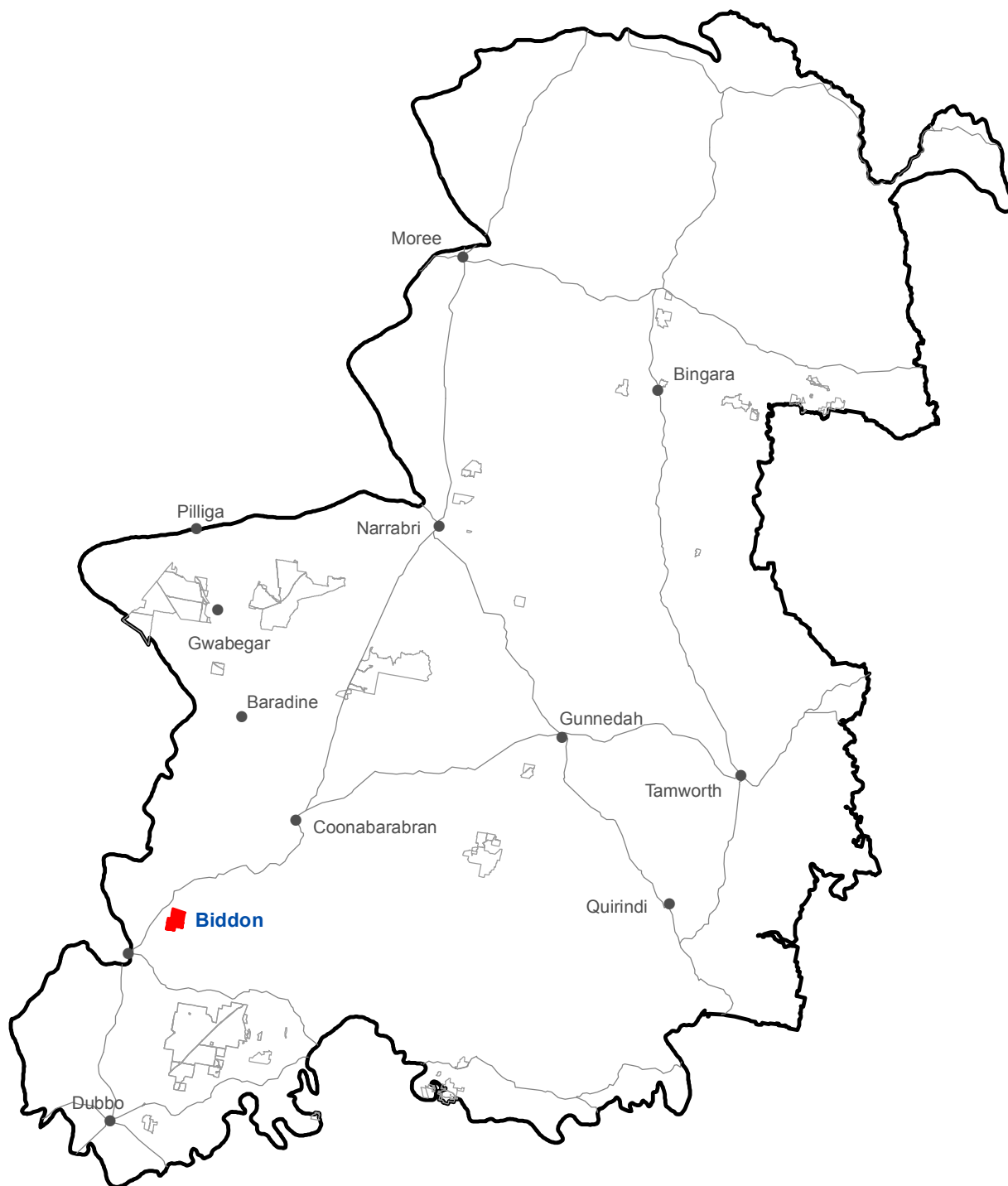
| Fire history | Prescribed burn (hectares) | Wildfire (hectares) |
|--------------|----------------------------|---------------------|
| 2010-11 | 9 | - |
| 2012-13 | 26 | - |


| Mining | Number of titles |
|-------------|------------------|
| Exploration | none |
| Application | 1 petroleum |

| Apiarist sites |
|----------------|
| None |

Biddon State Conservation Area (3,352 hectares)

Location



-  Biddon State Conservation Area
-  Other Zone 3 State Conservation Areas


Spatial data courtesy of Office of Environment and Heritage.



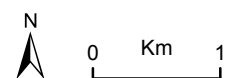
Biddon State Conservation Area

Aerial



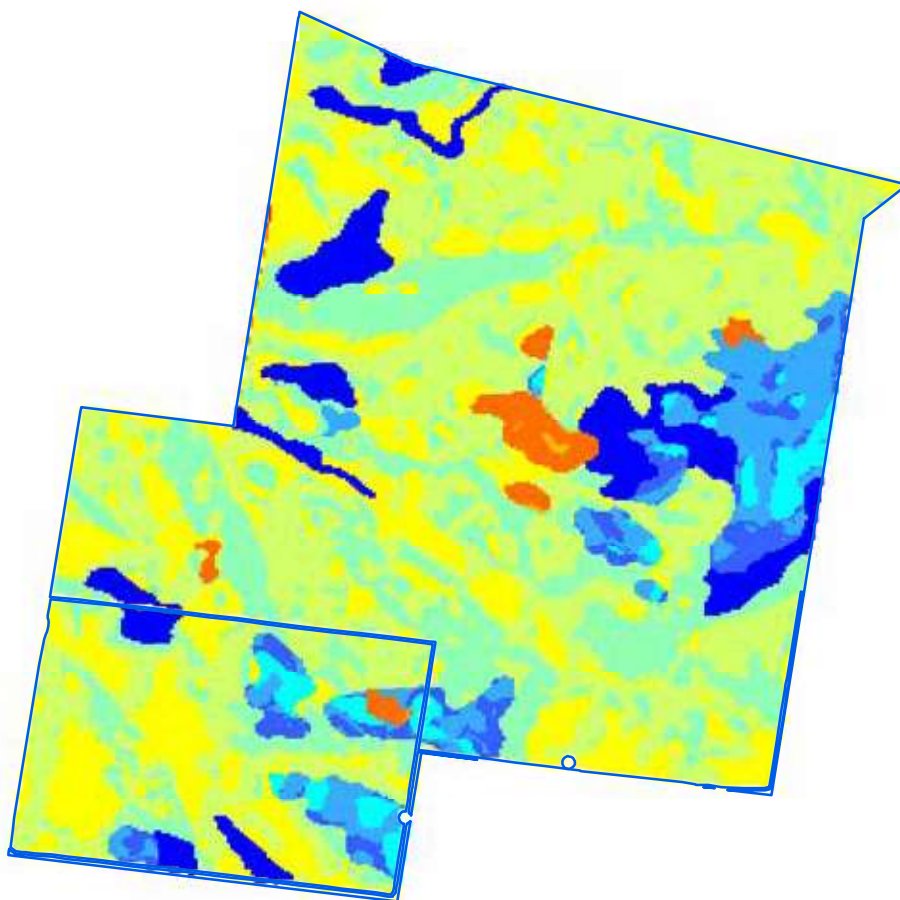
 Biddon State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Biddon State Conservation Area

Predicted location - white cypress pine

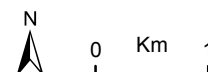


Relative probability (%) of white cypress pine occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- 80 - 90
- 90 - 100

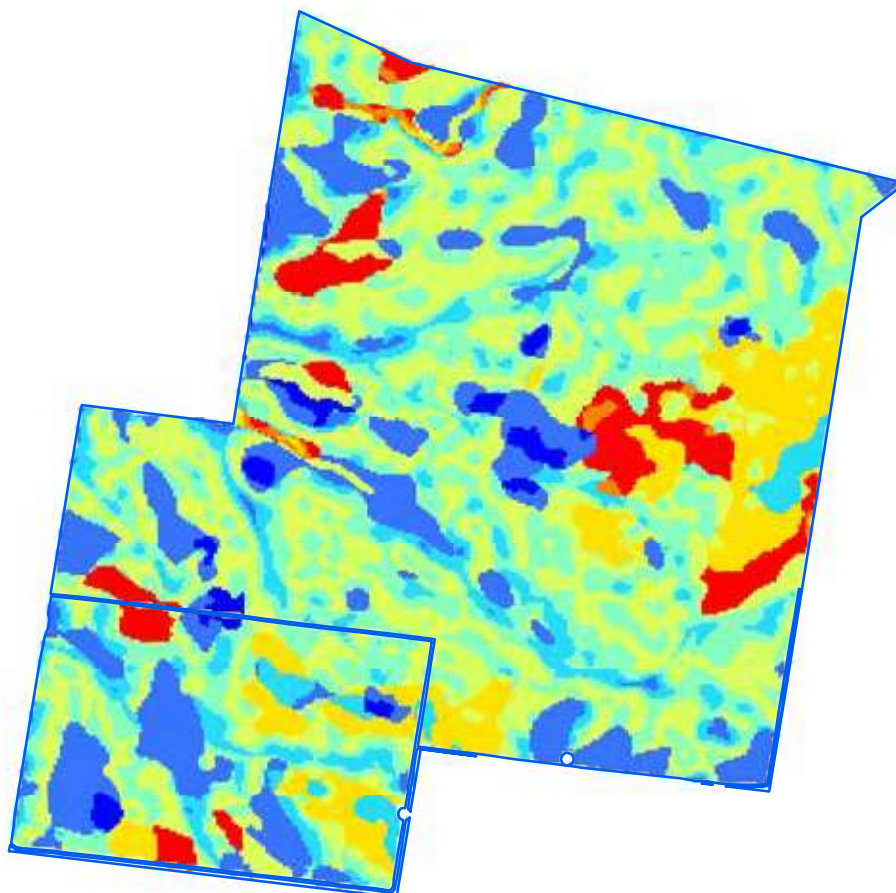
□ Biddon State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Biddon State Conservation Area

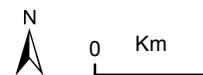
Predicted location - black cypress pine



Relative probability (%) of black cypress pine occurrence

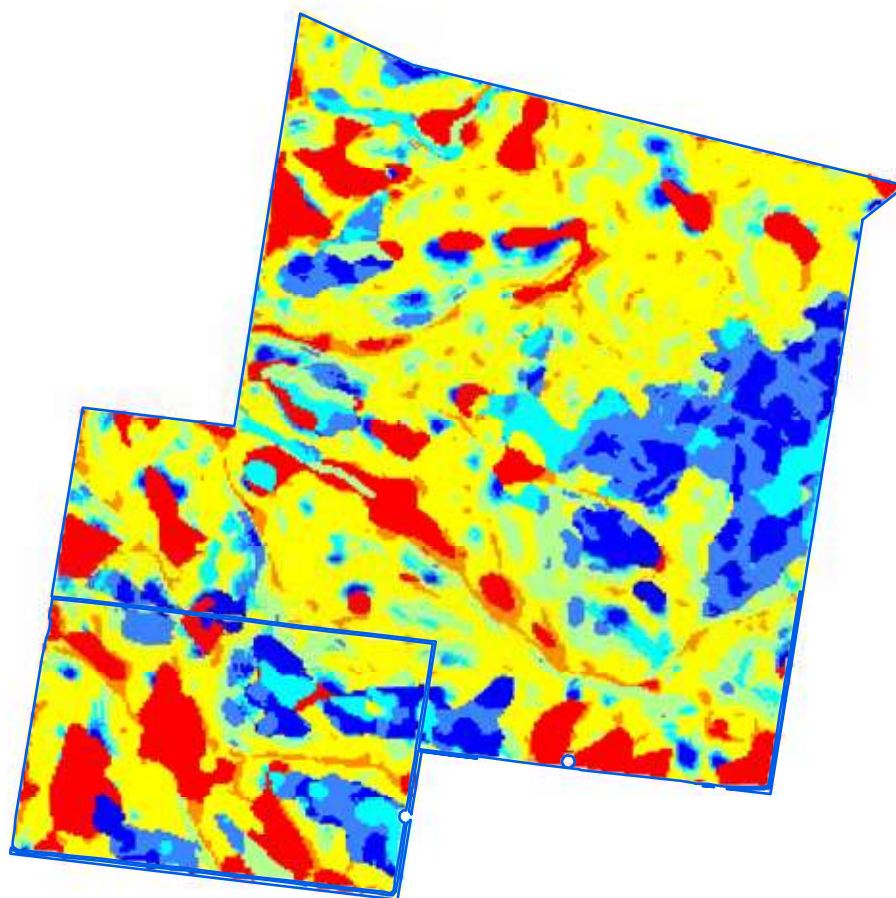
- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- Biddon State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.

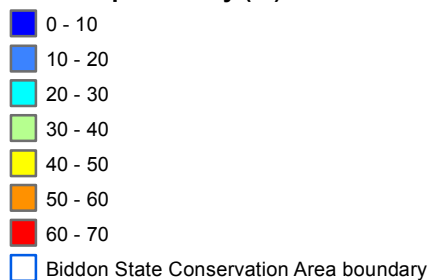


Biddon State Conservation Area

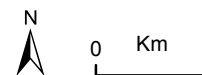
Predicted location - bulloak



Relative probability (%) of bulloak occurrence

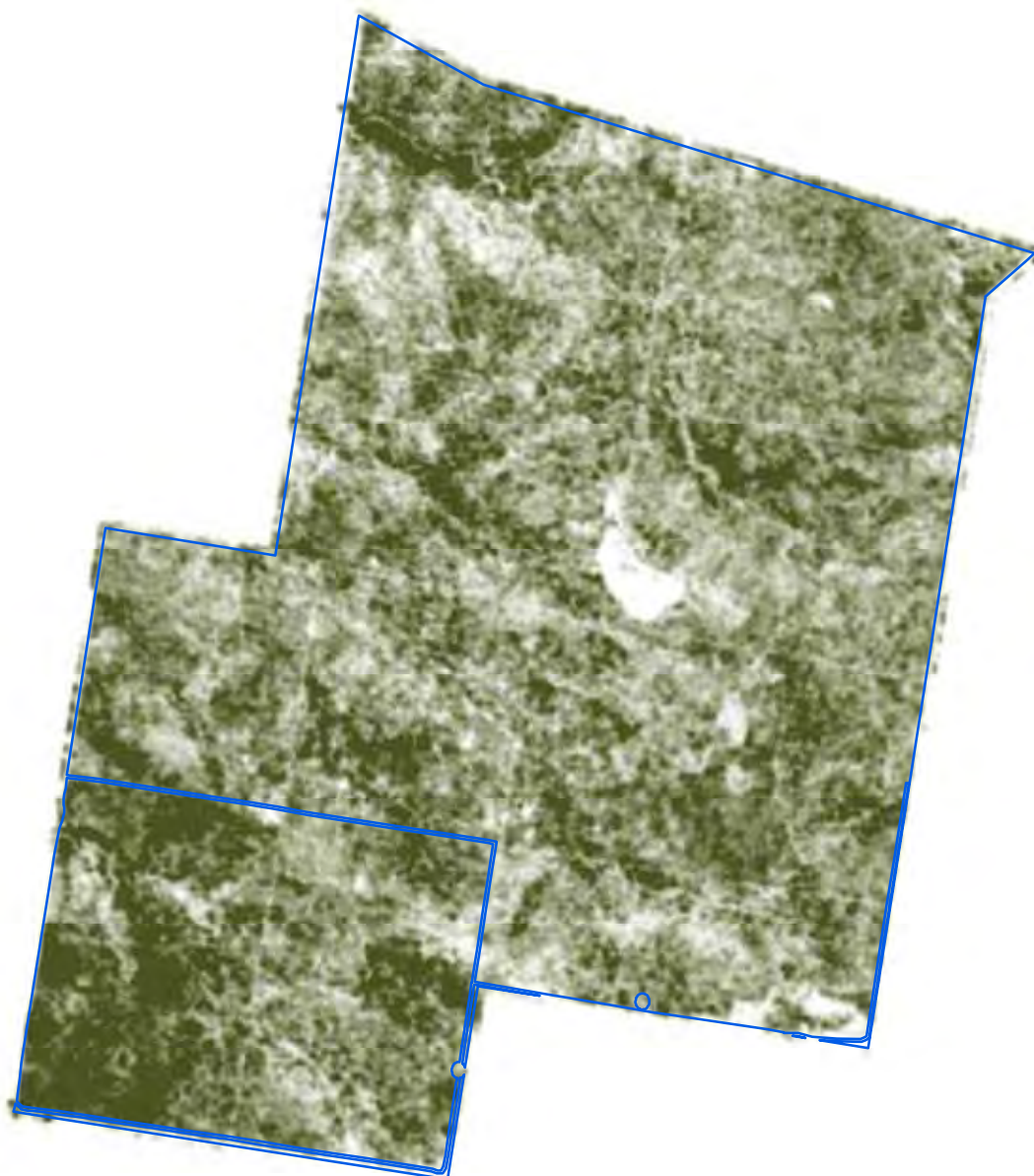




Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Biddon State Conservation Area

Continuous canopy density surface - cypress pine



 More dense canopy
 Less dense canopy

 Biddon State Conservation Area boundary

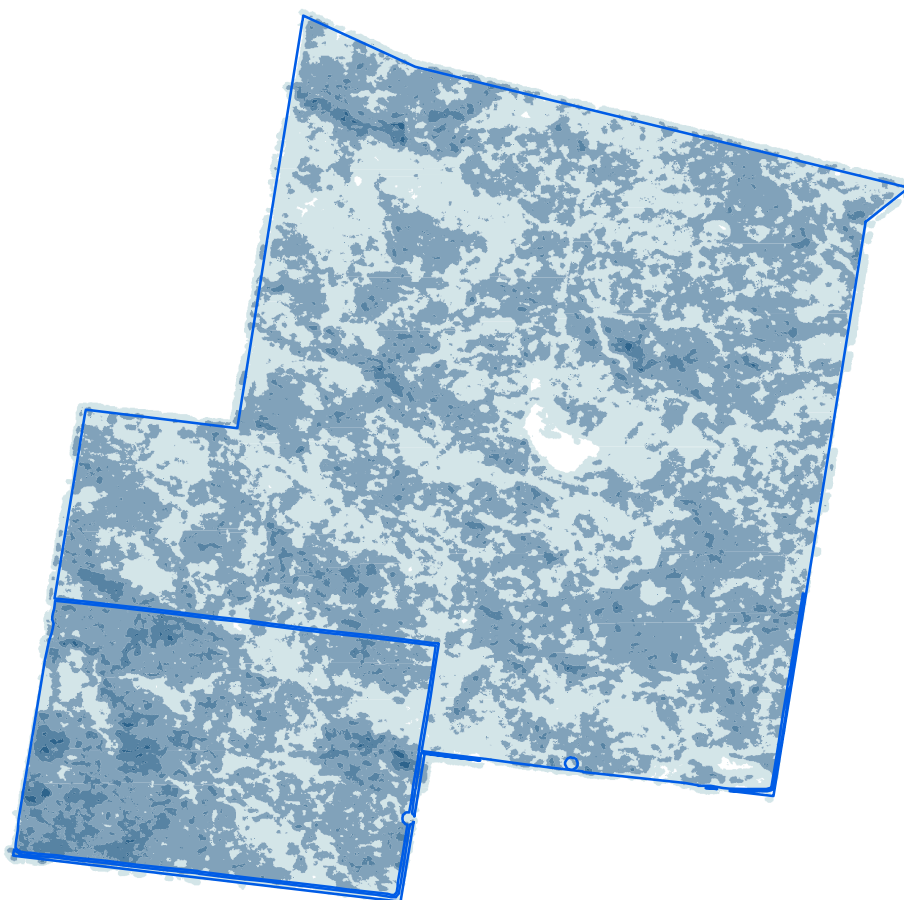
ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



0 Km 1

Biddon State Conservation Area

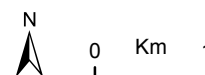
Discrete canopy density classes - cypress pine



Canopy density classes

- Class 0 (little or no cypress pine detected)
- Density slice range 1 to 10
- Density slice range 10 to 20
- Density slice range 20 to 30
- Density slice range 30 to 100
- Biddon State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Biddon State Conservation Area

Summary statistics - spatial analysis

| Area of cypress canopy classes (excludes areas affected by wildfire since 2009) | |
|---|------------------|
| Class | Total (hectares) |
| Class 0 (little or no cypress detected) | 48 |
| Class 1 (1-10 percent) | 1,438 |
| Class 2 (11-20 percent) | 1,786 |
| Class 3 (21-30 percent) | 207 |
| Class 4 (>31 percent) | 7 |

| Issues and confidence levels for ADS40 spatial products | | |
|---|--------|-------------------|
| ADS40 image quality | Issues | Confidence levels |
| High | - | Higher |

Biddon State Conservation Area

Summary statistics - general

| Lindsay types | Area (hectares) | Proportion of total (%) |
|---|-----------------|-------------------------|
| Red Gum - Roughbark Apple - White Cypress Pine (Lindsay Types) | 4 | <1 |
| Red Gum - Narrowleaf Ironbark - White Cypress Pine (Lindsay Types) | 120 | 4 |
| Red Gum - Narrowleaf Ironbark - Cypress Pine | 7 | <1 |
| Broom (<i>Melaleuca uncinata</i>) | 62 | 2 |
| Narrowleaf Ironbark (Lindsay Types) | 26 | 1 |
| Narrowleaf Ironbark - Forest Oak - White Cypress Pine (Lindsay Types) | 2,153 | 65 |
| Mallee (Lindsay Types) | 2 | <1 |
| Broadleaf Ironbark - Red Gum | 22 | 1 |
| Broadleaf Ironbark - Black Pine | 201 | 6 |
| White Cypress Pine - Red Gum - Roughbark Apple (Lindsay Types) | 5 | <1 |
| White Cypress Pine - Narrowleaf Ironbark - Red Gum (Lindsay Types) | 3 | <1 |
| White Cypress Pine - Narrowleaf Ironbark - Forest Oak (Lindsay Types) | 674 | 20 |
| Pilliga Box - White Cypress Pine (Lindsay Types) | 29 | 1 |
| White Cypress Pine - Pilliga Box (Lindsay Types) | 15 | <1 |

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|--|--------------------------|-----------------------|
| VCA 467: Blue-leaved Ironbark - Black Cypress Pine shrubby sandstone open forest in the southern BBS Bioregion (including Goonoo) | - | - |
| VCA 141: Broombush - wattle very tall shrubland of the Pilliga to Goonoo regions, Brigalow Belt South Bioregion | - | - |
| VCA 256: Green Mallee tall mallee woodland on rises in the Pilliga - Goonoo regions, southern BBS Bioregion | - | - |
| VCA 470: Mugga Ironbark - Narrow-leaved Ironbark - Buloke - Black Cypress Pine shrub grass open forest in the Goonoo forests and surrounding region, southern BBS Bioregion | - | - |
| VCA 468: Narrow-leaved Ironbark - Black Cypress Pine +/- Blakely's Red Gum shrubby open forest on sandstone low hills in the southern BBS Bioregion (including Goonoo) | - | - |
| VCA 88: Pilliga Box - White Cypress Pine - Buloke shrubby woodland in the Brigalow Belt South Bioregion | - | - |
| VCA 473: Red gum - Rough-barked Apple - Narrow-leaved Ironbark - cypress pine grassy open forest on flats and drainage lines in the Goonoo and surrounding forests, southern BBS Bioregion | - | - |
| VCA 425: Spur-wing Wattle heath on sandstone substrates in the Goonoo - Pilliga forests, Brigalow Belt South Bioregion | - | - |
| VCA 469: White Cypress Pine - Narrow-leaved Ironbark - Buloke grassy open forest of the Dubbo region, southern Brigalow Belt South Bioregion | - | - |

¹ NSW *Threatened Species Conservation Act 1995*

² Australian Government *Environment Protection and Biodiversity Conservation Act 1999*

| Native species recorded | Number |
|-------------------------|--------|
| Flora | 283 |
| Fauna | 113 |

Biddon State Conservation Area

Summary statistics - general

| Threatened species | | | |
|---|---|--------------------------|-----------------------|
| Scientific name | Common name | NSW TSC Act ¹ | EPBC Act ² |
| Flora | | | |
| - | - | - | - |
| Fauna | | | |
| <i>Calyptorhynchus lathamii</i> | Glossy black-cockatoo | V | - |
| <i>Ninox connivens</i> | Barking owl | V | - |
| <i>Climacteris picumnus victoriae</i> | Brown treecreeper (eastern subspecies) | V | - |
| <i>Chthonicola sagittata</i> | Speckled warbler | V | - |
| <i>Pomatostomus temporalis temporalis</i> | Grey-crowned babbler (eastern subspecies) | V | - |
| <i>Daphoenositta chrysoptera</i> | Varied sittella | V | - |
| <i>Phascolarctos cinereus</i> | Koala | V | V |

| Cultural heritage - Aboriginal and non-Aboriginal | Number of sites |
|---|-----------------|
| AHIMS registered sites | 42 |
| Heritage items or places of historic significance | 3 |

| Current management plans | Status |
|--|--------------------------------|
| Plan of management | October 2012 |
| <p>The Biddon State Conservation Area (3,352 hectares) is located 15km north-west of Gilgandra, in the Pilliga sub-region of the Brigalow Belt South Bioregion. In the long term it is intended for Biddon State Conservation Area to become a national park and due to this the management of the area will be guided as far as possible by the management principles for national parks.</p> <p>Specific management directions: Management of the state conservation area will focus on the protection of the significant vegetation communities, the protection of Aboriginal heritage, and encouragement of the use of the state conservation area for educational purposes. Major strategies to achieve these objectives are:</p> <ul style="list-style-type: none"> • on-going fire management so that people and property are protected from wildfire, and the state conservation area's conservation values are maintained; • on-going control of weeds and pest animal species to minimise their impact on the state conservation area's values; • protection and, where necessary, restoration of natural vegetation; • protection of cultural heritage places with community involvement, in particular from members of the local Aboriginal community; and • provision for opportunities for low key, independent recreation. | |
| Fire management strategy | April 2013 |
| Regional pest management strategy | Northern plains region 2012-17 |

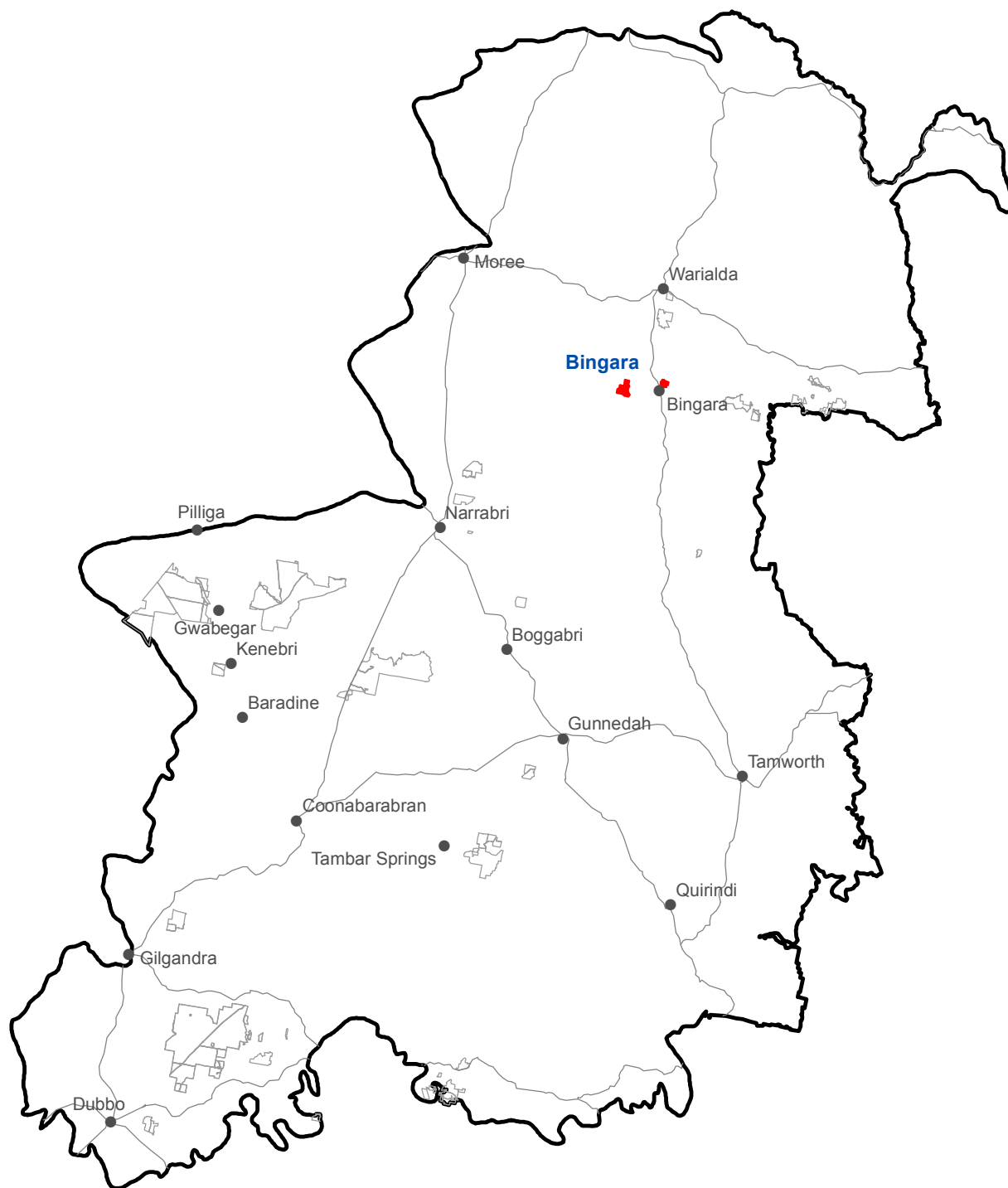
| Fire history | Prescribed burn (hectares) | Wildfire (hectares) |
|--------------|----------------------------|---------------------|
| 2005-06 | 11 | - |

| Mining | Number of titles |
|-------------|------------------|
| Exploration | 1 petroleum |
| Application | none |

| Apiarist sites |
|----------------|
| None |

Bingara State Conservation Area (1,979 hectares)

Location



- Bingara State Conservation Area
- Other Zone 3 State Conservation Areas

Spatial data courtesy of:
Office of Environment and Heritage




0 Km 60

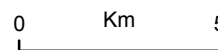
Bingara State Conservation Area

Aerial



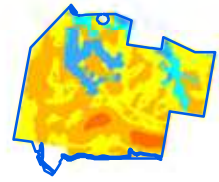
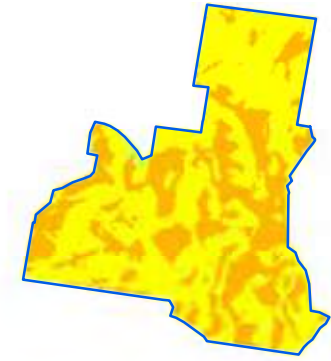
 Bingara State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).

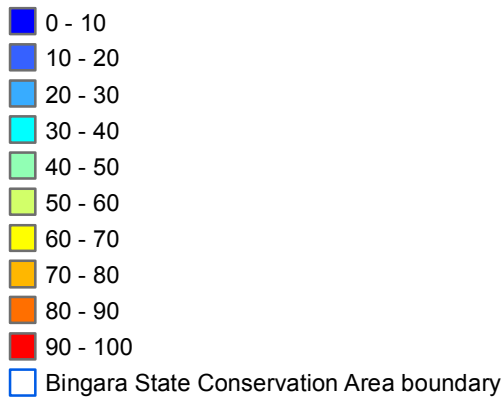


Bingara State Conservation Area

Predicted location - white cypress pine



Relative probability (%) of white cypress pine occurrence

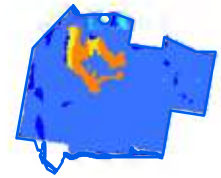


Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.

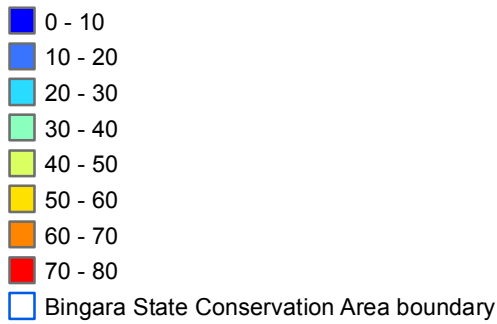


Bingara State Conservation Area

Predicted location - black cypress pine



Relative probability (%) of black cypress pine occurrence

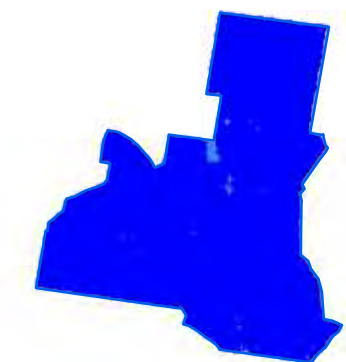


Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.

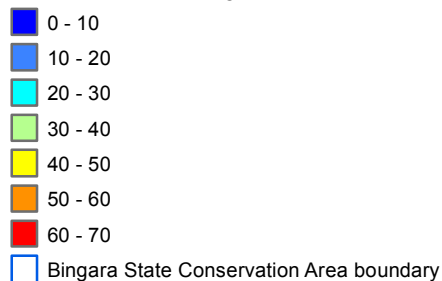


Bingara State Conservation Area

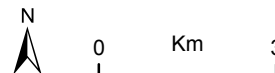
Predicted location - bulloak



Relative probability (%) of bulloak occurrence

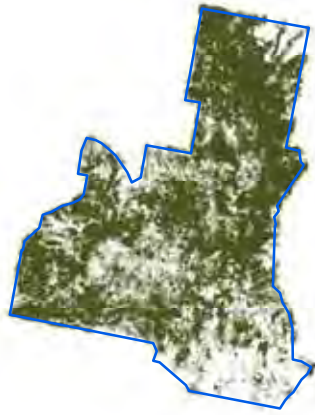



Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.




Bingara State Conservation Area

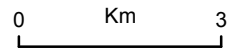
Continuous canopy density surface - cypress pine



 More dense canopy
Less dense canopy

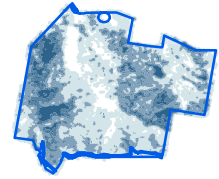
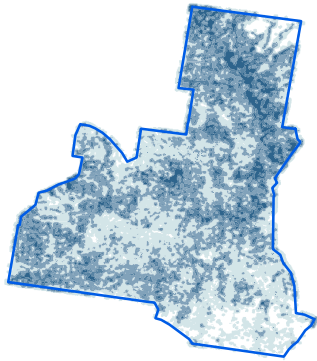
 Bingara State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).









Bingara State Conservation Area

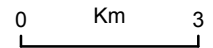
Discrete canopy density classes - cypress pine



Canopy density classes

-  Class 0 (little or no cypress pine detected)
-  Density slice range 1 to 10
-  Density slice range 10 to 20
-  Density slice range 20 to 30
-  Density slice range 30 to 100
-  Bingara State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Bingara State Conservation Area

Summary statistics - spatial analysis

| Area of cypress canopy classes (excludes areas affected by wildfire since 2009) | |
|---|------------------|
| Class | Total (hectares) |
| Class 0 (little or no cypress detected) | 146 |
| Class 1 (1-10 percent) | 875 |
| Class 2 (11-20 percent) | 678 |
| Class 3 (21-30 percent) | 315 |
| Class 4 (>31 percent) | 113 |

| Issues and confidence levels for ADS40 spatial products | | |
|---|---|-------------------|
| ADS40 image quality | Issues | Confidence levels |
| Medium | Image classification and mapping includes other species | Lower |

Bingara State Conservation Area

Summary statistics - general

| Lindsay types | Area (hectares) | Proportion of total (%) |
|---|-----------------|-------------------------|
| White Box | 30 | 2 |
| Western Red Gums - White Box (<i>E.albens</i>) | 7 | <1 |
| White Cypress Pine (<i>Callitris glaucophylla</i>) in association with Silverleaved Ironbark (<i>E. melanophloia</i>) - Tumbledown Red Gum (<i>E. dealbata</i>) | 46 | 2 |
| White Cypress Pine (<i>Callitris glaucophylla</i>) - Silverleaved Ironbark (<i>E. melanophloia</i>) in association with Western Scrub | 12 | 1 |
| White Cypress Pine (<i>Callitris glaucophylla</i>) - Silverleaved Ironbark (<i>E. melanophloia</i>) | 228 | 11 |
| Silverleaved Ironbark (<i>E.melanophloia</i>) over Western Scrub | 39 | 2 |
| Silverleaved Ironbark (<i>E. melanophloia</i>) - White Box (<i>E. albens</i>) | 32 | 2 |
| Caley's Ironbark (<i>E. caleyi</i>) - Tumbledown Red Gum (<i>E. dealbata</i>) | 42 | 2 |
| Silverleaved Ironbark (<i>E.melanophloia</i>) - Tumbledown Red Gum (<i>E.dealbata</i>) | 19 | 1 |
| Silverleaved Ironbark | 55 | 3 |
| Silverleaved Ironbark (<i>E.melanophloia</i>), cleared areas present | 1 | <1 |
| Cleared with Settlements, Roads, Gravels Pits, etc | 2 | <1 |
| Water Surfaces | 2 | <1 |
| Not typed | 1,467 | 74 |

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|---|--------------------------|-----------------------|
| VCA 112: Black Tea-tree - River Oak - Wilga riparian low forest/shrubland wetland of rich soil depressions in the Brigalow Belt South Bioregion | - | - |
| VCA 445: Brigalow viney scrub open forest on loamy soils in low hill landscapes in the northern Brigalow Belt South Bioregion NSW | yes | yes |
| VCA 147: Mock Olive - Wilga - Peach Bush - Carissa semi-evergreen vine thicket (dry rainforest) mainly on basalt soils in the Brigalow Belt South Bioregion | yes | yes |
| VCA 528: Mugga Ironbark - Blakely's Red Gum open forest of the Nandewar and New England Tablelands Bioregions | nominated | - |
| VCA 88: Pilliga Box - White Cypress Pine - Buloke shrubby woodland in the Brigalow Belt South Bioregion | - | - |
| VCA 511: Queensland Bluegrass - Redleg Grass - Rats Tail Grass - spear grass - panic grass derived grassland of the Nandewar and Brigalow Belt South Bioregions | - | - |
| VCA 78: River Red Gum riparian tall woodland / open forest wetland in the Nandewar and Brigalow Belt South Bioregions | - | - |
| VCA 598: Silver-leaved Ironbark - White Box - White Cypress Pine viney scrub woodland in the Nandewar and Brigalow Belt South Bioregions | - | - |
| VCA 594: Silver-leaved Ironbark - White Cypress Pine shrubby open forest of Brigalow Belt South and Nandewar Bioregions | - | - |
| VCA 460: Tumbledown Gum - ironbark - Porcupine Grass hummock grassland / low woodland of the Mount Kaputar to Bingara region, Nandewar Bioregion | - | - |
| VCA 562: Tumbledown Red Gum - White Cypress Pine - Caley's Ironbark shrubby open forest of the Nandewar and western New England Tablelands Bioregions | - | - |
| VCA 597: White Box - cypress pine - Silver-leaved Ironbark shrub grass open forest / woodland of the northern Brigalow Belt South and Nandewar Bioregions | - | - |

Bingara State Conservation Area

Summary statistics - general

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|---|--------------------------|-----------------------|
| VCA 564: White Cypress Pine - Silver-leaved Ironbark - Caley's Ironbark open forest of the central Nandewar and western New England Tablelands Bioregions | - | - |
| VCA 547: Wild Quince - Mock Olive - Rusty Fig - Iamboto - Sweet Pittosporum dry rainforest of rocky and scree areas of the Nandewar and New England Tablelands Bioregions | yes | yes |

¹ NSW *Threatened Species Conservation Act 1995*

² Australian Government *Environment Protection and Biodiversity Conservation Act 1999*

| Native species recorded | | Number | |
|---------------------------------------|---|--------------------------|-----------------------|
| Flora | | 335 | |
| Fauna | | 38 | |
| Threatened species | | | |
| Scientific name | Common name | NSW TSC Act ¹ | EPBC Act ² |
| Flora | | | |
| - | - | - | - |
| Fauna | | | |
| <i>Alectura lathami</i> | Australian brush-turkey population in the Nandewar and Brigalow Belt South Bioregions | E2 | - |
| <i>Neophema pulchella</i> | Turquoise parrot | V | - |
| <i>Climacteris picumnus victoriae</i> | Brown treecreeper (eastern subspecies) | V | - |
| <i>Chthonicola sagittata</i> | Speckled warbler | V | - |
| <i>Melithreptus gularis gularis</i> | Black-chinned honeyeater (eastern subspecies) | V | - |
| <i>Stagonopleura guttata</i> | Diamond firetail | V | - |
| <i>Petaurus norfolcensis</i> | Squirrel glider | V | - |

| Cultural heritage - Aboriginal and non-Aboriginal | Number of sites |
|---|--------------------------|
| AHIMS registered sites | 2 |
| Heritage items or places of historic significance | no information available |

| Current management plans | Status |
|-----------------------------------|--------------------------------|
| Plan of management | no |
| Fire management strategy | June 2008 |
| Regional pest management strategy | Northern plains region 2012-17 |

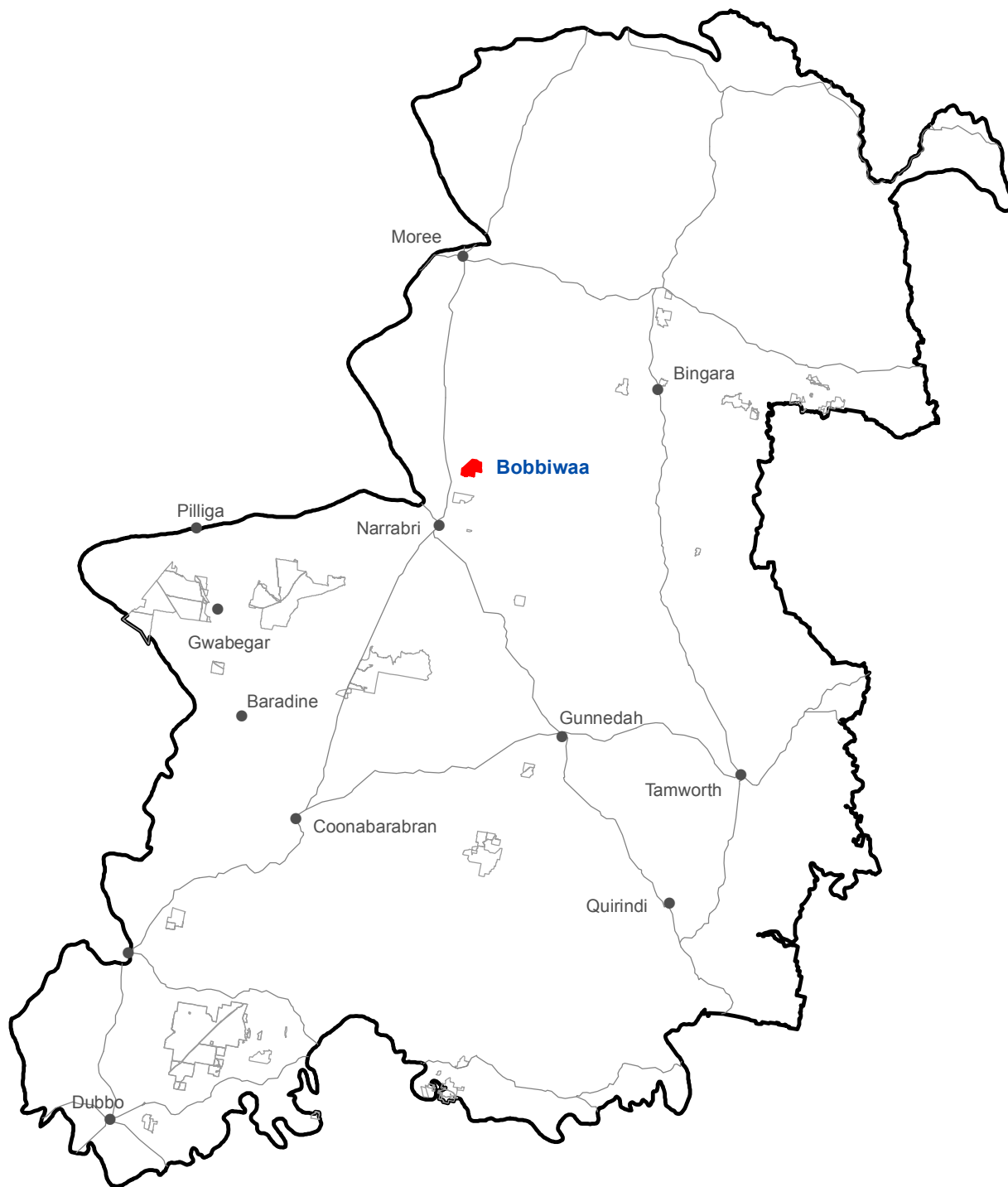
| Fire history | Prescribed burn (hectares) | Wildfire (hectares) |
|--------------|----------------------------|---------------------|
| 2011-12 | 6 | - |

| Mining | Number of titles |
|-------------|------------------------|
| Exploration | 1 petroleum, 3 mineral |
| Application | 1 petroleum |

| Apiarist sites |
|----------------|
| 1 |

Bobbiwaa State Conservation Area (2,688 hectares)

Location



- Bobbiwaa State Conservation Area
- Other Zone 3 State Conservation Areas


Spatial data courtesy of Office of Environment and Heritage.



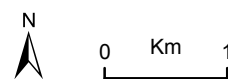
Bobbiwaa State Conservation Area

Aerial



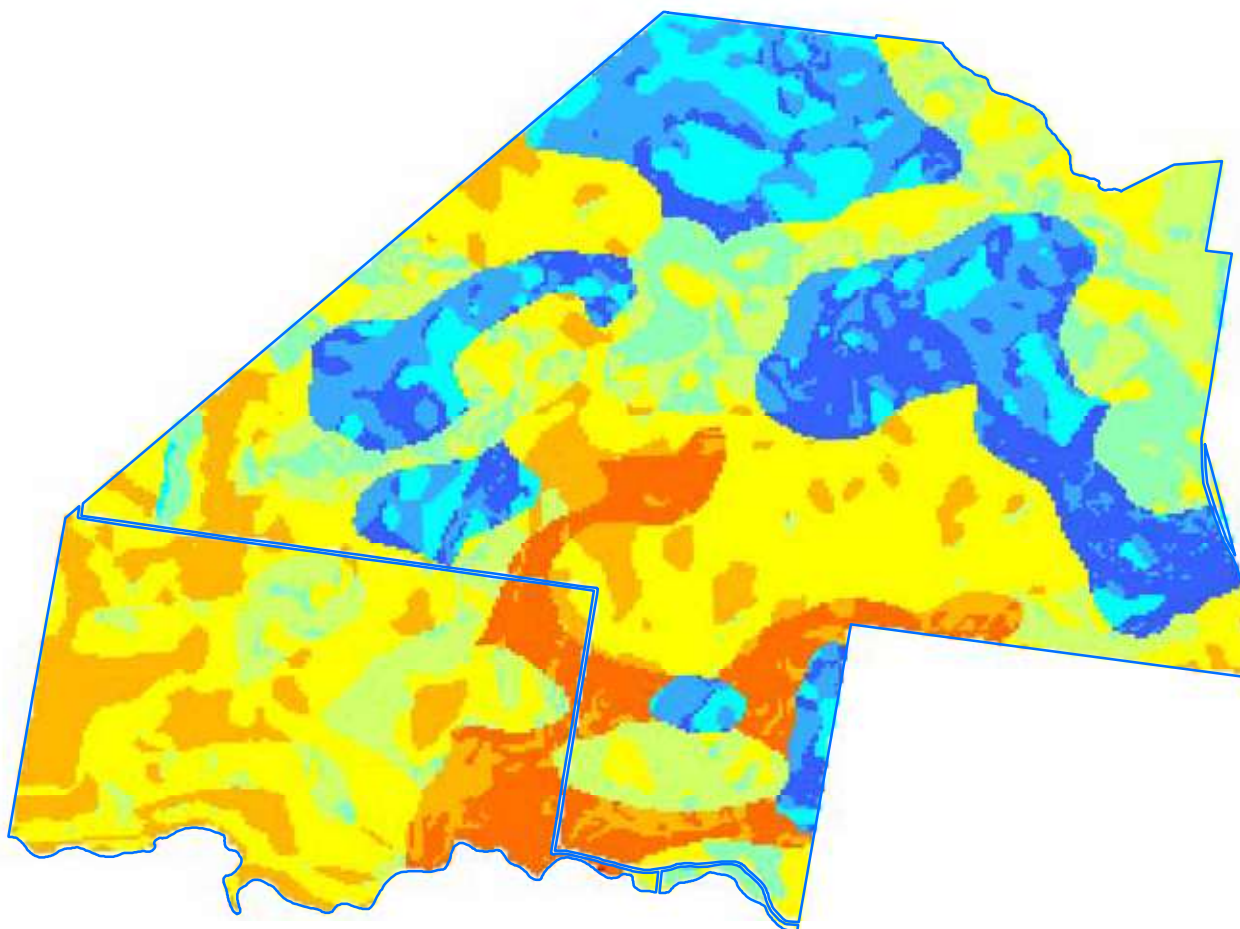
 Bobbiwaa State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Bobbiwaa State Conservation Area

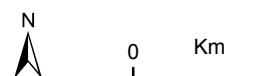
Predicted location - white cypress pine



Relative probability (%) of white cypress pine occurrence

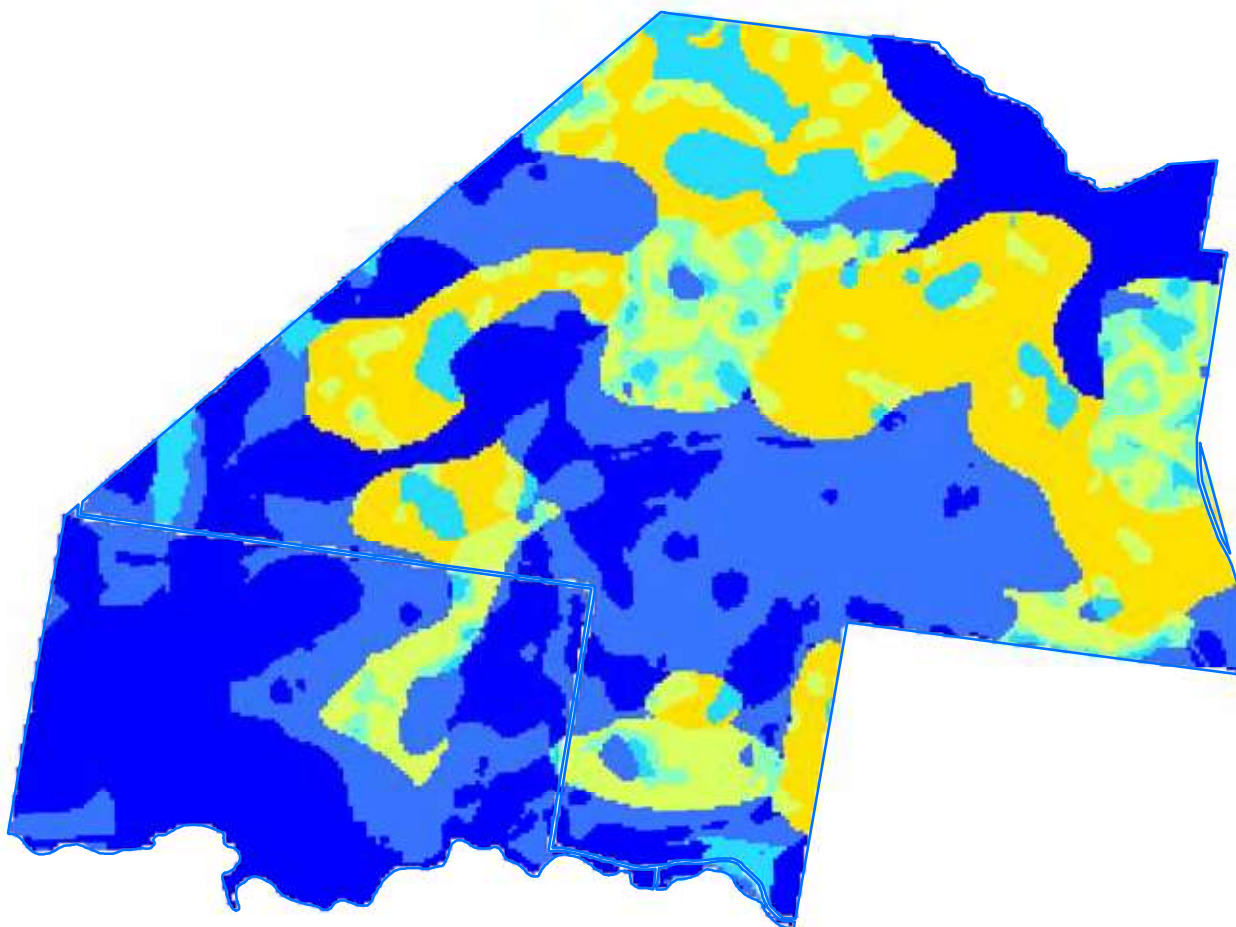
- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- 80 - 90
- 90 - 100
- Bobbiwaa State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Bobbiwaa State Conservation Area

Predicted location - black cypress pine



Relative probability (%) of black cypress pine occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80

□ Bobbiwaa State Conservation Area boundary

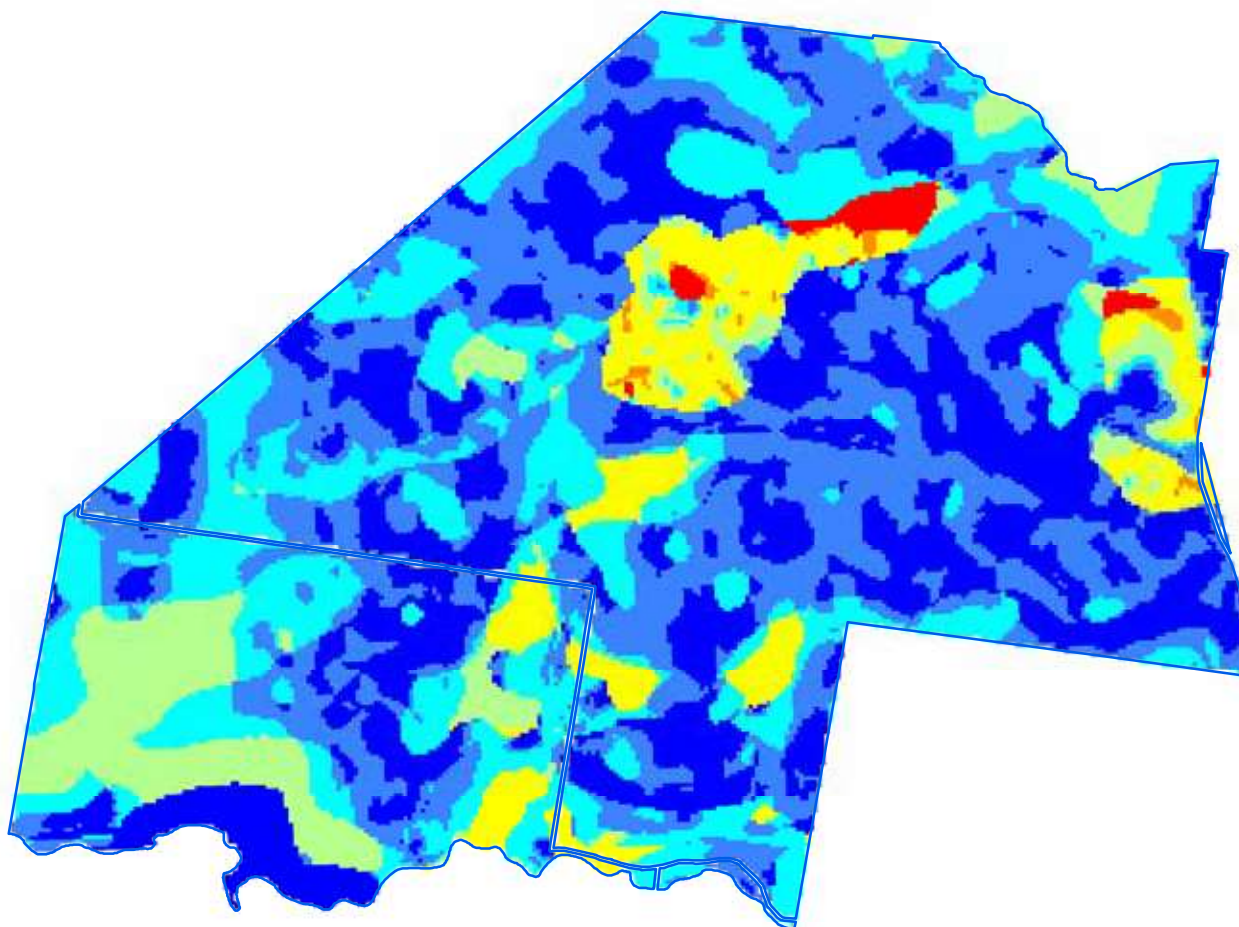
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



0 Km 1

Bobbiwaa State Conservation Area

Predicted location - bulloak



Relative probability (%) of bulloak occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- Bobbiwaa State Conservation Area boundary

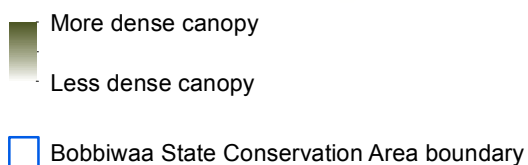
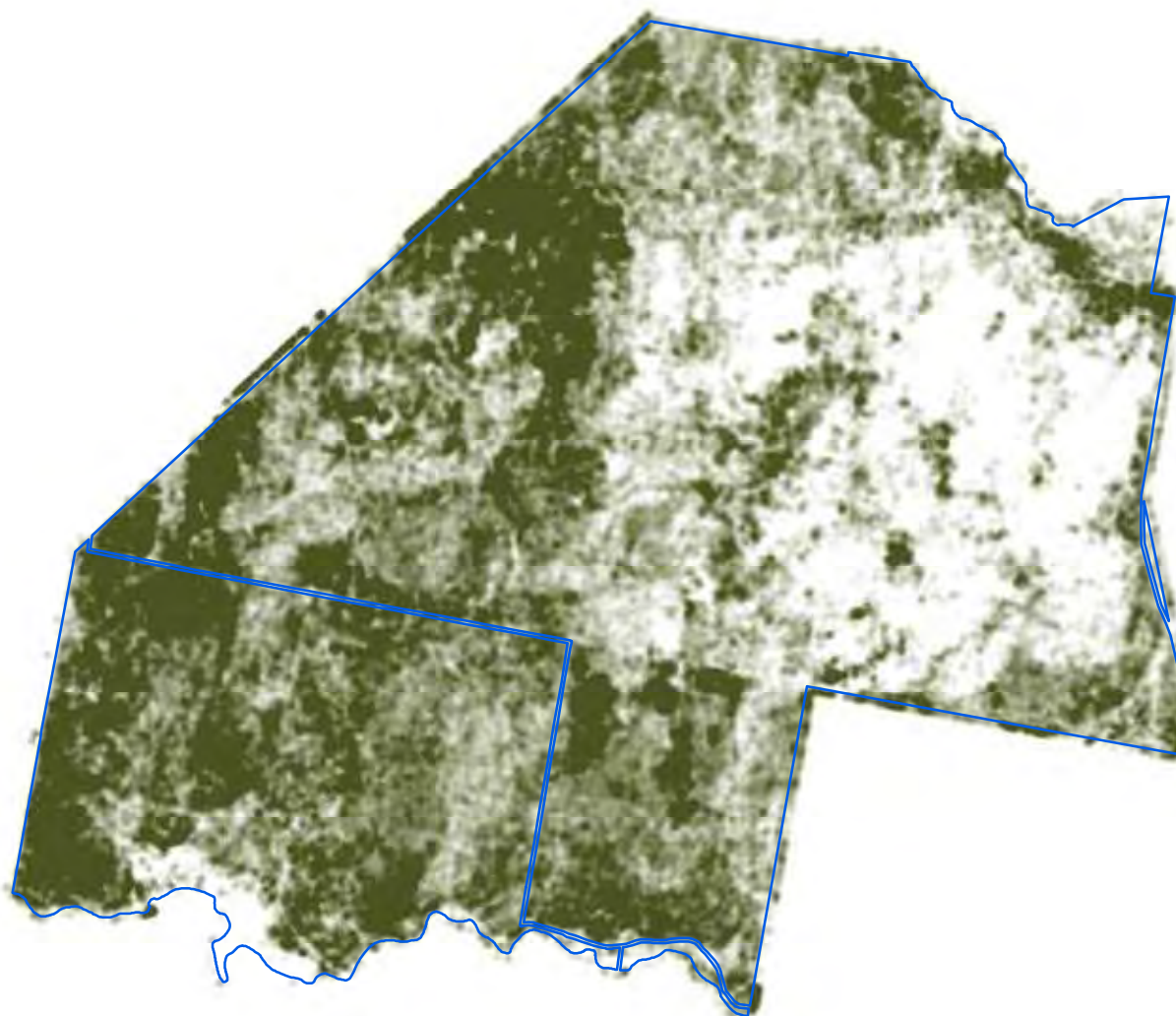
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



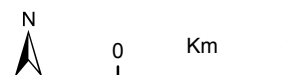
0 Km 1

Bobbiwaa State Conservation Area

Continuous canopy density surface - cypress pine

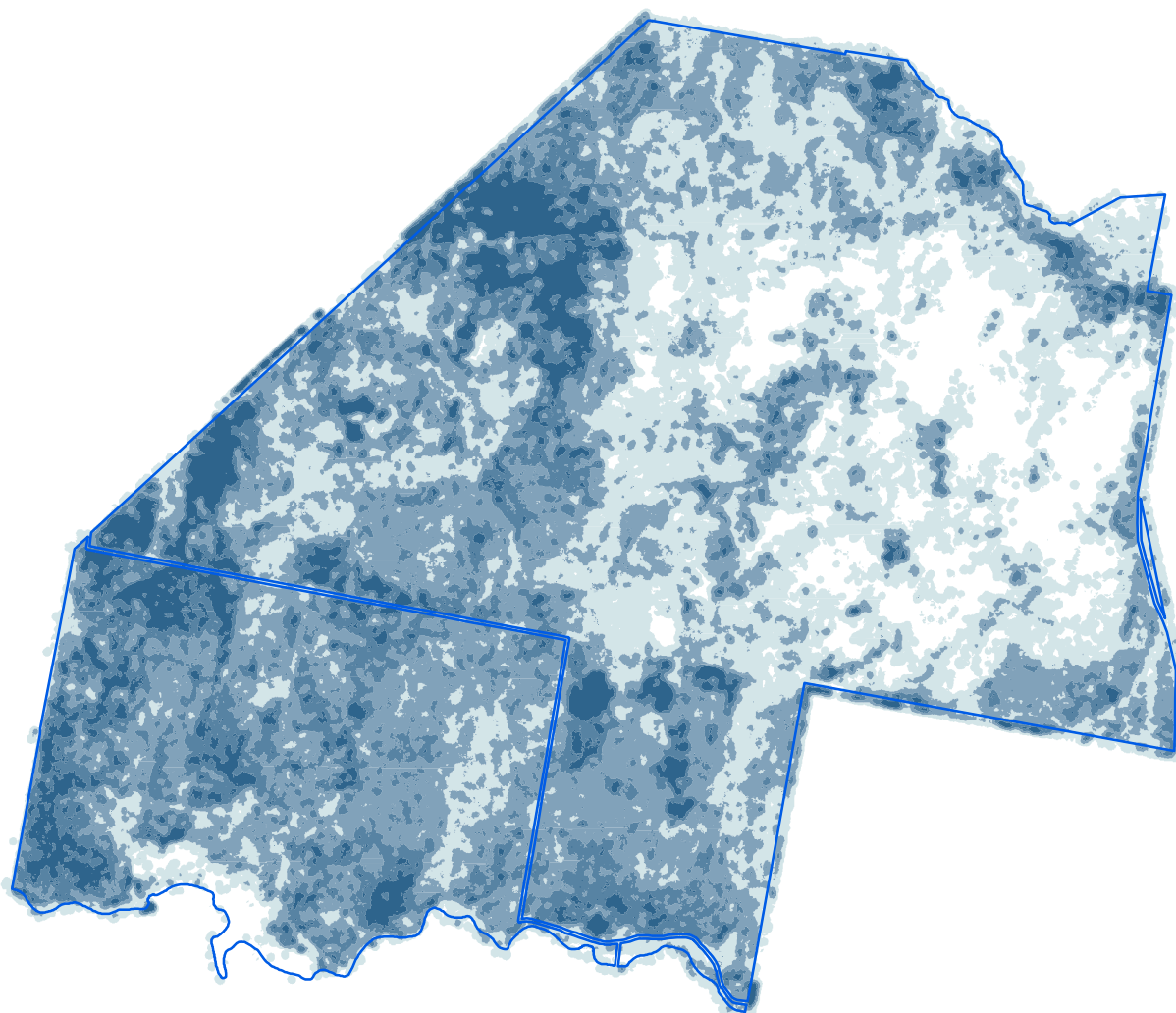


ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Bobbiwaa State Conservation Area

Discrete canopy density classes - cypress pine



Canopy density classes

- Class 0 (little or no cypress pine detected)
- Density slice range 1 to 10
- Density slice range 10 to 20
- Density slice range 20 to 30
- Density slice range 30 to 100
- Bobbiwaa State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Bobbiwaa State Conservation Area

Summary statistics - spatial analysis

| Area of cypress canopy classes (excludes areas affected by wildfire since 2009) | |
|---|------------------|
| Class | Total (hectares) |
| Class 0 (little or no cypress detected) | 304 |
| Class 1 (1-10 percent) | 888 |
| Class 2 (11-20 percent) | 941 |
| Class 3 (21-30 percent) | 475 |
| Class 4 (>31 percent) | 213 |

| Issues and confidence levels for ADS40 spatial products | | |
|---|--------|-------------------|
| ADS40 image quality | Issues | Confidence levels |
| High | - | Higher |

Bobbiwaa State Conservation Area

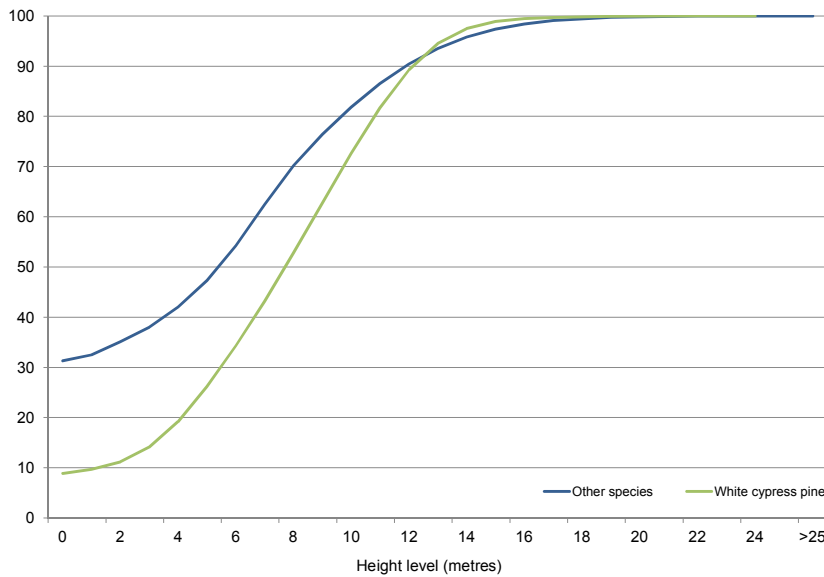
Summary statistics - spatial analysis

Light detection and ranging (LiDAR) data and analysis

Cumulative height and percentage cover charts show the average cumulative height for white cypress pine and other species, averaged over the State Conservation Area. The figures also show the relative proportion of white cypress pine cover and other species' cover within four height classes, averaged over the State Conservation Area.

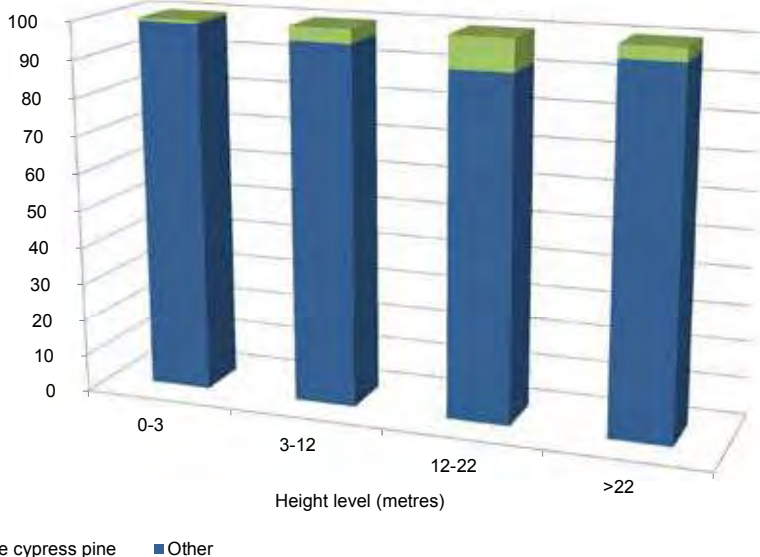
Cumulative height chart

percentage area of stand up to height level



Percentage cover chart

percentage contribution



Key insights include:

- Higher proportion of mid-size white cypress pine and fewer small and large white cypress trees (note relatively steep slope of cypress curve between 6 and 14 metres, which contains about 70 percent of total cypress cover).
- Relatively little area of white cypress pine cover in the 0 - 3 metre height range.
- Most white cypress pine cover occurs in the 12 - 22 metre height range.
- Average white cypress pine cover contribution is 3.1 percent across all height classes.

Bobbiwaa State Conservation Area

Summary statistics - general

| Lindsay types | Area (hectares) | Proportion of total (%) |
|---|-----------------|-------------------------|
| Not typed | 27 | 1 |
| Belah (Lindsay Types) | 34 | 1 |
| Red Gum - Bloodwood - Black Pine | 43 | 2 |
| Red Gum - Bloodwood - White Cypress Pine (Lindsay Types) | 665 | 25 |
| Narrowleaf Ironbark - Forest Oak - White Cypress Pine (Lindsay Types) | 63 | 2 |
| White Cypress Pine - Red Gum - Smoothbark Apple (Lindsay Types) | 173 | 7 |
| Cypress Pine - Red Gum (blakeyi) - Forest Oak | 247 | 9 |
| White Cypress Pine - Narrowleaf Ironbark - Forest Oak (Lindsay Types) | 147 | 6 |
| Bimble Box - White Cypress Pine (Lindsay Types) | 151 | 6 |
| Pilliga Box - White Cypress Pine (Lindsay Types) | 80 | 3 |
| White Cypress Pine - White Box (Lindsay Types) | 15 | 1 |
| White Cypress Pine - Silverleaf Ironbark (Lindsay Types) | 717 | 27 |
| White Cypress Pine - Bimble Box (Lindsay Types) | 112 | 4 |
| White Cypress Pine - Pilliga Box (Lindsay Types) | 121 | 5 |
| White Cypress Pine - Bloodwood - Red Gum (Lindsay Types) | 14 | 1 |
| Evidence of clearing by man (Lindsay Types) | 51 | 2 |

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|--|--------------------------|-----------------------|
| VCA 112: Black Tea-tree - River Oak - Wilga riparian low forest/shrubland wetland of rich soil depressions in the Brigalow Belt South Bioregion | - | - |
| VCA 428: Carbeen - White Cypress Pine - Curracabah - White Box tall woodland on sand in the Narrabri - Warialda region of the Brigalow Belt South Bioregion | yes | - |
| VCA 398: Narrow-leaved Ironbark - White Cypress Pine - Buloke tall open forest on lower slopes and flats in the Pilliga Scrub and surrounding forests in the central north Brigalow Belt South Bioregion | - | - |
| VCA 56: Poplar Box - Belah woodland on clay-loam soils on alluvial plains of north-central NSW | - | - |
| VCA 78: River Red Gum riparian tall woodland / open forest wetland in the Nandewar and Brigalow Belt South Bioregions | - | - |
| VCA 422: Smooth-barked Apple - cypress pine - Narrow-leaved Ironbark - White Bloodwood tall heathy woodland of the Pilliga forests to Warialda region, Brigalow Belt South Bioregion | - | - |
| VCA 27: Weeping Myall open woodland of the Darling Riverine Plains and Brigalow Belt South Bioregions | yes | yes |
| VCA 145: Western Rosewood - Wilga - Wild Orange - Belah low woodland of the Brigalow Belt South and eastern Darling Riverine Plains Bioregions | - | - |
| VCA 431: White Bloodwood - Dirty Gum - cypress pine shrubby low woodland on sandy soils in the Narrabri to Warialda region, Brigalow Belt South Bioregion | - | - |
| VCA 418: White Cypress Pine - Silver-leaved Ironbark - Wilga shrub grass woodland of the Narrabri-Yetman region, Brigalow Belt South Bioregion | - | - |

¹ NSW *Threatened Species Conservation Act 1995*

² Australian Government *Environment Protection and Biodiversity Conservation Act 1999*

Bobbiwaa State Conservation Area

Summary statistics - general

| Native species recorded | | Number | |
|---------------------------------------|--|--------------------------|-----------------------|
| Flora | | 286 | |
| Fauna | | 111 | |
| Threatened species | | | |
| Scientific name | Common name | NSW TSC Act ¹ | EPBC Act ² |
| Flora | | | |
| - | - | - | - |
| Fauna | | | |
| <i>Glossopsitta pusilla</i> | Little lorikeet | V | - |
| <i>Neophema pulchella</i> | Turquoise parrot | V | - |
| <i>Ninox connivens</i> | Barking owl | V | - |
| <i>Tyto novaehollandiae</i> | Masked owl | V | - |
| <i>Climacteris picumnus victoriae</i> | Brown treecreeper (eastern subspecies) | V | - |
| <i>Chthonicola sagittata</i> | Speckled warbler | V | - |
| <i>Daphoenositta chrysoptera</i> | Varied sittella | V | - |
| <i>Phascolarctos cinereus</i> | Koala | V | V |
| <i>Petaurus norfolcensis</i> | Squirrel glider | V | - |
| <i>Saccolaimus flaviventris</i> | Yellow-bellied sheath-tail-bat | V | - |
| <i>Nyctophilus corbeni</i> | Corben's long-eared bat | V | V |

| Cultural heritage - Aboriginal and non-Aboriginal | Number of sites |
|---|-----------------|
| AHIMS registered sites | 4 |
| Heritage items or places of historic significance | 1 |

| Current management plans | Status |
|-----------------------------------|--------------------------------|
| Plan of management | no |
| Fire management strategy | April 2009 |
| Regional pest management strategy | Northern plains region 2012-17 |

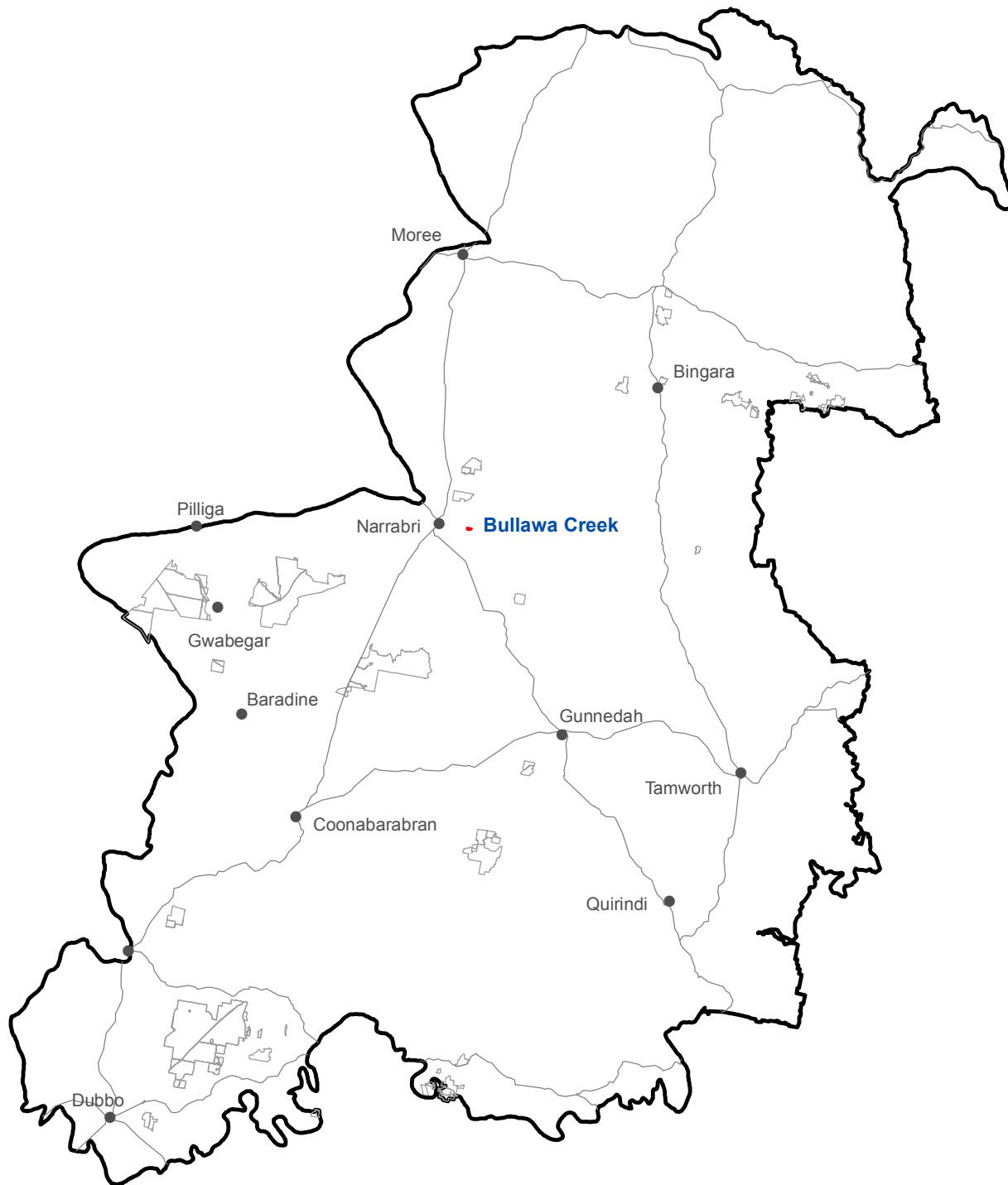
| Fire history | Prescribed burn (hectares) | Wildfire (hectares) |
|--------------|----------------------------|---------------------|
| 2008-09 | 488 | - |
| 2012-13 | - | 1 |

| Mining | Number of titles |
|-------------|------------------|
| Exploration | 2 petroleum |
| Application | none |

| Apiarist sites |
|----------------|
| None |

Bullawa Creek State Conservation Area (99 hectares)

Location



- Bullawa Creek State Conservation Area
- Other Zone 3 State Conservation Areas

Spatial data courtesy of Office of Environment and Heritage.



Bullawa Creek State Conservation Area

Aerial



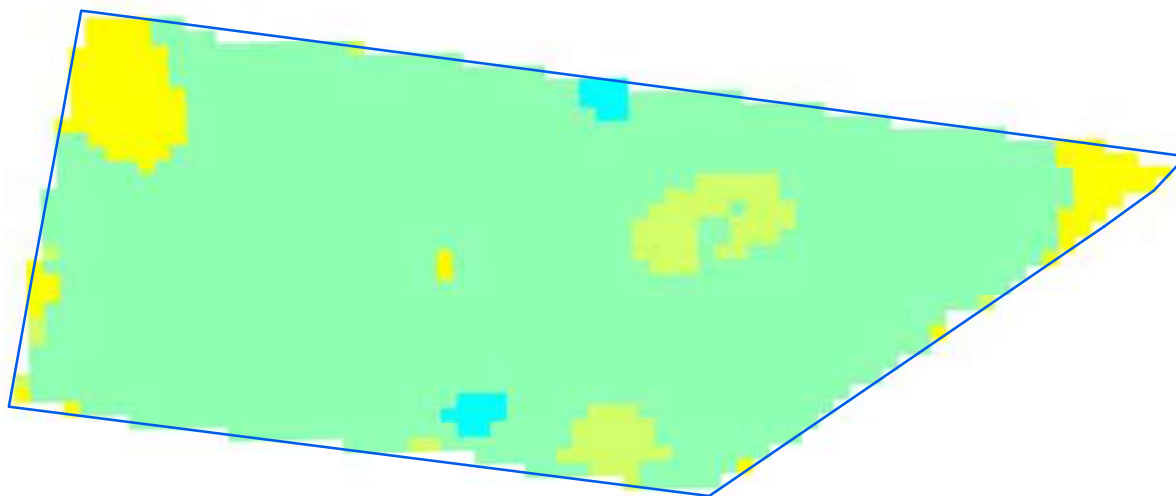
 Bullawa Creek State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).

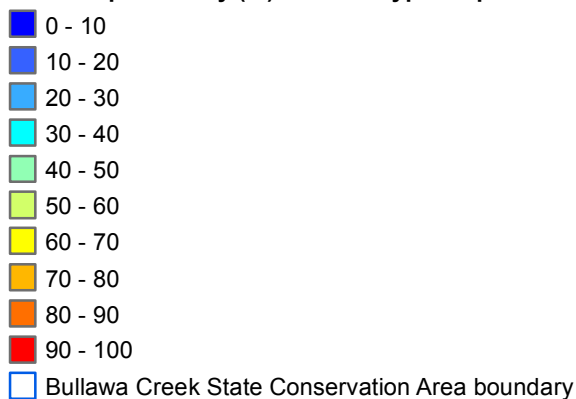


Bullawa Creek State Conservation Area

Predicted location - white cypress pine



Relative probability (%) of white cypress pine occurrence

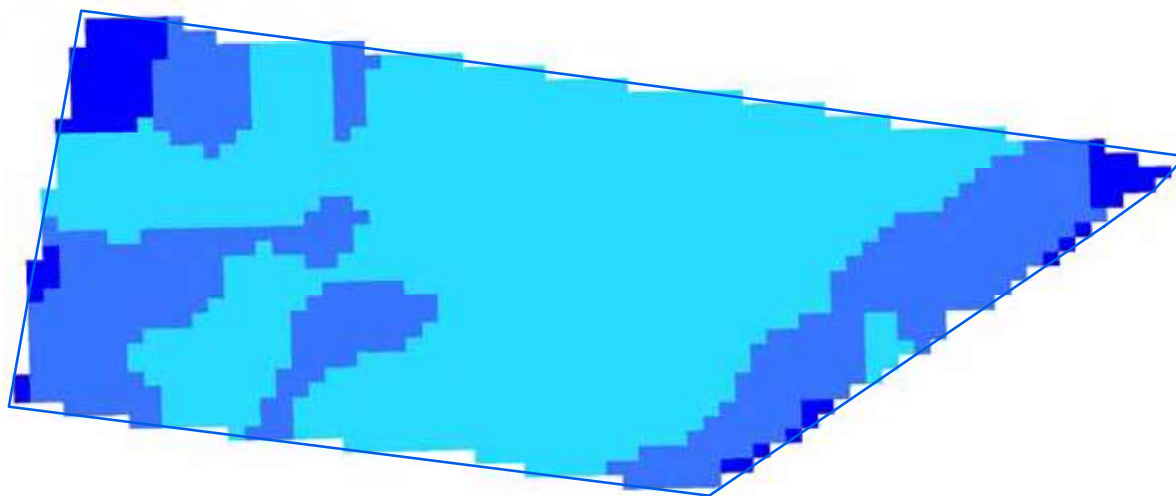


Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.

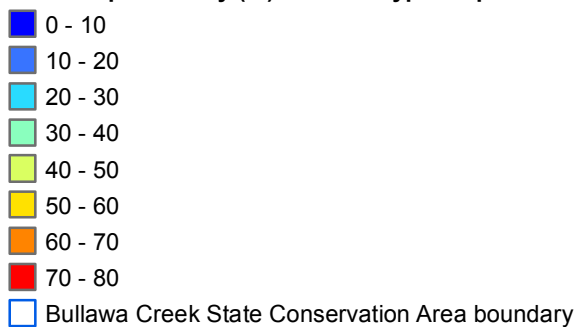


Bullawa Creek State Conservation Area

Predicted location - black cypress pine



Relative probability (%) of black cypress pine occurrence

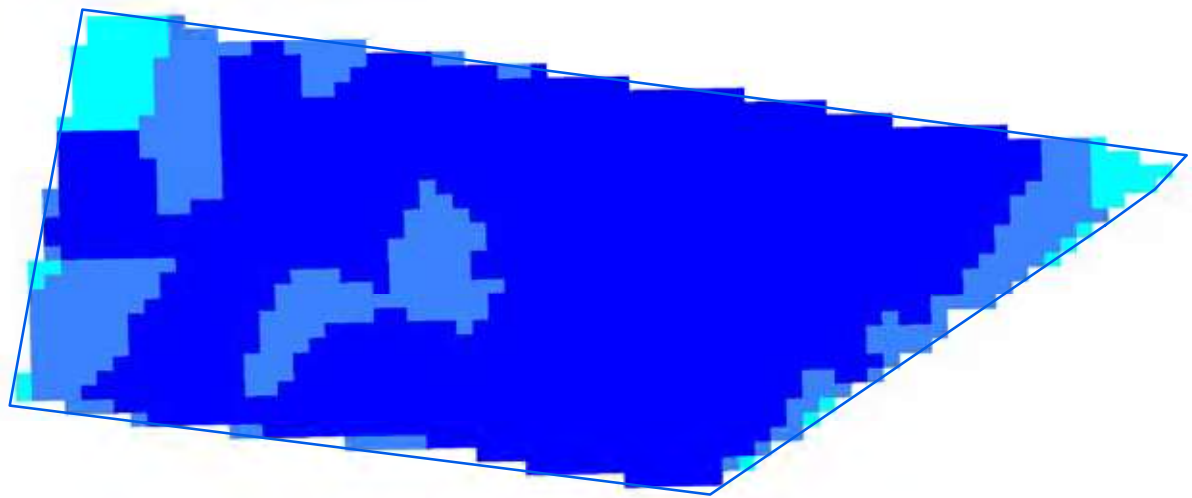


Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.

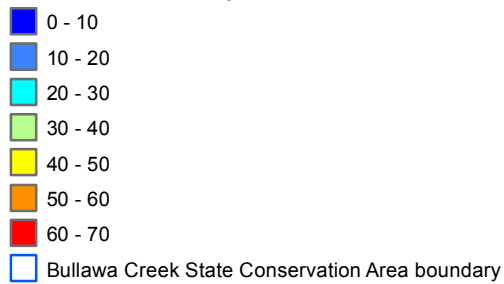


Bullawa Creek State Conservation Area

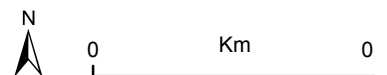
Predicted location - bulloak



Relative probability (%) of bulloak occurrence

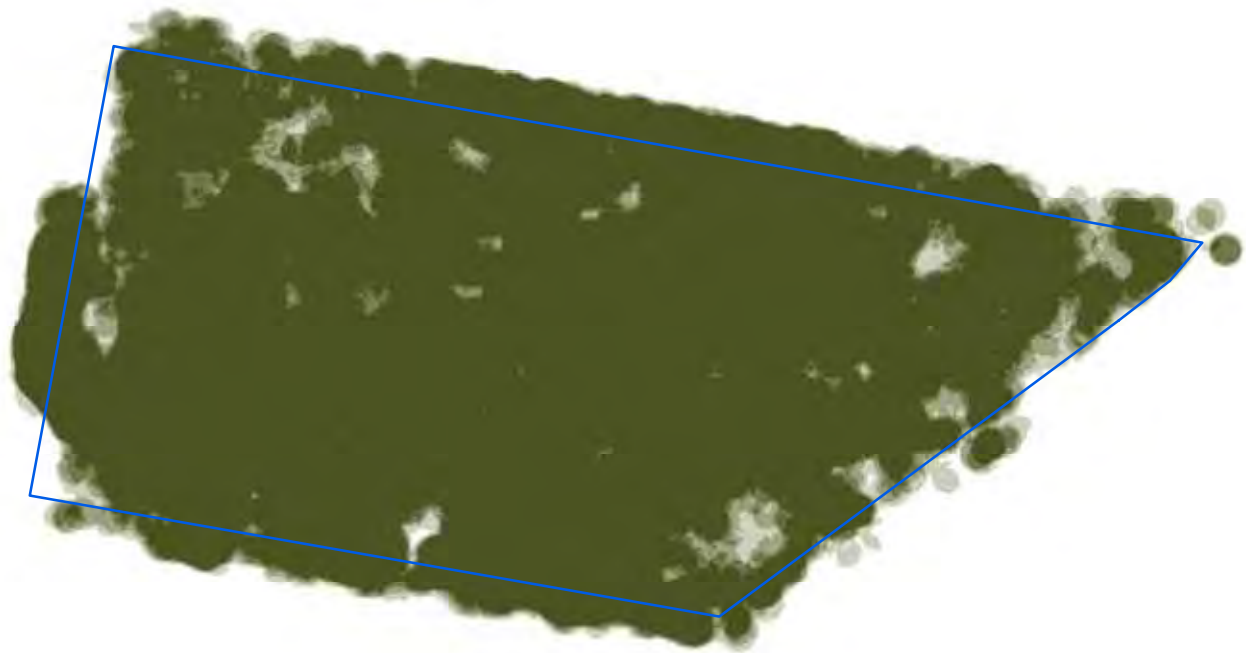



Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Bullawa Creek State Conservation Area

Continuous canopy density surface - cypress pine



 More dense canopy
Less dense canopy

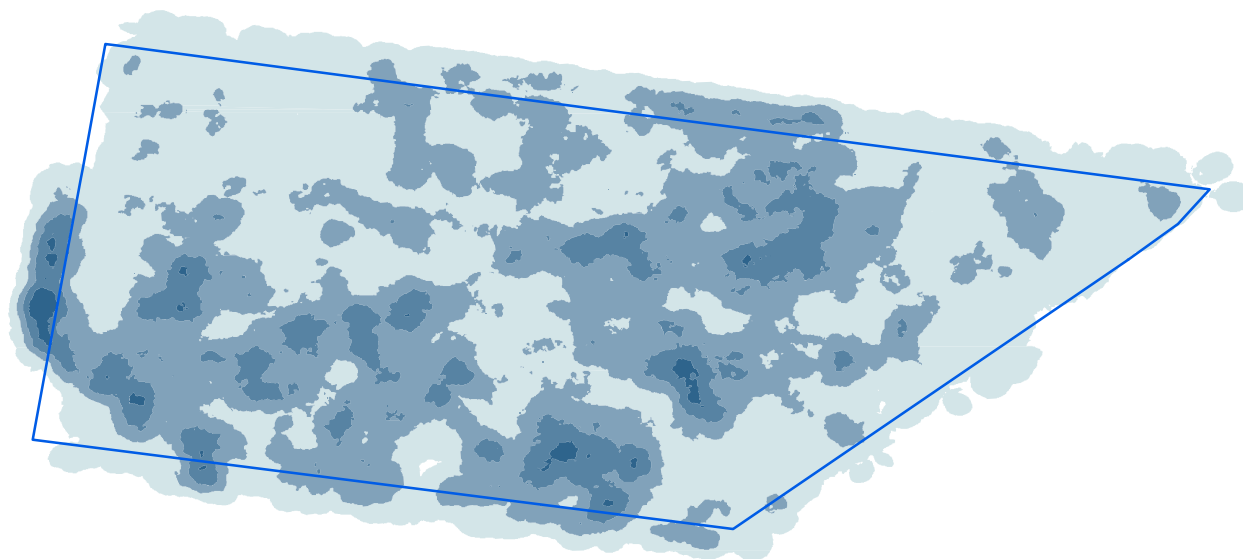
 Bullawa Creek State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Bullawa Creek State Conservation Area

Discrete canopy density classes - cypress pine



Canopy density classes

- Class 0 (little or no cypress pine detected)
- Density slice range 1 to 10
- Density slice range 10 to 20
- Density slice range 20 to 30
- Density slice range 30 to 100
- Bullawa Creek State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Bullawa Creek State Conservation Area

Summary statistics - spatial analysis

| Area of cypress canopy classes (excludes areas affected by wildfire since 2009) | |
|---|------------------|
| Class | Total (hectares) |
| Class 0 (little or no cypress detected) | 1 |
| Class 1 (1-10 percent) | 63 |
| Class 2 (11-20 percent) | 46 |
| Class 3 (21-30 percent) | 11 |
| Class 4 (>31 percent) | 1 |

| Issues and confidence levels for ADS40 spatial products | | |
|---|--------|-------------------|
| ADS40 image quality | Issues | Confidence levels |
| Medium | - | Lower |

Bullawa Creek State Conservation Area

Summary statistics - general

| Lindsay types | Area (hectares) | Proportion of total (%) |
|---------------|-----------------|-------------------------|
| Not typed | 99 | - |

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|---|--------------------------|-----------------------|
| VCA 411: Buloke - White Cypress Pine woodland on outwash plains in the Pilliga Scrub and Narrabri regions, Brigalow Belt South bioregion | - | - |
| VCA 408: Dirty Gum (Baradine Gum) - Black Cypress Pine - White Bloodwood shrubby woodland on of the Pilliga forests and surrounding region | - | - |
| VCA 430: Motherumbah - red gum - White Cypress Pine tall shrubland of the Narrabri to Wialda region, Brigalow Belt South bioregion | - | - |
| VCA 413: Silver-leaved Ironbark - White Cypress Pine - box dry shrub grass woodland of the Pilliga Scrub - Wialda region, Brigalow Belt South Bioregion | - | - |

¹ NSW *Threatened Species Conservation Act 1995*

² Australian Government *Environment Protection and Biodiversity Conservation Act 1999*

| Native species recorded | | Number | |
|---------------------------------------|--|--------------------------|-----------------------|
| Flora | | 127 | |
| Fauna | | 19 | |
| Threatened species | | | |
| Scientific name | Common name | NSW TSC Act ¹ | EPBC Act ² |
| Flora | | | |
| - | - | - | - |
| Fauna | | | |
| <i>Climacteris picumnus victoriae</i> | Brown treecreeper (eastern subspecies) | V | - |

| Cultural heritage - Aboriginal and non-Aboriginal | Number of sites |
|---|-----------------|
| AHIMS registered sites | 5 |
| Heritage items or places of historic significance | 0 |

| Current management plans | Status |
|--|--------------------------------|
| Plan of management | November 2012 |
| <p>Bullawa Creek state conservation area (99 hectares) is located 10km east of Narrabri.</p> <p>Specific management directions: In addition to the general principles for the management of state conservation areas, the management of Bullawa Creek State Conservation Area will focus on the protection of vegetation communities, the protection of Aboriginal heritage and encouraging the use of the reserve for educational purposes. Major strategies to achieve these objectives are:</p> <ul style="list-style-type: none"> • protection of natural values from weeds, feral animals and wildfire; • protection of Aboriginal sites in consultation with the Aboriginal community, including facilitating access to the sites by members of the local Aboriginal community; • research into the reserve's natural and cultural values, particularly establishing the reserve's importance as a refuge and possible impacts by neighbouring land uses; and • provision of opportunities for educational and low impact nature-based recreation. | |
| Fire management strategy | September 2008 |
| Regional pest management strategy | Northern plains region 2012-17 |

Bullawa Creek State Conservation Area

Summary statistics - general

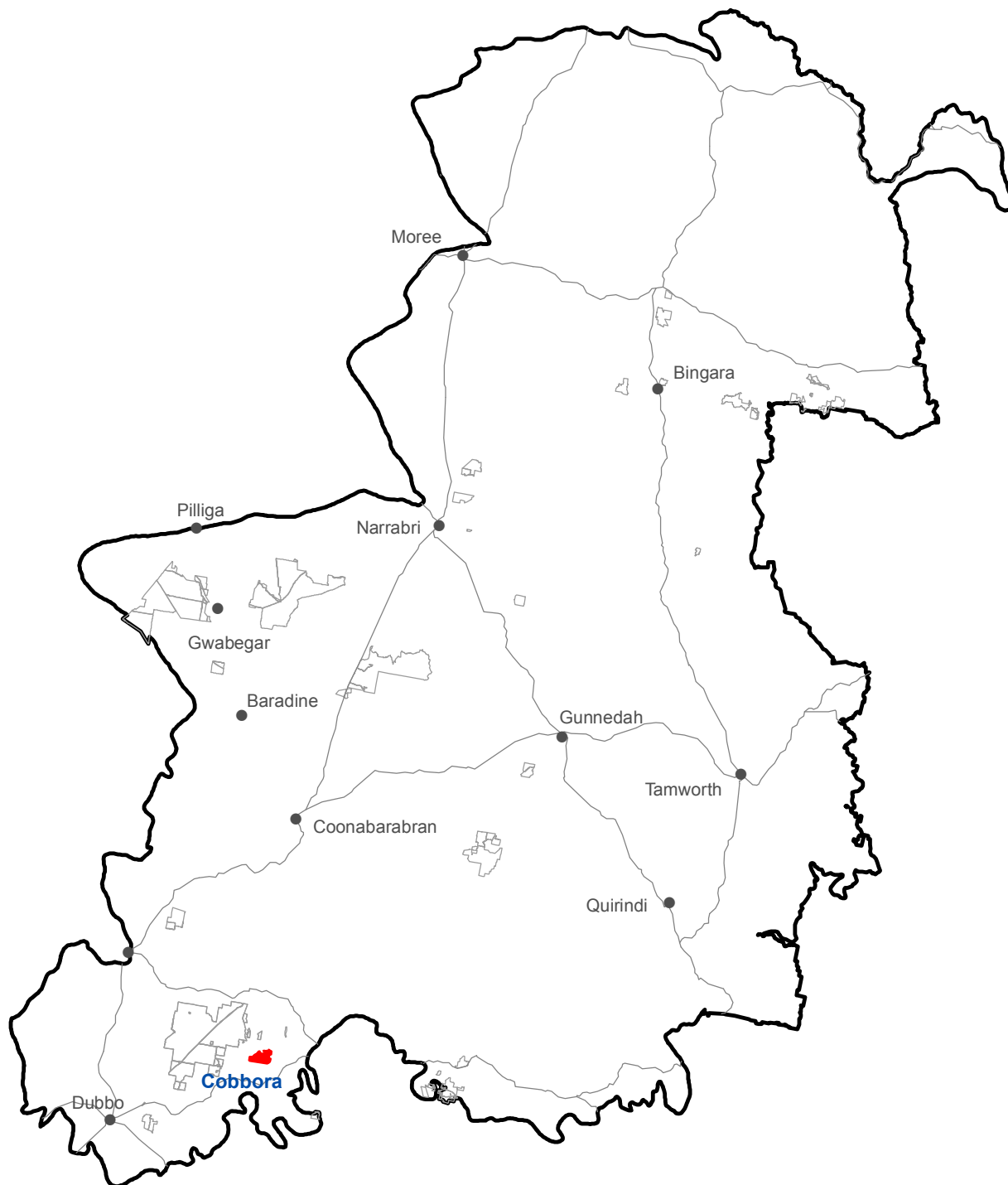
| Fire history | Prescribed burn (hectares) | Wildfire (hectares) |
|-------------------|-------------------------------|------------------------|
| 2008-09 - 2012-13 | - | - |

| Mining | Number of titles |
|-------------|---------------------|
| Exploration | 1 coal, 1 petroleum |
| Application | none |

| Apiarist sites |
|----------------|
| None |

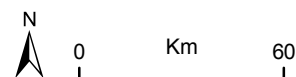
Cobbora State Conservation Area (2,261 hectares)

Location



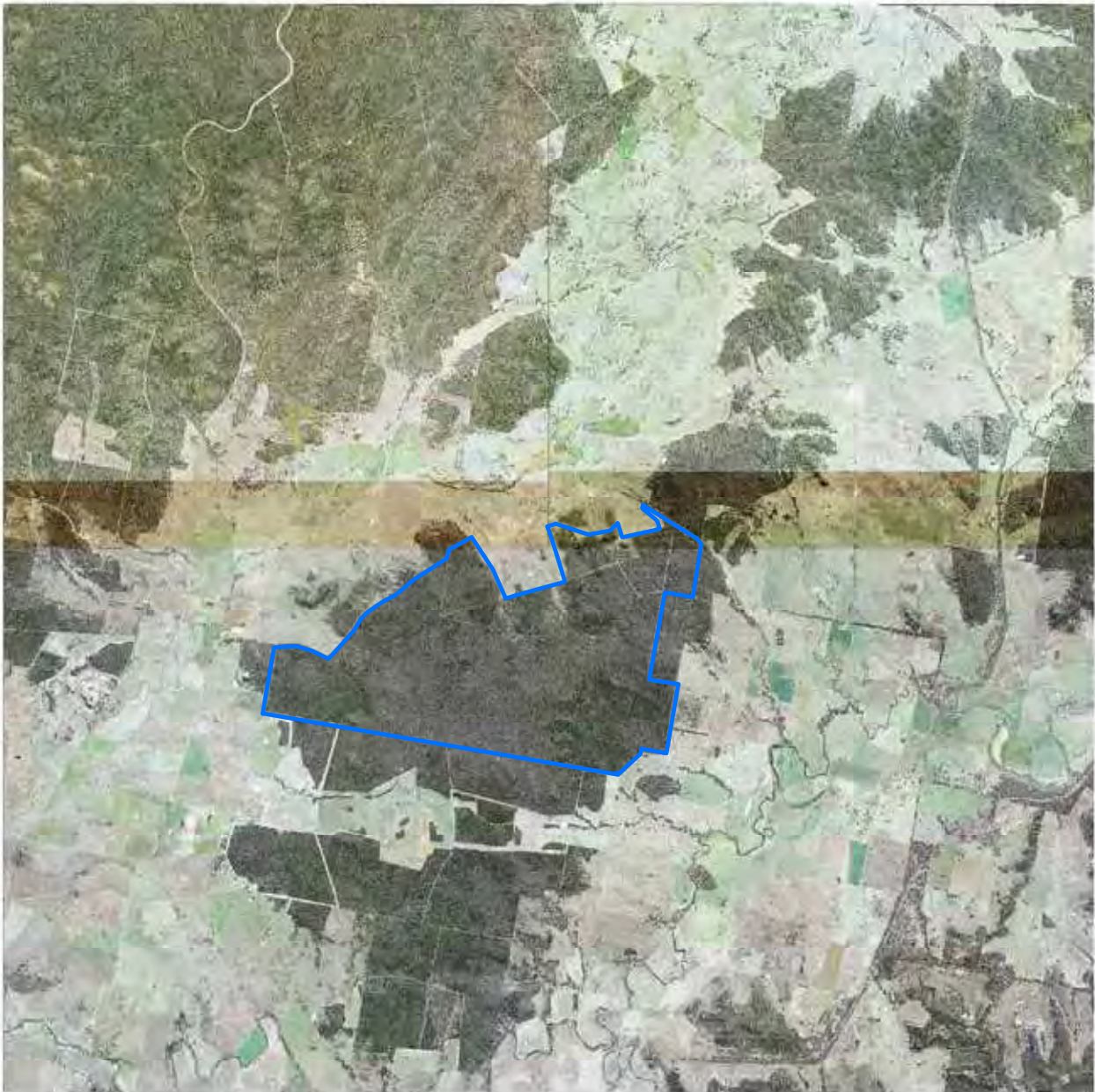
- Cobbora State Conservation Area
- Other Zone 3 State Conservation Areas


Spatial data courtesy of Office of Environment and Heritage.



Cobbora State Conservation Area

Aerial



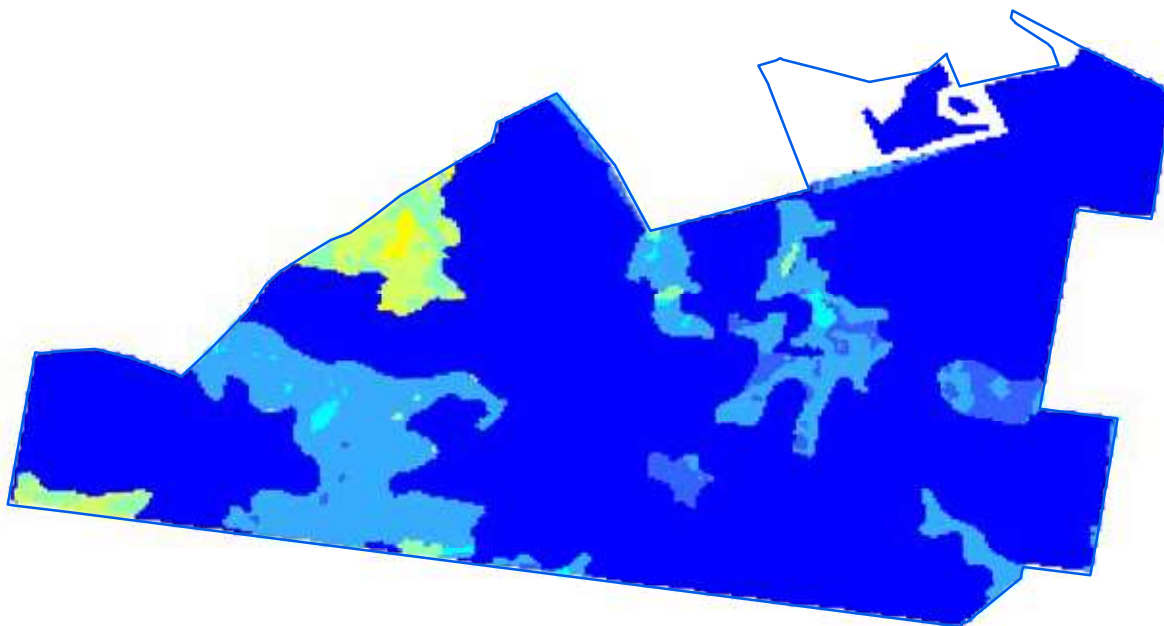
 Cobbora State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Cobbora State Conservation Area

Predicted location - white cypress pine

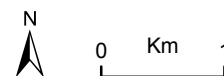


Relative probability (%) of white cypress pine occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- 80 - 90
- 90 - 100

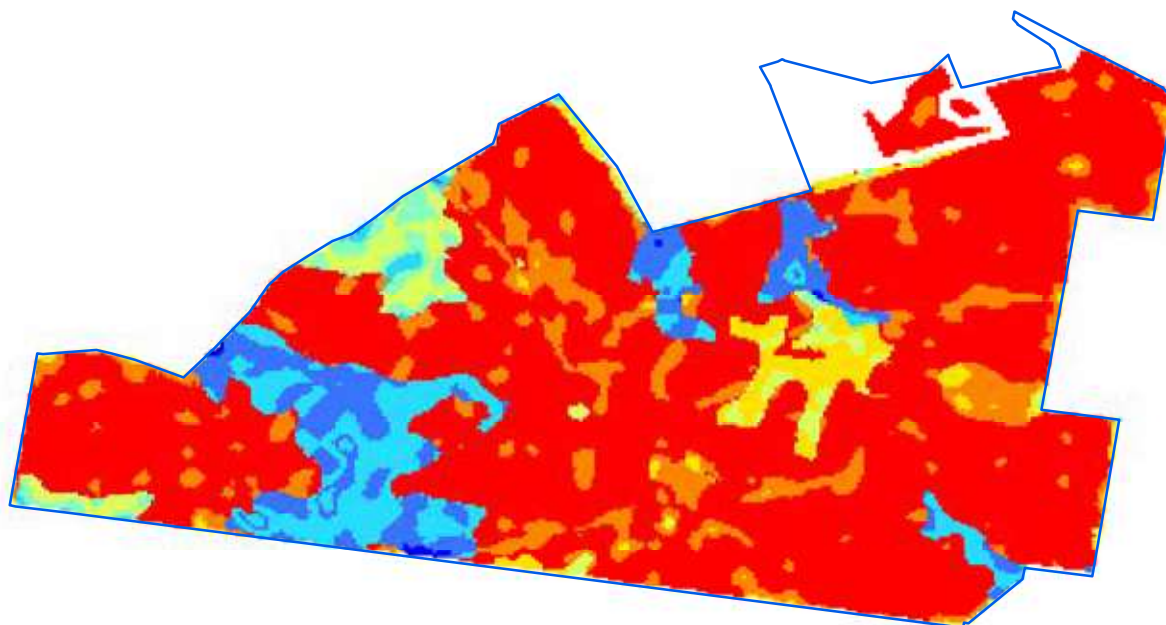
□ Cobbora State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.

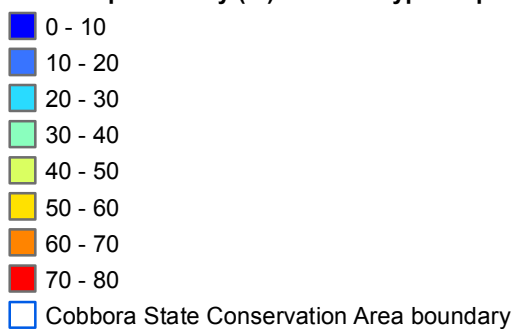


Cobbora State Conservation Area

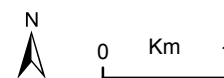
Predicted location - black cypress pine



Relative probability (%) of black cypress pine occurrence

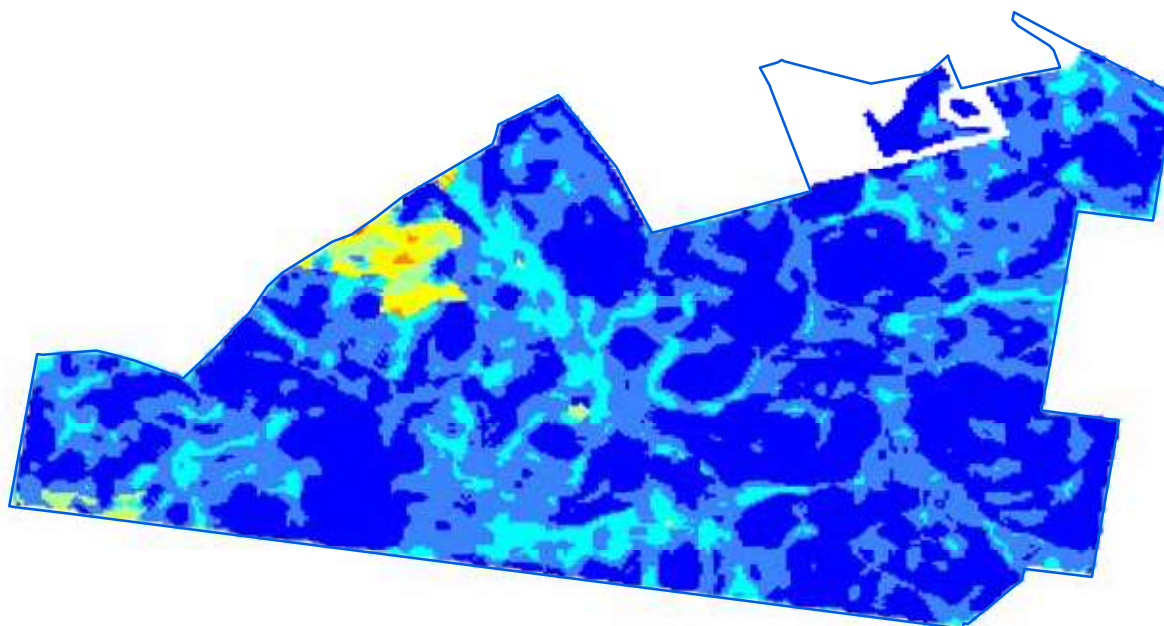


Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Cobbora State Conservation Area

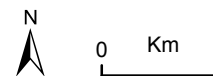
Predicted location - bulloak



Relative probability (%) of bulloak occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- Cobbora State Conservation Area boundary


Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Cobbora State Conservation Area

Continuous canopy density surface - cypress pine



 More dense canopy
Less dense canopy

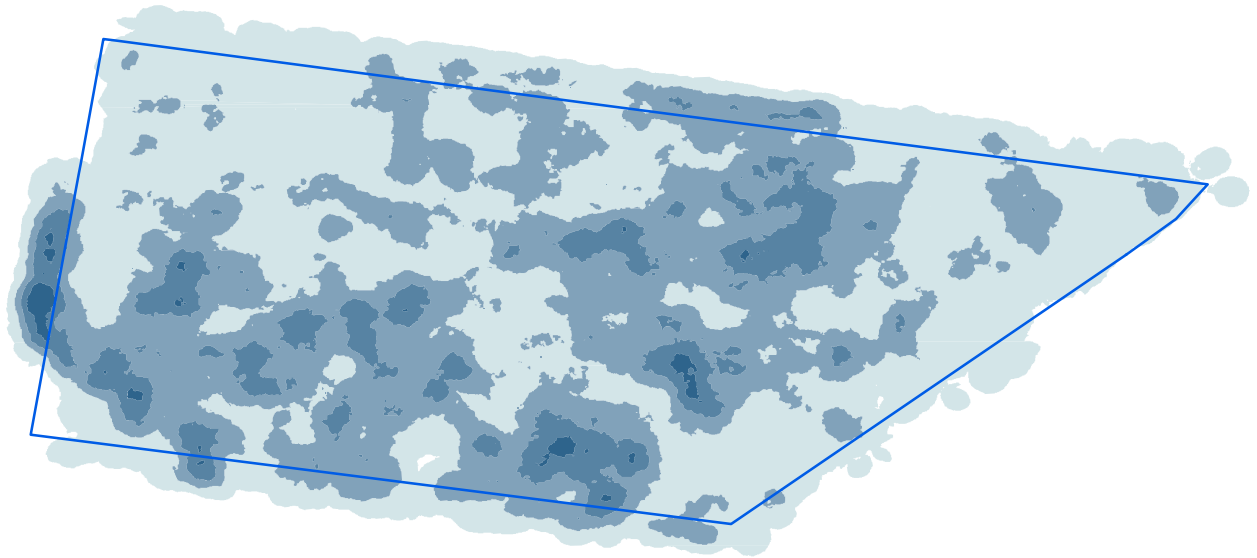
 Bullawa Creek State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Cobbora State Conservation Area

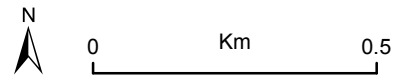
Discrete canopy density classes - cypress pine



Canopy density classes

- Class 0 (little or no cypress pine detected)
- Density slice range 1 to 10
- Density slice range 10 to 20
- Density slice range 20 to 30
- Density slice range 30 to 100
- Bullawa Creek State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Cobbora State Conservation Area

Summary statistics - spatial analysis

| Area of cypress canopy classes (excludes areas affected by wildfire since 2009) | |
|---|------------------|
| Class | Total (hectares) |
| Class 0 (little or no cypress detected) | 794 |
| Class 1 (1-10 percent) | 1,273 |
| Class 2 (11-20 percent) | 234 |
| Class 3 (21-30 percent) | 24 |
| Class 4 (>31 percent) | 3 |

| Issues and confidence levels for ADS40 spatial products | | |
|---|--------|-------------------|
| ADS40 image quality | Issues | Confidence levels |
| Medium-high | - | Higher |

Cobbora State Conservation Area

Summary statistics - general

| Lindsay type | Area (hectares) | Proportion of total (%) |
|--------------|-----------------|-------------------------|
| Not typed | 2,261 | - |

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|--|--------------------------|-----------------------|
| VCA 467: Blue-leaved Ironbark - Black Cypress Pine shrubby sandstone open forest in the southern Brigalow Belt South Bioregion (including Goonoo) | - | - |
| VCA 473: Red gum - Rough-barked Apple - Narrow-leaved Ironbark - cypress pine grassy open forest on flats and drainage lines in the Goonoo and surrounding forests, southern Brigalow Belt South Bioregion | - | - |
| VCA 440: Red Stringybark - Narrow-leaved Ironbark - Black Cypress Pine - hill red gum sandstone woodland of southern NSW Brigalow Belt South Bioregion | - | - |
| VCA 281: Rough-Barked Apple - red gum - Yellow Box woodland on alluvial clay to loam soils on valley flats in the northern NSW South West Cypress and Brigalow Belt South Bioregions | yes | yes |
| VCA 469: White Cypress Pine - Narrow-leaved Ironbark - Buloke grassy open forest of the Dubbo region, southern Brigalow Belt South Bioregion | - | - |

¹ NSW *Threatened Species Conservation Act 1995*

² Australian Government *Environment Protection and Biodiversity Conservation Act 1999*

| Native species recorded | | Number | |
|----------------------------------|-----------------------|--------------------------|-----------------------|
| Flora | | 231 | |
| Fauna | | 98 | |
| Threatened species | | | |
| Scientific name | Common name | NSW TSC Act ¹ | EPBC Act ² |
| Flora | | | |
| <i>Zieria ingramii</i> | Keith's zieria | E1 | E |
| <i>Philotheca ericifolia</i> | - | - | V |
| Fauna | | | |
| <i>Calyptorhynchus lathami</i> | Glossy black-cockatoo | V | - |
| <i>Ninox connivens</i> | Barking owl | V | - |
| <i>Chthonicola sagittata</i> | Speckled warbler | V | - |
| <i>Daphoenositta chrysoptera</i> | Varied sittella | V | - |

| Cultural heritage - Aboriginal and non-Aboriginal | Number of sites |
|---|-----------------|
| AHIMS registered sites | 0 |
| Heritage items or places of historic significance | 0 |

| Current management plans | Status |
|-----------------------------------|--------------------------------|
| Plan of management | no |
| Fire management strategy | no |
| Regional pest management strategy | Northern plains region 2012-17 |

Cobbora State Conservation Area

Summary statistics - general

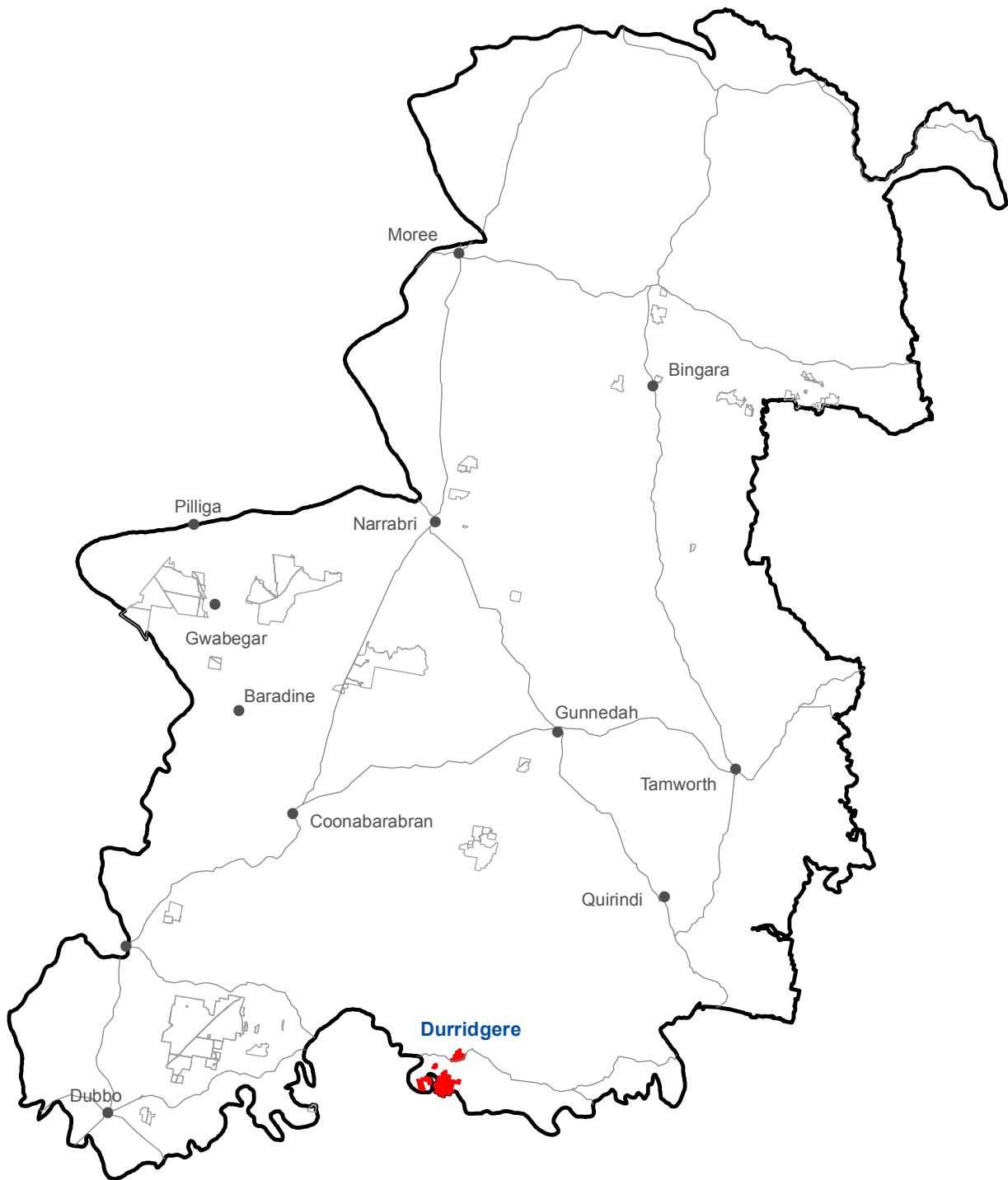
| Fire history | Prescribed burn (hectares) | Wildfire (hectares) |
|--------------|-------------------------------|------------------------|
| 2011-12 | 9 | - |

| Mining | Number of titles |
|-------------|---------------------|
| Exploration | 1 coal, 1 petroleum |
| Application | none |

| Apiarist sites |
|----------------|
| None |

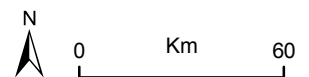
Durridgere State Conservation Area (6,172 hectares)

Location



- Durridgere State Conservation Area
- Other Zone 3 State Conservation Areas


Spatial data courtesy of Office of Environment and Heritage.



Durridgere State Conservation Area

Aerial



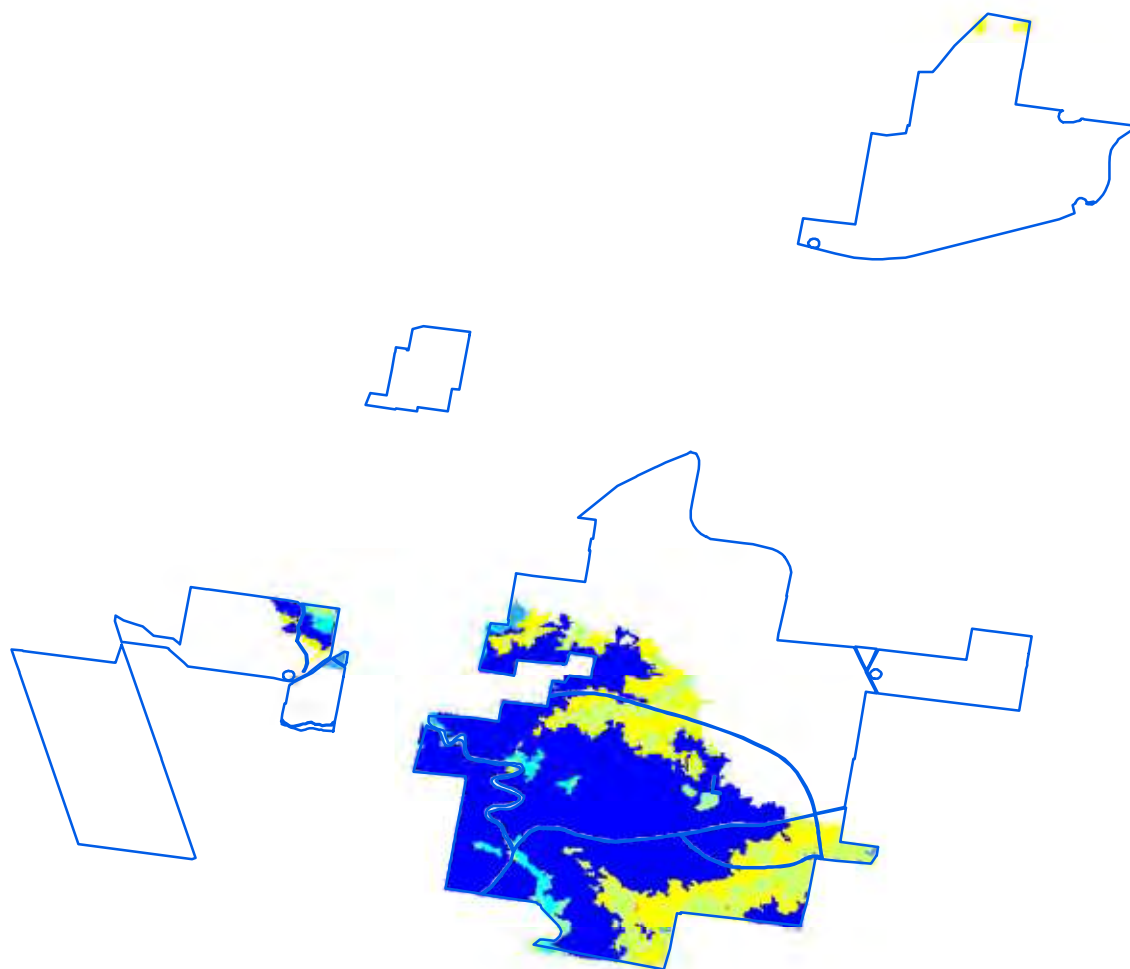
 Durridgere State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).

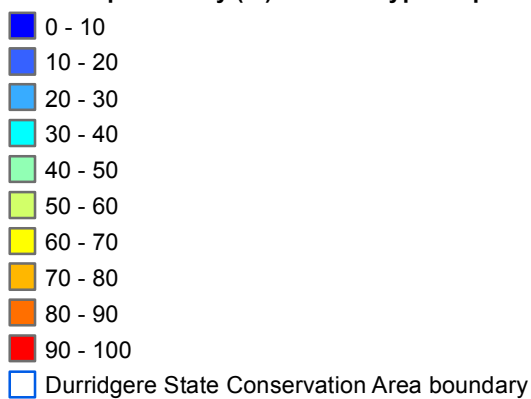


Durridgere State Conservation Area

Predicted location - white cypress pine



Relative probability (%) of white cypress pine occurrence

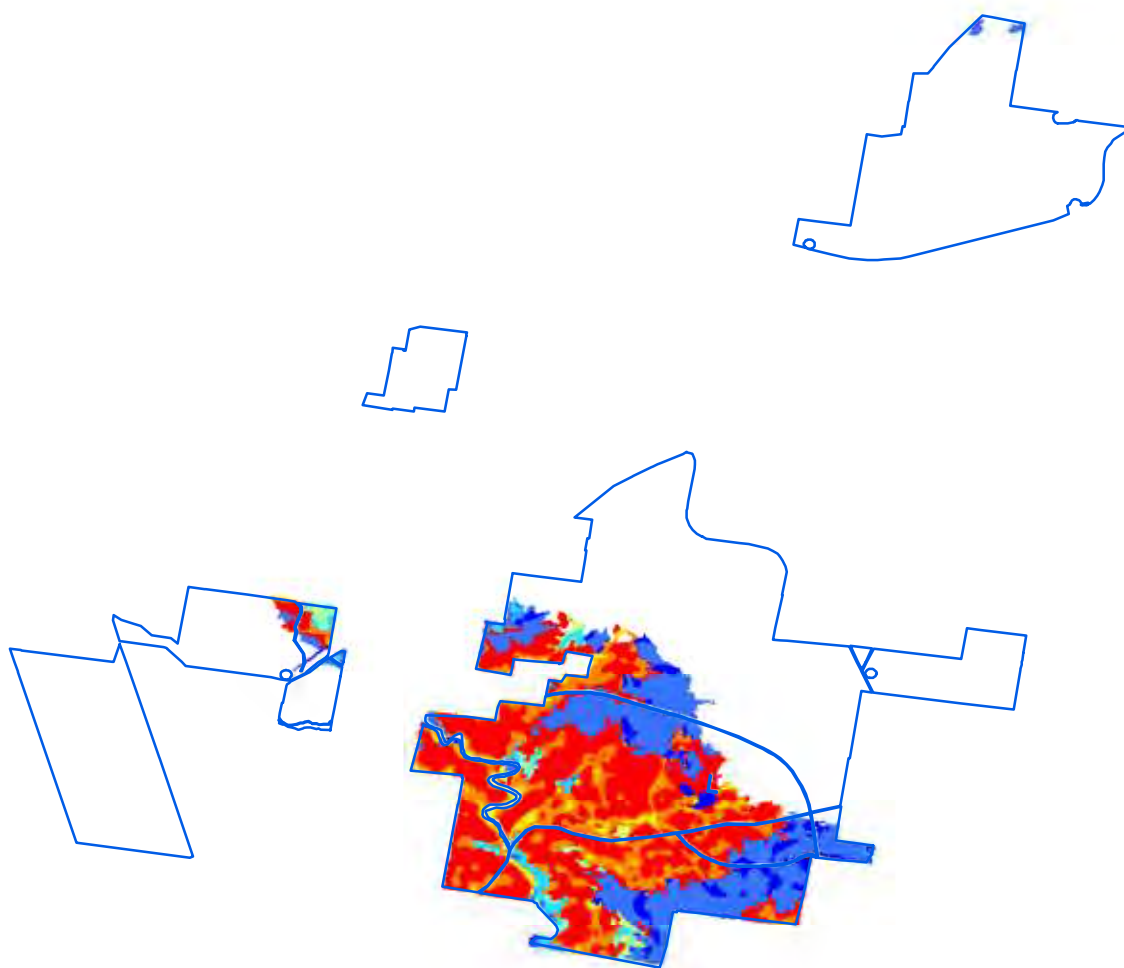


Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Durridgere State Conservation Area

Predicted location - black cypress pine



Relative probability (%) of black cypress pine occurrence

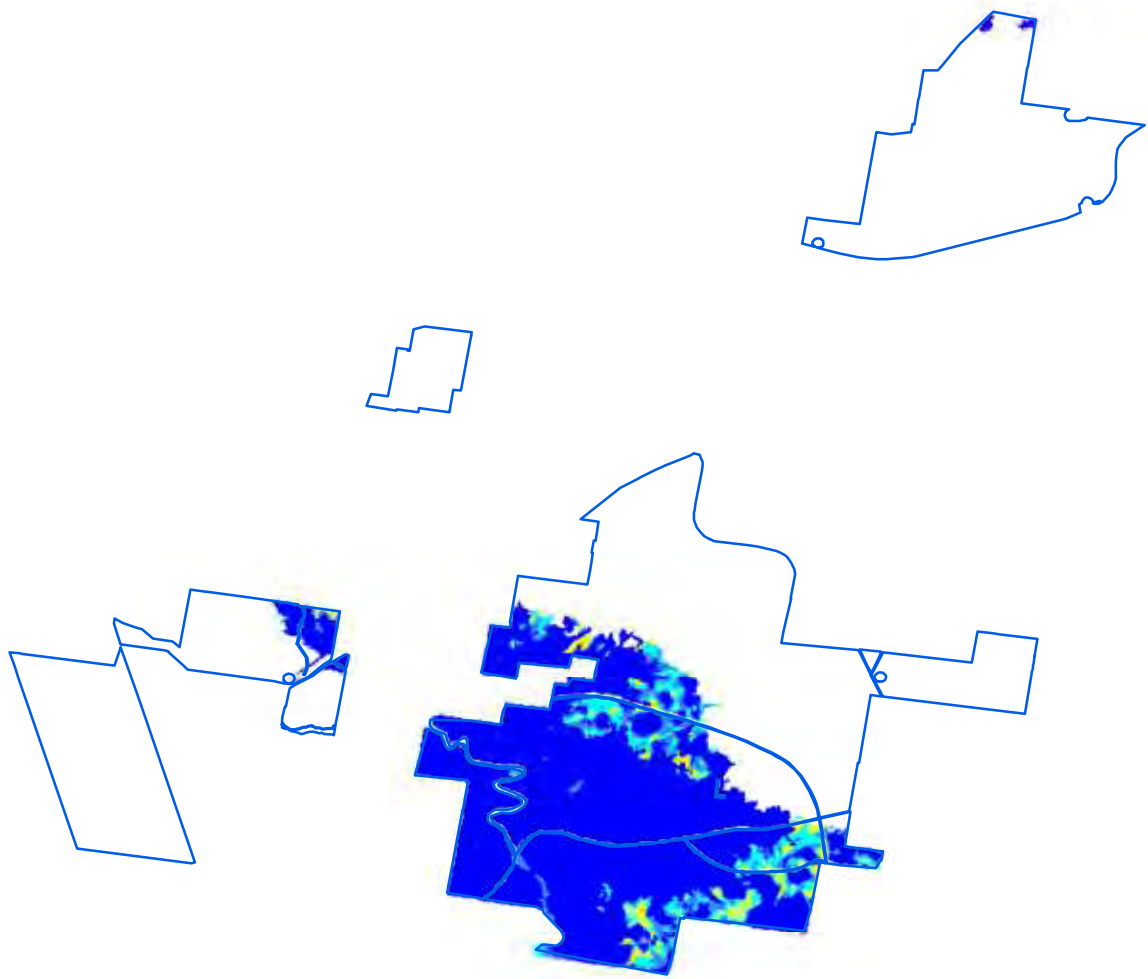
- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- Durridgere State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.

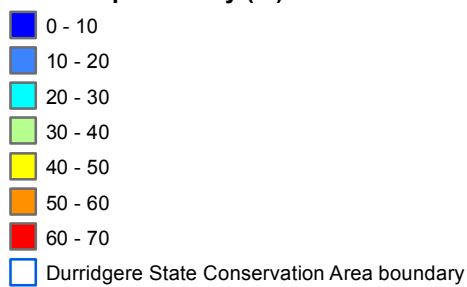


Durridgere State Conservation Area

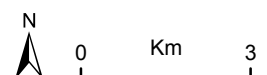
Predicted location - bulloak



Relative probability (%) of bulloak occurrence





Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.




Durridgere State Conservation Area

Continuous canopy density surface - cypress pine



 More dense canopy
 Less dense canopy

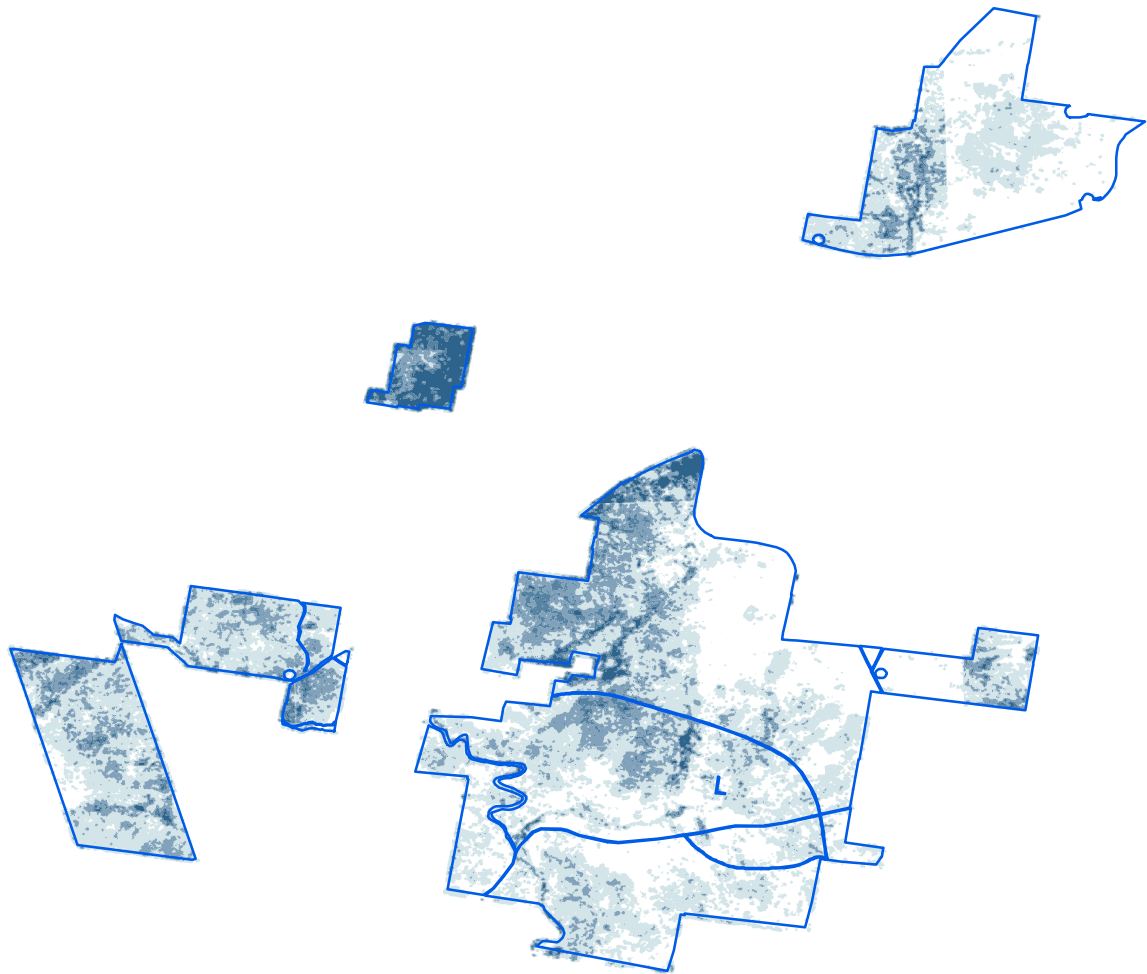
 Durridgere State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Durridgere State Conservation Area

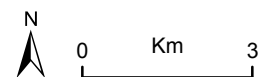
Discrete canopy density classes - cypress pine



Canopy density classes

- Class 0 (little or no cypress pine detected)
- Density slice range 1 to 10
- Density slice range 10 to 20
- Density slice range 20 to 30
- Density slice range 30 to 100
- Durridgere State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Durridgere State Conservation Area

Summary statistics - spatial analysis

| Area of cypress canopy classes (excludes areas affected by wildfire since 2009) | |
|---|------------------|
| Class | Total (hectares) |
| Class 0 (little or no cypress detected) | 2,680 |
| Class 1 (1-10 percent) | 2,826 |
| Class 2 (11-20 percent) | 970 |
| Class 3 (21-30 percent) | 301 |
| Class 4 (>31 percent) | 216 |

| Issues and confidence levels for ADS40 spatial products | | |
|---|---|-------------------|
| ADS40 image quality | Issues | Confidence levels |
| Medium-high | Image classification and mapping includes other species | Lower |

Durridgere State Conservation Area

Summary statistics - general

| Lindsay type | Area (hectares) | Proportion of total (%) |
|--------------|-----------------|-------------------------|
| Not typed | 6,134 | - |

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|--|--------------------------|-----------------------|
| VCA 480: Black Cypress Pine - ironbark -/+ Narrow-leaved Wattle low open forest mainly on Narrabeen Sandstone in the Upper Hunter region of the Sydney Basin Bioregion | - | - |
| VCA 467: Blue-leaved Ironbark - Black Cypress Pine shrubby sandstone open forest in the southern Brigalow Belt South Bioregion (including Goonoo) | - | - |
| VCA 477: Inland Scribbly Gum - Red Stringybark - Black Cypress Pine - Red Ironbark open forest on sandstone hills in the southern Brigalow Belt South and northern NSW South West Cypress Bioregions | - | - |
| VCA 482: Mugga Ironbark - Black Cypress Pine shrub/grass open forest of the upper Hunter Valley, mainly Sydney Basin Bioregion | - | - |
| VCA 479: Narrow-leaved Ironbark- Black Cypress Pine - stringybark +/- Grey Gum +/- Narrow-leaved Wattle shrubby open forest on sandstone hills in the southern Brigalow Belt South - Sydney Basin Bioregions | - | - |
| VCA 478: Red Ironbark - Black Cypress Pine - stringybark -/+ Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong - Mendooran region, southern Brigalow Belt South Bioregion | - | - |
| VCA 440: Red Stringybark - Narrow-leaved Ironbark - Black Cypress Pine - hill red gum sandstone woodland of southern NSW Brigalow Belt South Bioregion | - | - |
| VCA 481: Rough-barked Apple - Blakely's Red Gum - Narrow-leaved Stringybark +/- Grey Gum sandstone riparian grass fern open forest on in the southern Brigalow Belt South and Upper Hunter regions | - | - |

¹ NSW *Threatened Species Conservation Act 1995*

² Australian Government *Environment Protection and Biodiversity Conservation Act 1999*

| Native species recorded | | Number | |
|-------------------------|-------------|--------------------------|-----------------------|
| Flora | | - | |
| Fauna | | - | |
| Threatened species | | | |
| Scientific name | Common name | NSW TSC Act ¹ | EPBC Act ² |
| Flora | | | |
| - | - | - | - |
| Fauna | | | |
| - | - | - | - |

| Cultural heritage - Aboriginal and non-Aboriginal | Number of sites |
|---|-----------------|
| AHIMS registered sites | 19 |
| Heritage items or places of historic significance | 2 |

| Current management plans | Status |
|-----------------------------------|-------------------------------|
| Plan of management | no |
| Fire management strategy | June 2009 |
| Regional pest management strategy | Blue Mountains region 2012-17 |

Durridgere State Conservation Area

Summary statistics - general

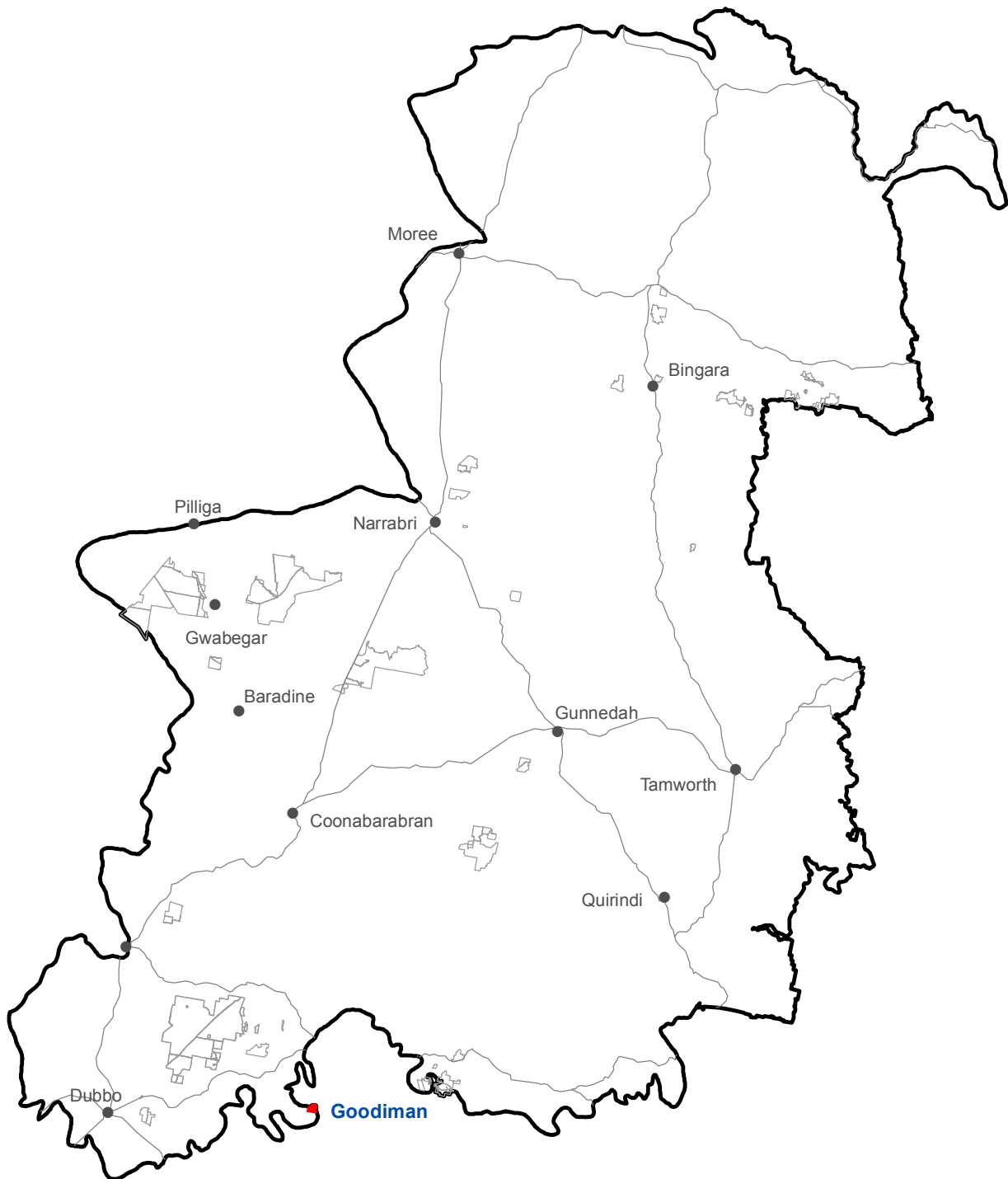
| Fire history | Prescribed burn (hectares) | Wildfire (hectares) |
|--------------|-------------------------------|------------------------|
| 2006-07 | 347 | - |
| 2007-08 | 599 | - |
| 2012-13 | 645 | - |

| Mining | Number of titles |
|-------------|--|
| Exploration | 4 coal (1 actively mining), 2 petroleum, 2 mineral |
| Application | none |

| Apiarist sites |
|----------------|
| 6 |

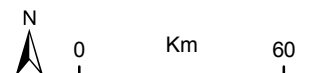
Goodiman State Conservation Area (569 hectares)

Location



- Goodiman CCA Zone 3 State Conservation Area
- Other Zone 3 State Conservation Areas


Spatial data courtesy of Office of Environment and Heritage.



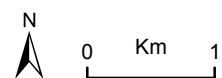
Goodiman State Conservation Area

Aerial



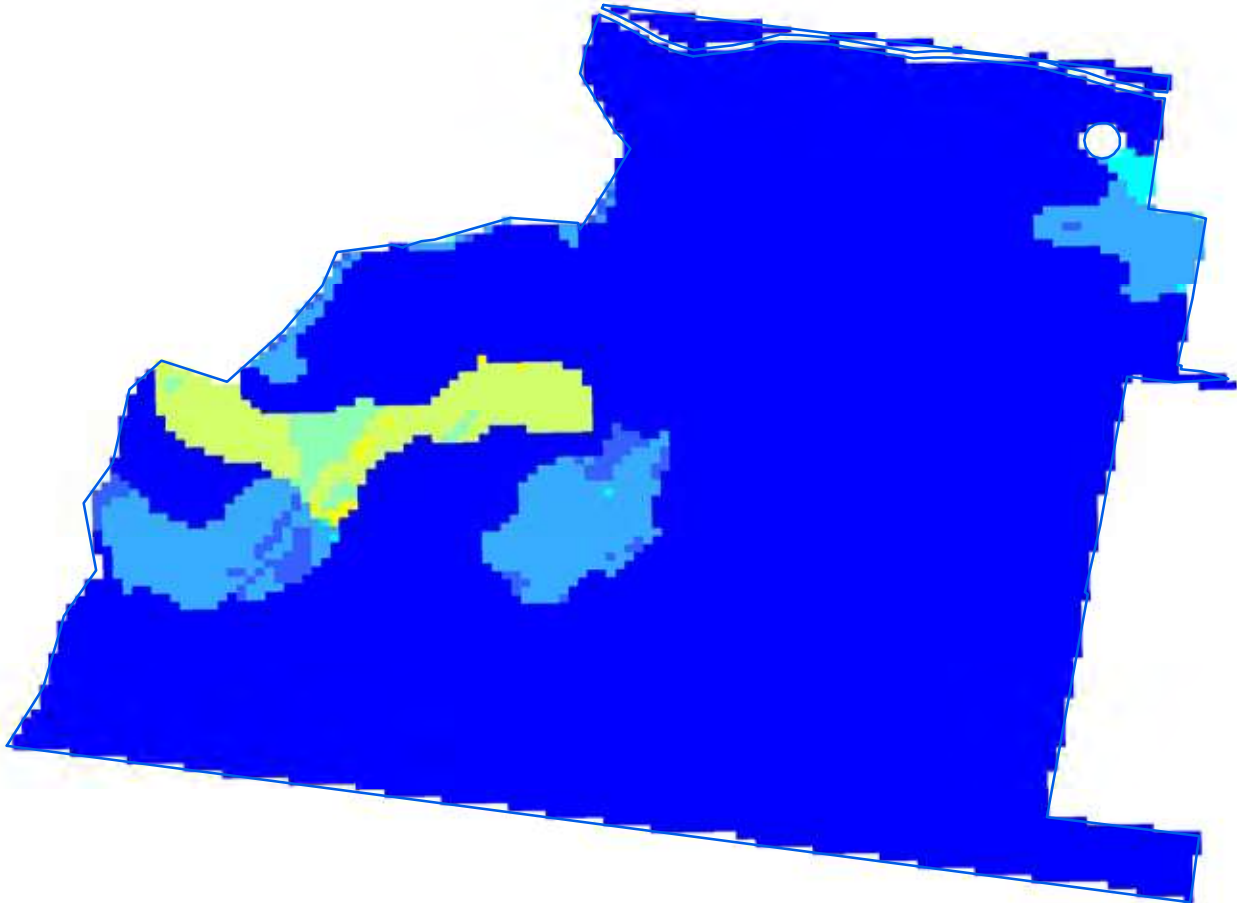
 Goodiman State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Goodiman State Conservation Area

Predicted location - white cypress pine



Relative probability (%) of white cypress pine occurrence

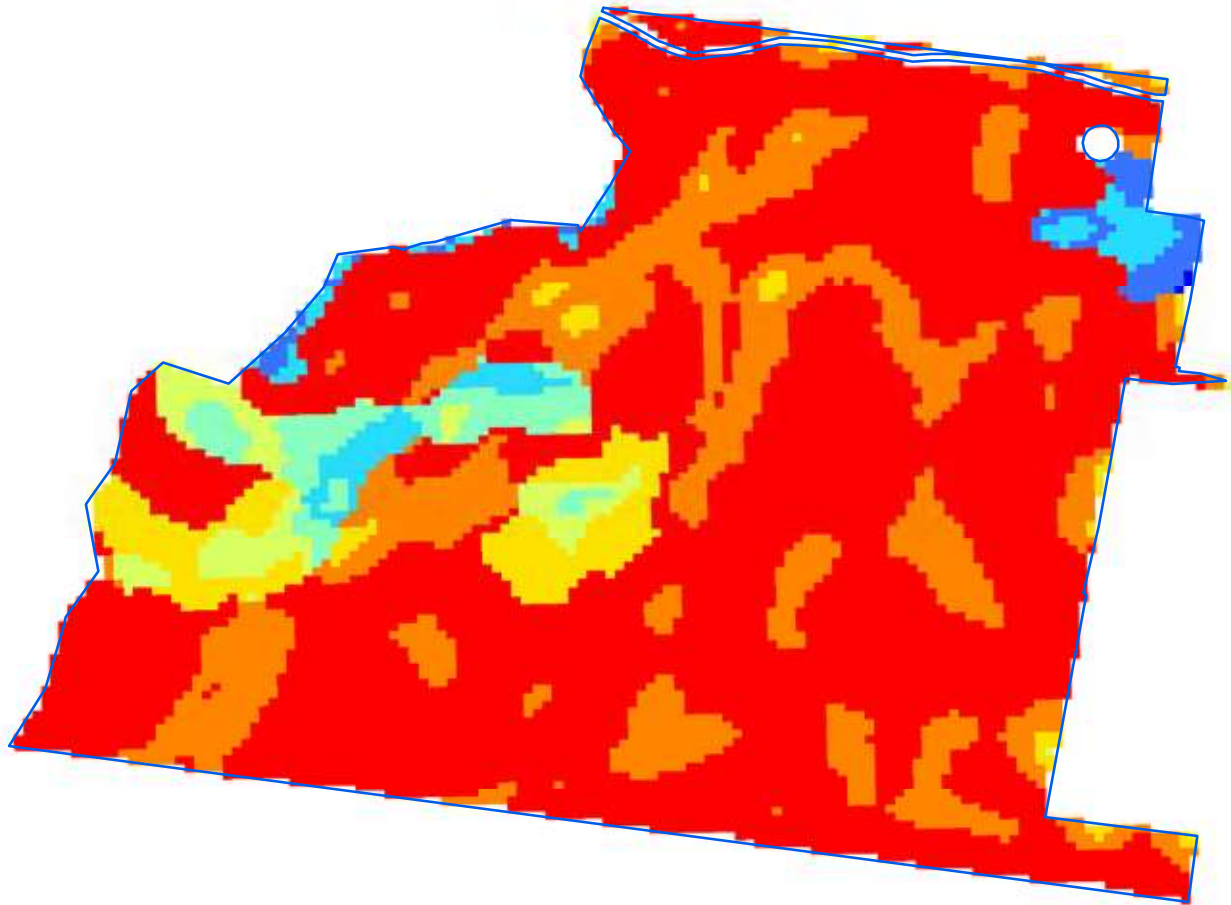
- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- 80 - 90
- 90 - 100
- Goodiman State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Goodiman State Conservation Area

Predicted location - black cypress pine



Relative probability (%) of black cypress pine occurrence

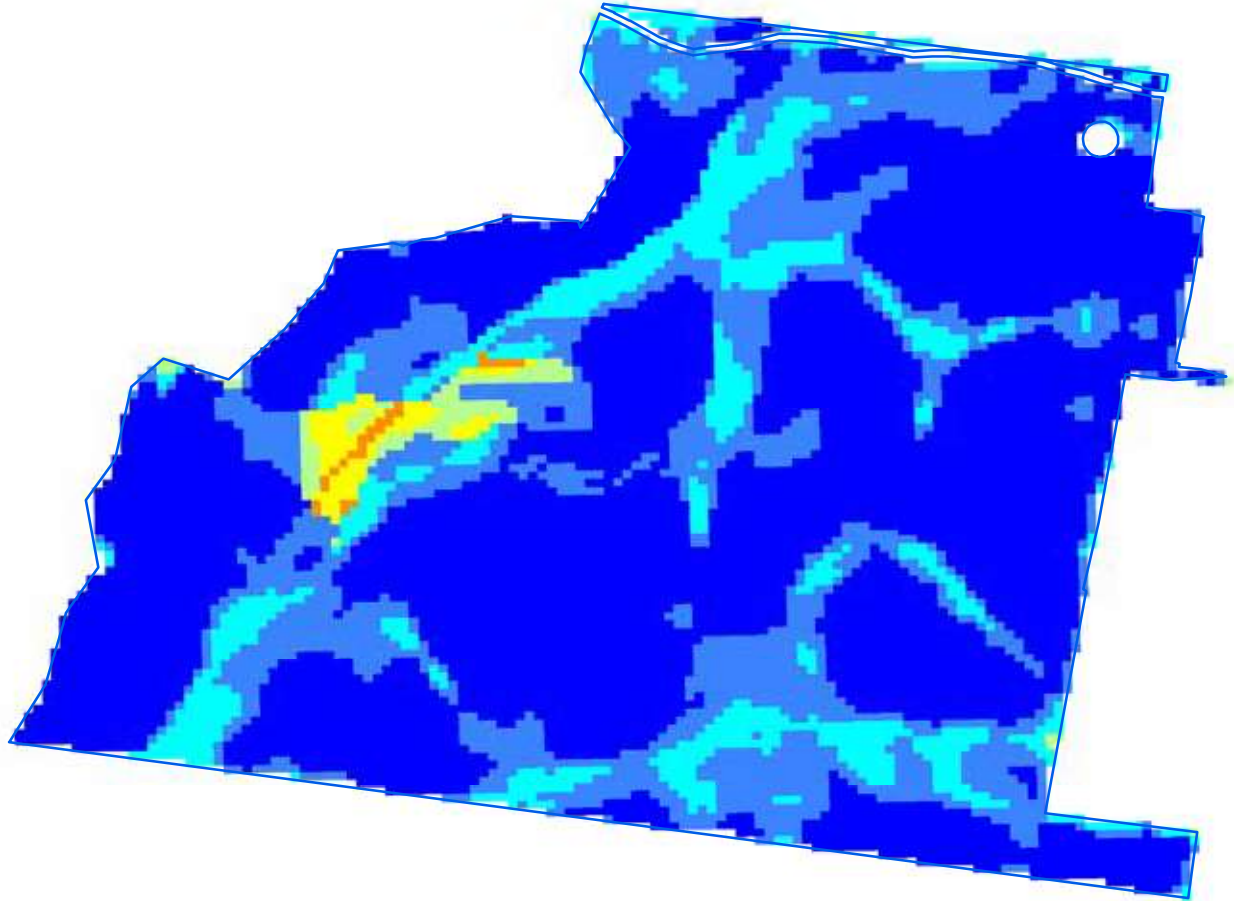
- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- Goodiman State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.

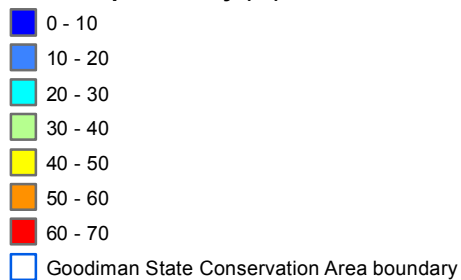


Goodiman State Conservation Area

Predicted location - bulloak



Relative probability (%) of bulloak occurrence

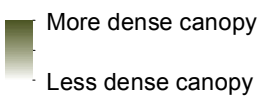
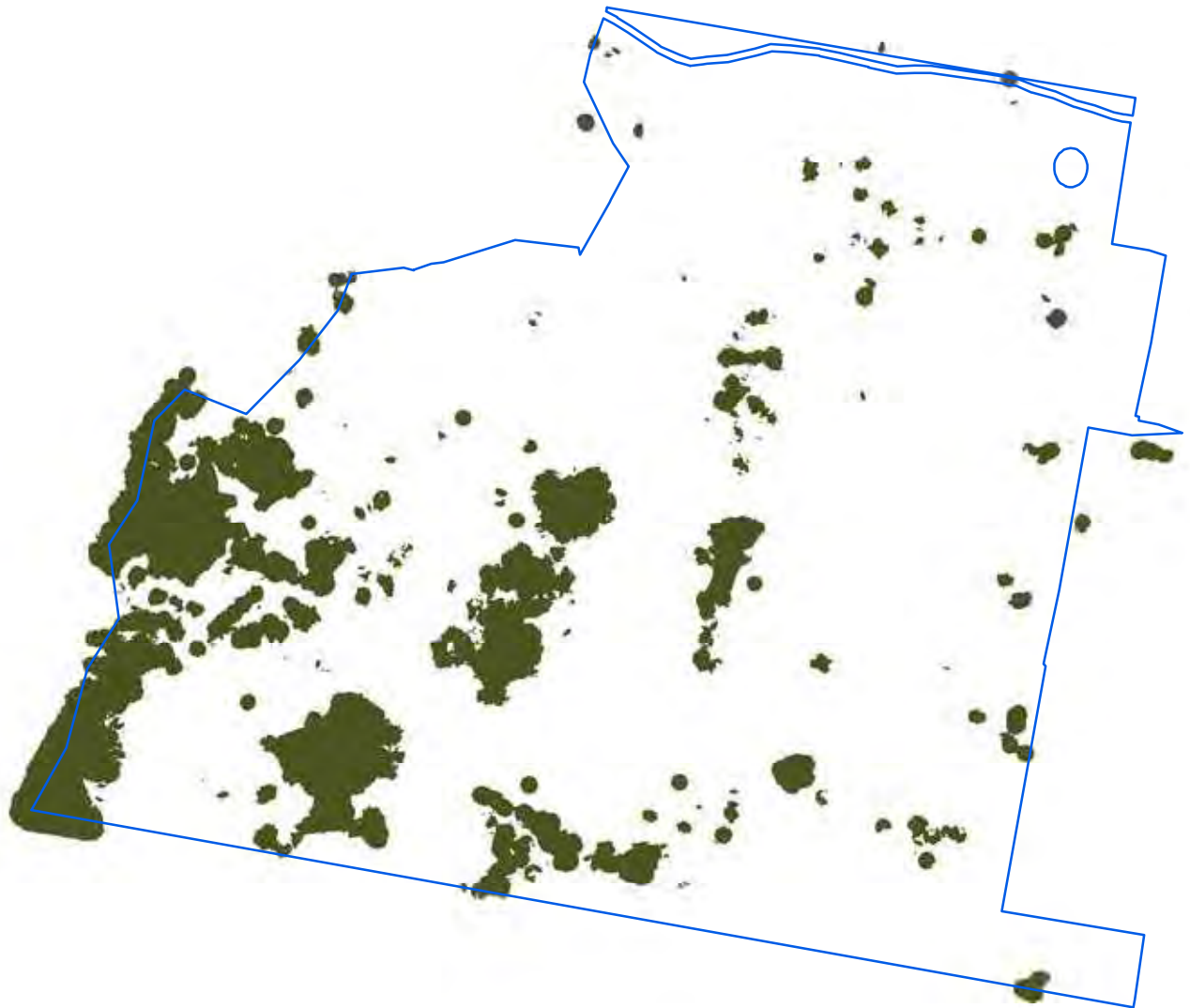



Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Goodiman State Conservation Area

Continuous canopy density surface - cypress pine



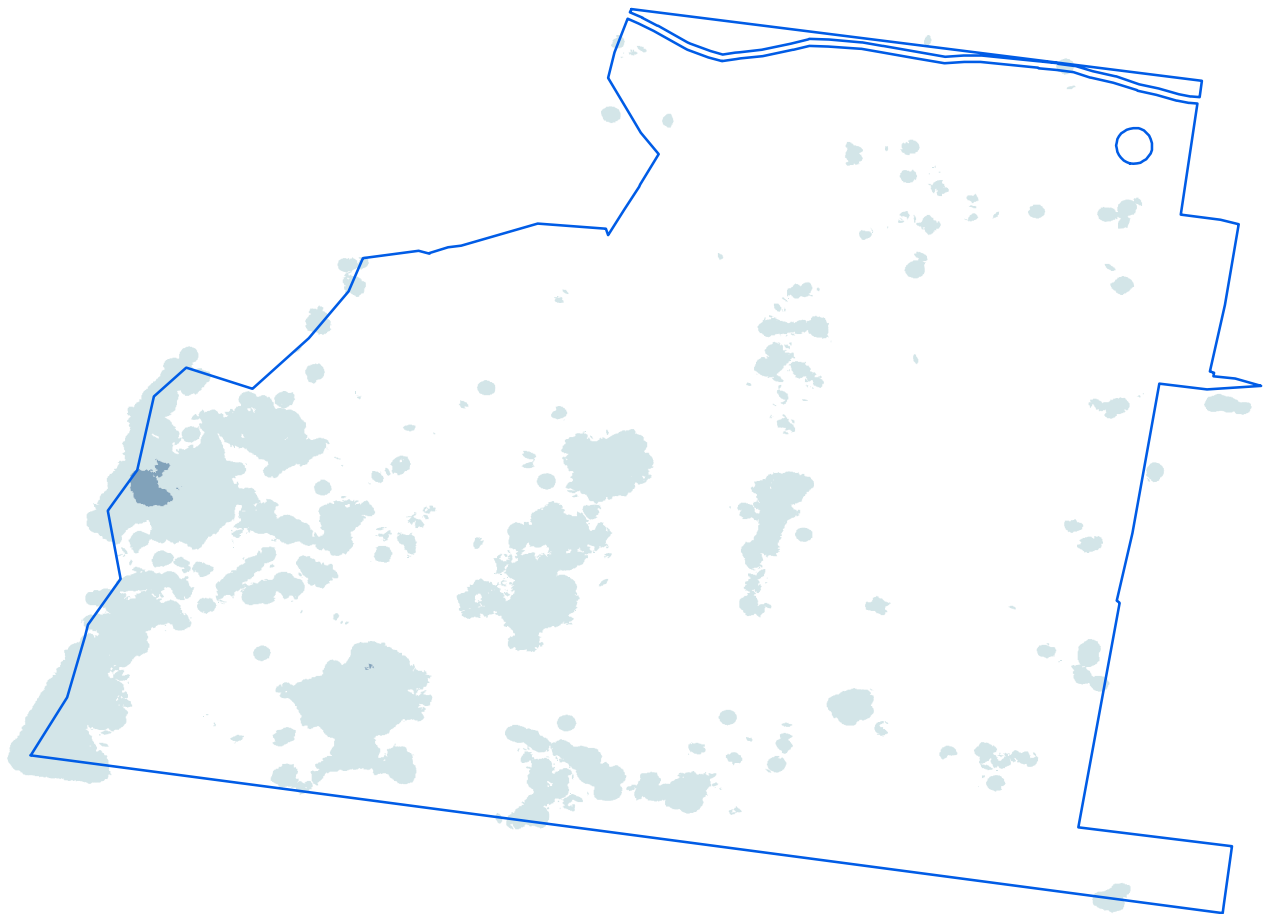
 Goodiman State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Goodiman State Conservation Area

Discrete canopy density classes - cypress pine



Canopy density classes

- Class 0 (little or no cypress pine detected)
- Density slice range 1 to 10
- Density slice range 10 to 20
- Goodiman State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Goodiman State Conservation Area

Summary statistics - spatial analysis

| Area of cypress canopy classes (excludes areas affected by wildfire since 2009) | |
|---|------------------|
| Class | Total (hectares) |
| Class 0 (little or no cypress detected) | 491 |
| Class 1 (1-10 percent) | 86 |
| Class 2 (11-20 percent) | 1 |
| Class 3 (21-30 percent) | 0 |
| Class 4 (>31 percent) | 0 |

| Issues and confidence levels for ADS40 spatial products | | |
|---|--------|-------------------|
| ADS40 image quality | Issues | Confidence levels |
| High | - | Higher |

Goodiman State Conservation Area

Summary statistics - general

| Lindsay types | Area (hectares) | Proportion of total (%) |
|---------------|-----------------|-------------------------|
| Not typed | 565 | - |

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|--|--------------------------|-----------------------|
| VCA 467: Blue-leaved Ironbark - Black Cypress Pine shrubby sandstone open forest in the southern Brigalow Belt South Bioregion (including Goonoo) | - | - |
| VCA 477: Inland Scribbly Gum - Red Stringybark - Black Cypress Pine - Red Ironbark open forest on sandstone hills in the southern Brigalow Belt South and northern NSW South West Cypress Bioregions | - | - |
| VCA 479: Narrow-leaved Ironbark- Black Cypress Pine - stringybark +/- Grey Gum +/- Narrow-leaved Wattle shrubby open forest on sandstone hills in the southern Brigalow Belt South - Sydney Basin Bioregions | - | - |
| VCA 478: Red Ironbark - Black Cypress Pine - stringybark +/- Narrow-leaved Wattle shrubby open forest on sandstone in the Gulgong - Mendooran region, southern Brigalow Belt South Bioregion | - | - |
| VCA 440: Red Stringybark - Narrow-leaved Ironbark - Black Cypress Pine - hill red gum sandstone woodland of southern NSW Brigalow Belt South Bioregion | - | - |
| VCA 281: Rough-Barked Apple - red gum - Yellow Box woodland on alluvial clay to loam soils on valley flats in the northern NSW South West Cypress and Brigalow Belt South Bioregions | yes | yes |
| VCA 461: Tumbledown Gum woodland on hills in the northern NSW South-western Slopes and southern Brigalow Belt South Bioregions | - | - |

¹ NSW *Threatened Species Conservation Act 1995*

² Australian Government *Environment Protection and Biodiversity Conservation Act 1999*

| Native species recorded | | Number | |
|-------------------------|------------------|--------------------------|-----------------------|
| Flora | | 102 | |
| Fauna | | 5 | |
| Threatened species | | | |
| Scientific name | Common name | NSW TSC Act ¹ | EPBC Act ² |
| Flora | | | |
| <i>Acacia ausfeldii</i> | Ausfeld's wattle | V | - |
| Fauna | | | |
| <i>Ninox strenua</i> | Powerful owl | V | - |

| Cultural heritage - Aboriginal and non-Aboriginal | Number of sites |
|---|-----------------|
| AHIMS registered sites | 0 |
| Heritage items or places of historic significance | 0 |

| Current management plans | Status |
|-----------------------------------|--------------------------------|
| Plan of management | no |
| Fire management strategy | June 2009 |
| Regional pest management strategy | Northern plains region 2012-17 |

Goodiman State Conservation Area

Summary statistics - general

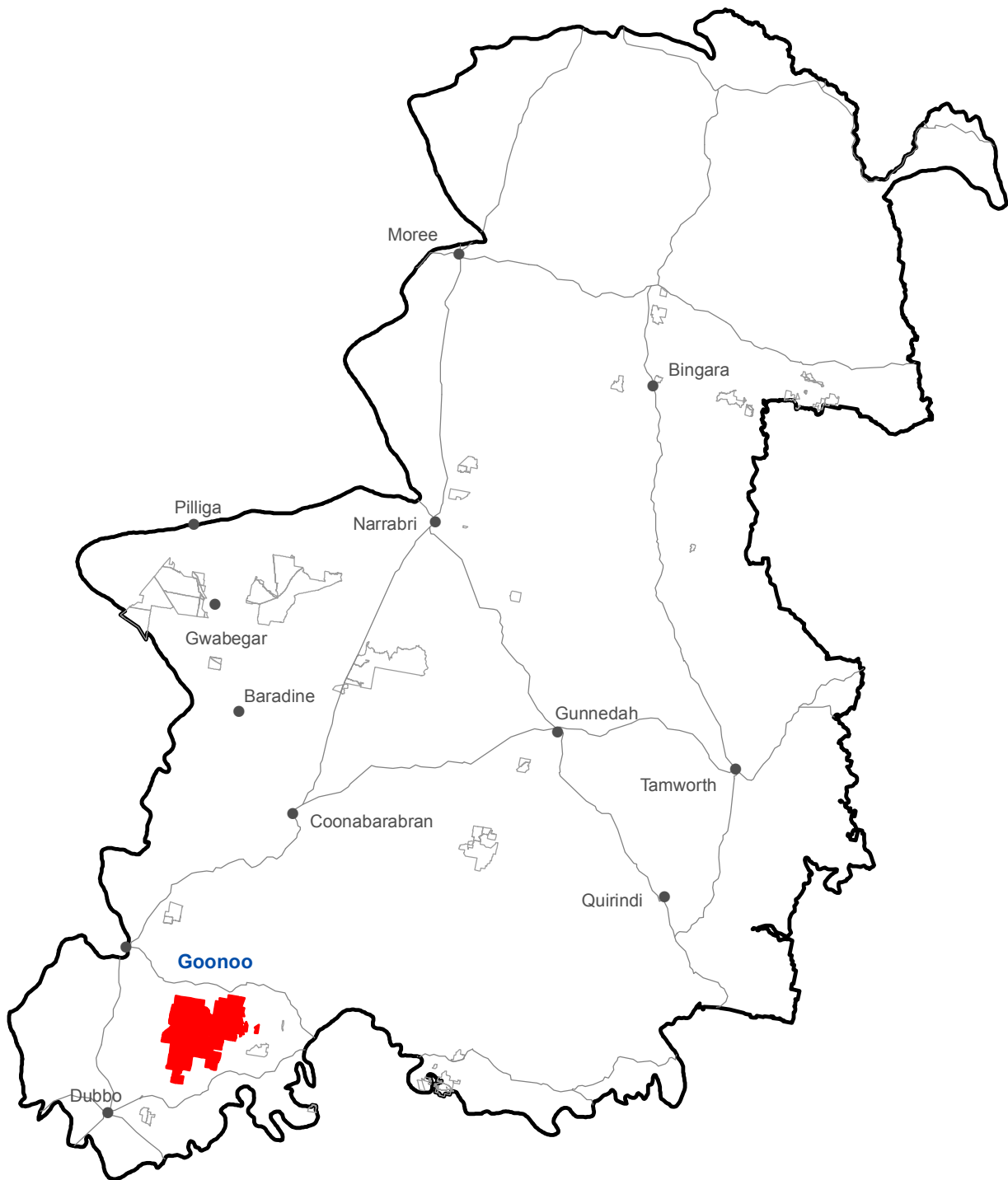
| Fire history | Prescribed burn (hectares) | Wildfire (hectares) |
|--------------|-------------------------------|------------------------|
| 2006-07 | 179 | - |
| 2009-10 | - | 1 |

| Mining | Number of titles |
|-------------|-------------------|
| Exploration | 2 coal, 1 mineral |
| Application | 1 petroleum |

| Apiarist sites |
|----------------|
| None |

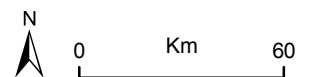
Goonoo State Conservation Area (54,522 hectares)

Location



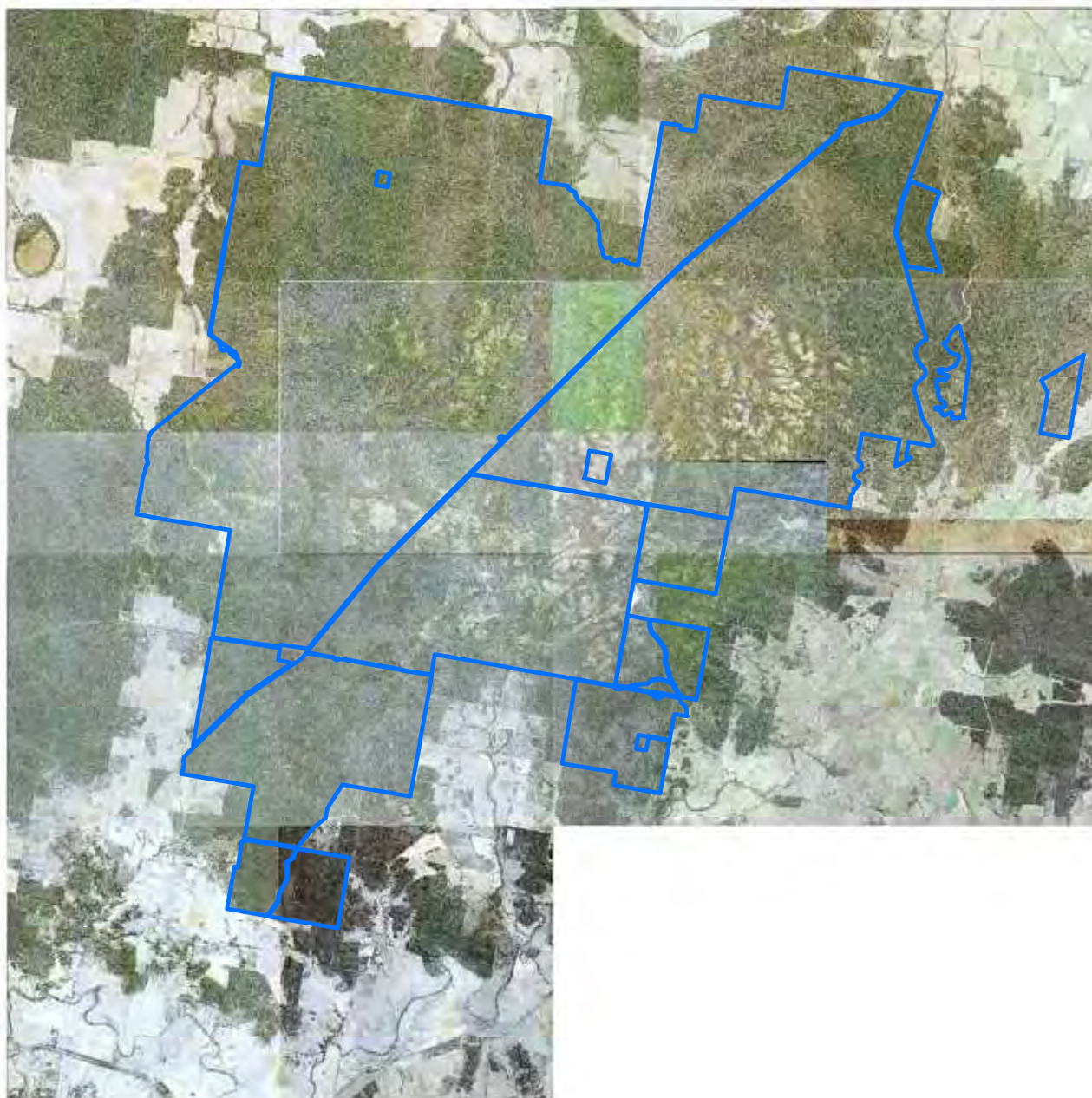
- Goonoo State Conservation Area
- Other Zone 3 State Conservation Areas


Spatial data courtesy of Office of Environment and Heritage.



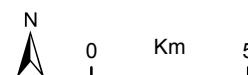
Goonoo State Conservation Area

Aerial



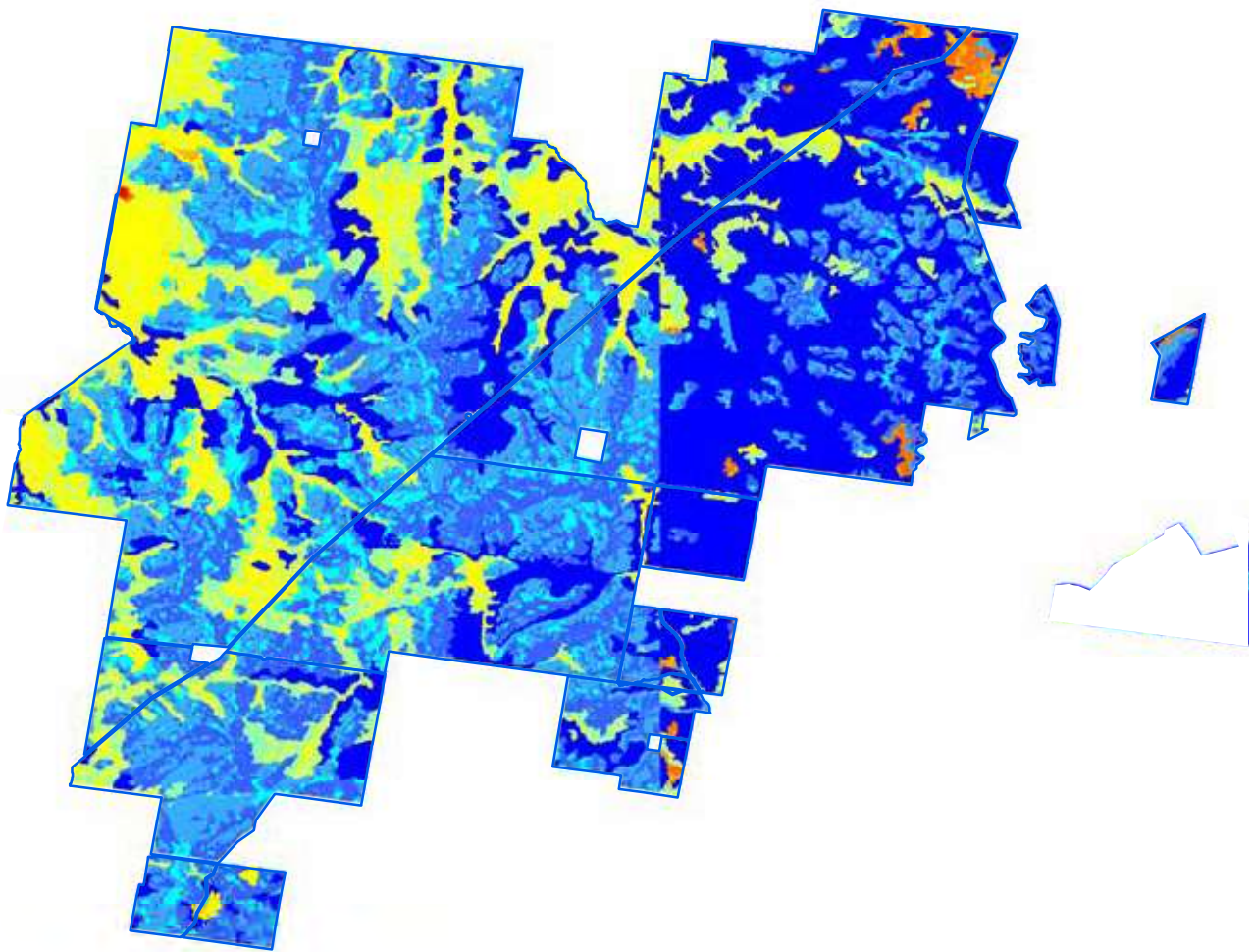
 Goonoo State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Goonoo State Conservation Area

Predicted location - white cypress pine



Relative probability (%) of white cypress pine occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- 80 - 90
- 90 - 100

□ Goonoo State Conservation Area boundary

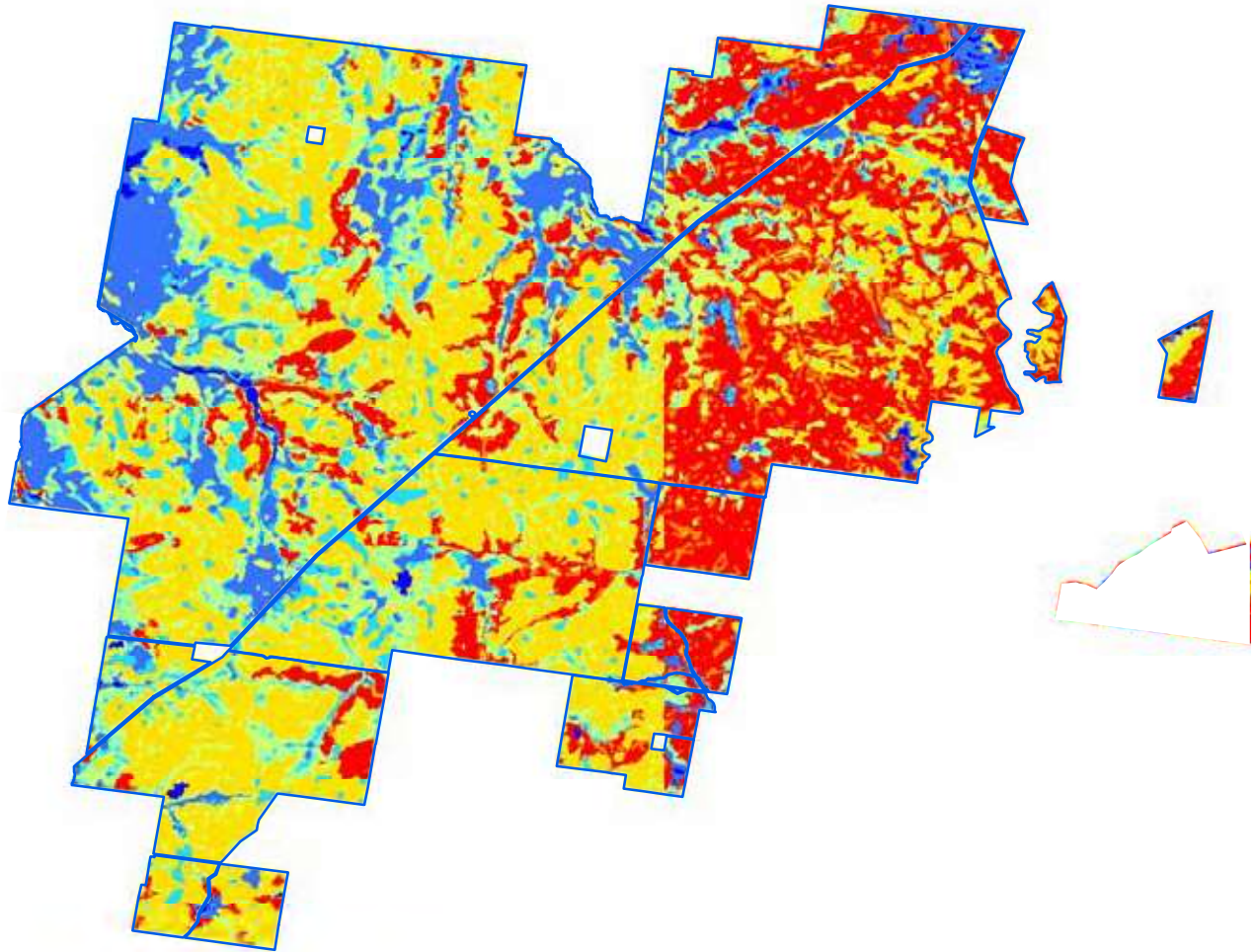
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



0 Km 5

Goonoo State Conservation Area

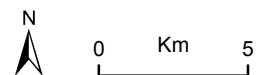
Predicted location - black cypress pine



Relative probability (%) of black cypress pine occurrence

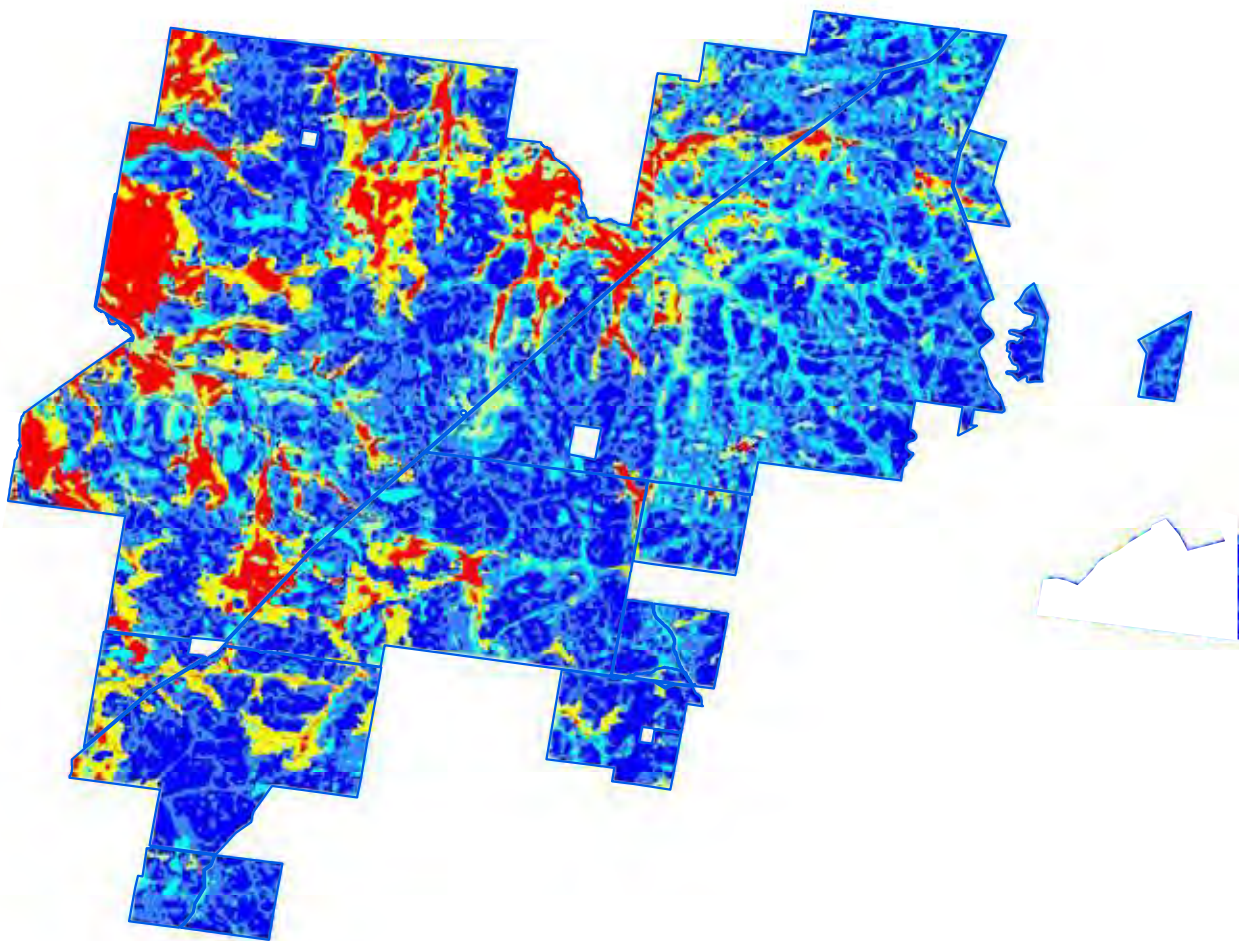
- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- Goonoo State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Goonoo State Conservation Area

Predicted location - bulloak

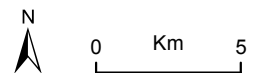


Relative probability (%) of bulloak occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70

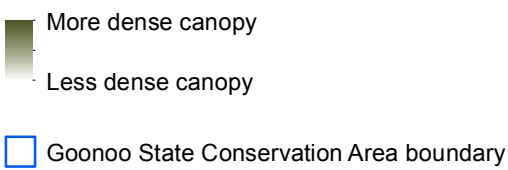
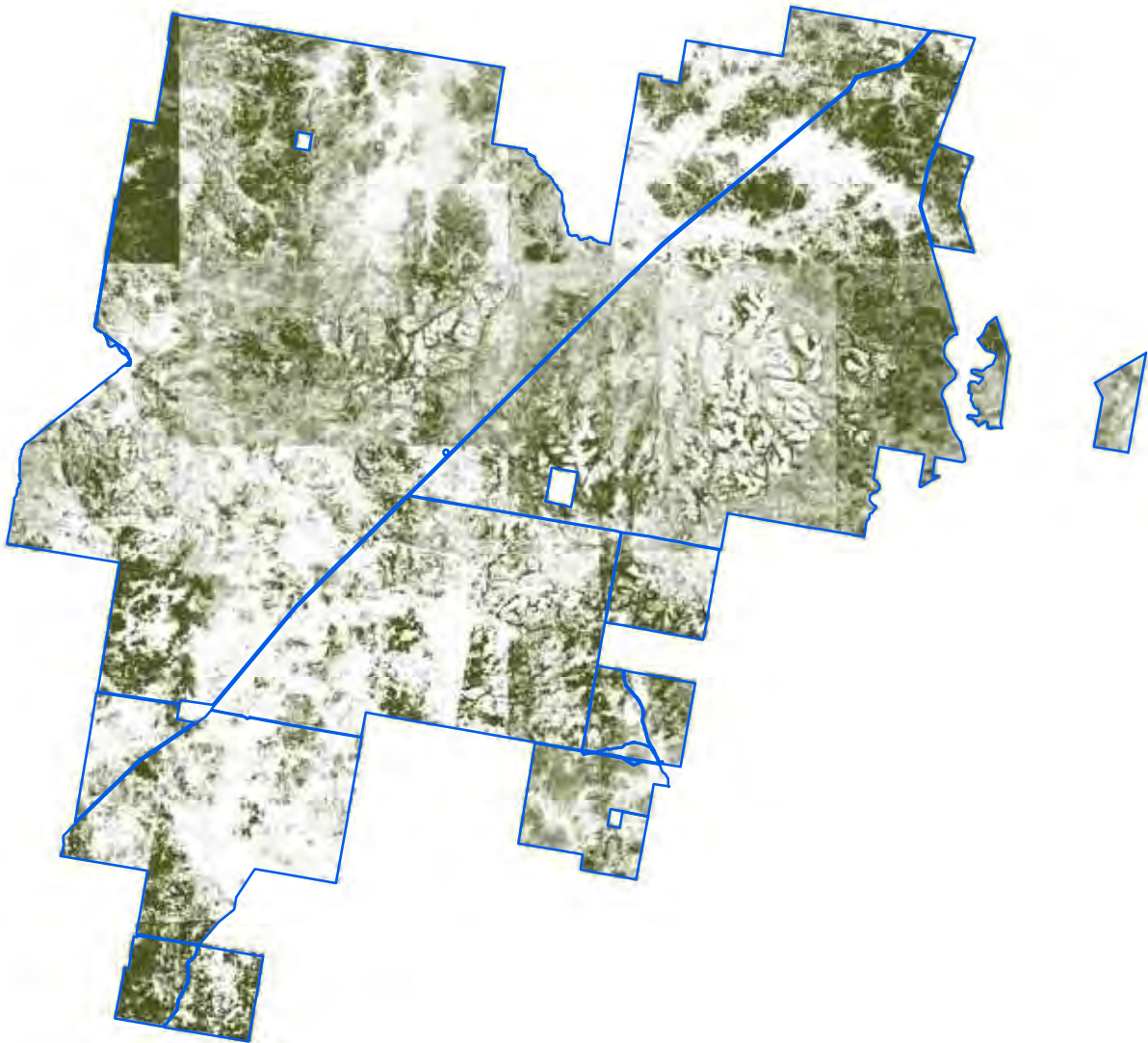
□ Goonoo State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Goonoo State Conservation Area

Continuous canopy density surface - cypress pine

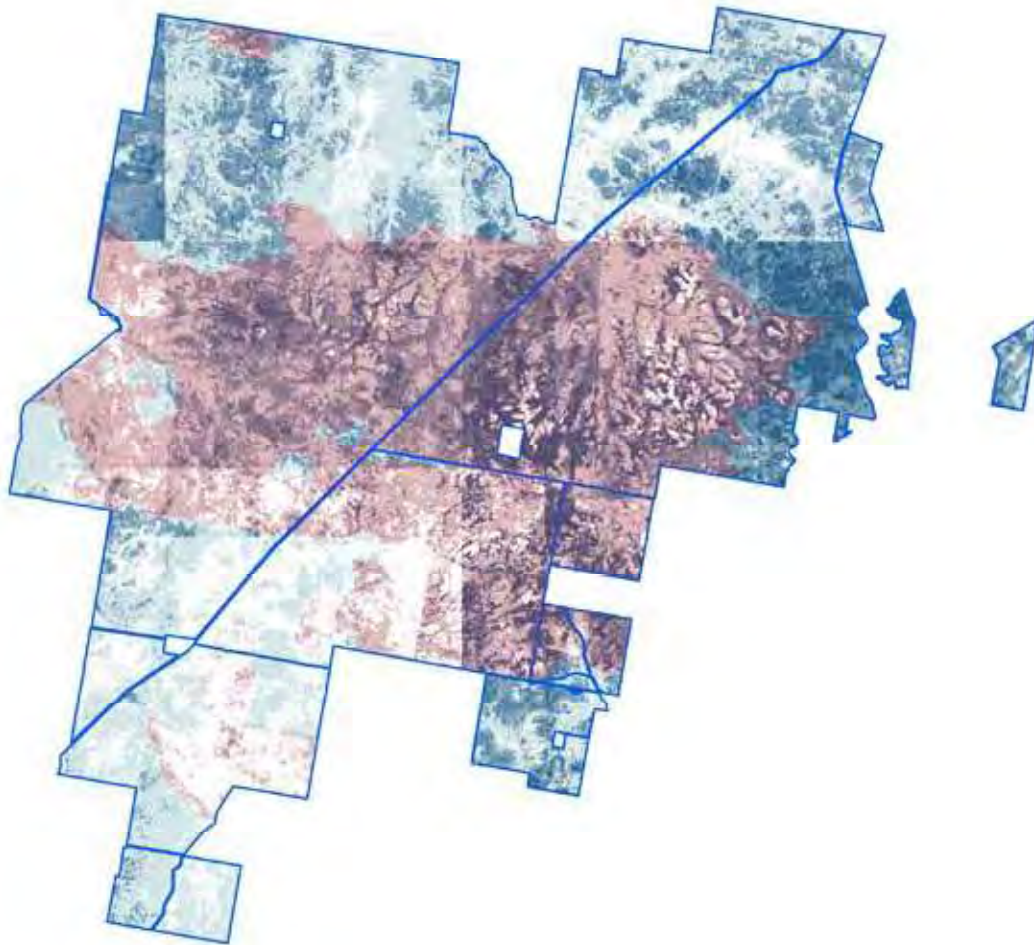


ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Goonoo State Conservation Area

Discrete canopy density classes - cypress pine

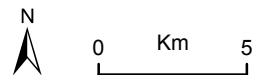


Wildfire since 2004-05

Canopy density classes

- Class 0 (little or no cypress pine detected)
- Density slice range 1 to 10
- Density slice range 10 to 20
- Density slice range 20 to 30
- Density slice range 30 to 100
- Goonoo State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Goonoo State Conservation Area

Summary statistics - spatial analysis

| Area of cypress canopy classes (excludes areas affected by wildfire since 2009) | |
|---|------------------|
| Class | Total (hectares) |
| Class 0 (little or no cypress detected) | 4,887 |
| Class 1 (1-10 percent) | 13,649 |
| Class 2 (11-20 percent) | 3,171 |
| Class 3 (21-30 percent) | 2,635 |
| Class 4 (>31 percent) | 1,142 |

| Issues and confidence levels for ADS40 spatial products | | |
|---|---------------|-------------------|
| ADS40 image quality | Issues | Confidence levels |
| Low-high | Fire regrowth | Lower |

Goonoo State Conservation Area

Summary statistics - general

| Lindsay types | Area (hectares) | Proportion of total (%) |
|--|-----------------|-------------------------|
| Heavy undergrowth with concentrations of Black Cypress Pine. Undergrowth species include Broom, various species of Acacia & Dwarf Oak, Sifton Bush Eucalypts (Lindsay Types) | 2,042 | 4 |
| Timber cover other than Pine (Lindsay Types) | 7,056 | 13 |
| Predominantly Eucalypt forest but containing some unidentified Cypress Pine (Lindsay Types) | 10,593 | 20 |
| Country carrying unidentified Cypress Pine: either pure, scattered or very scattered (Lindsay Types) | 8,110 | 15 |
| Broom, Various Species of Acacia and Dwarf Oak, Sifton Bush and Eucalypts: all very stunted (Lindsay Types) | 3,264 | 6 |
| Cleared | 14 | <1 |
| Not Typed | 23,232 | 43 |

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|--|--------------------------|-----------------------|
| VCA 467: Blue-leaved Ironbark - Black Cypress Pine shrubby sandstone open forest in the southern Brigalow Belt South Bioregion (including Goonoo) | - | - |
| VCA 141: Broombush - wattle very tall shrubland of the Pilliga to Goonoo regions, Brigalow Belt South Bioregion | - | - |
| VCA 471: Dwyers Red Gum - Black Cypress Pine - ironbark low woodland on sandstone hillcrests in the Dubbo - Gilgandra region, south-western Brigalow Belt South Bioregion | - | - |
| VCA 202: Fuzzy Box woodland on colluvium and alluvial flats in the Brigalow Belt South (including Pilliga) and Nandewar Bioregions | yes | - |
| VCA 256: Green Mallee tall mallee woodland on rises in the Pilliga - Goonoo regions, southern Brigalow Belt South Bioeregion | - | - |
| VCA 470: Mugga Ironbark - Narrow-leaved Ironbark - Buloke - Black Cypress Pine shrub grass open forest in the Goonoo forests and surrounding region, southern Brigalow Belt South Bioregion | - | - |
| VCA 468: Narrow-leaved Ironbark - Black Cypress Pine +/- Blakely's Red Gum shrubby open forest on sandstone low hills in the southern Brigalow Belt South Bioregion (including Goonoo) | - | - |
| VCA 473: Red gum - Rough-barked Apple - Narrow-leaved Ironbark - cypress pine grassy open forest on flats and drainage lines in the Goonoo and surrounding forests, southern Brigalow Belt South Bioregion | - | - |
| VCA 399: Red gum - Rough-barked Apple +/- tea tree sandy creek woodland (wetland) in the Pilliga - Goonoo sandstone forests, Brigalow Belt South Bioregion | - | - |
| VCA 440: Red Stringybark - Narrow-leaved Ironbark - Black Cypress Pine - hill red gum sandstone woodland of southern NSW Brigalow Belt South Bioregion | - | - |
| VCA 81: Western Grey Box - cypress pine shrub grass shrub tall woodland in the Brigalow Belt South Bioregion | yes | yes |
| VCA 405: White Bloodwood - Red Ironbark - cypress pine shrubby sandstone woodland of the Pilliga Scrub and surrounding regions | - | - |
| VCA 458: White Cypress Pine - Buloke - White Box shrubby open forest on hills in the Liverpool Plains - Dubbo region, Brigalow Belt South Bioregion | - | - |
| VCA 469: White Cypress Pine - Narrow-leaved Ironbark - Buloke grassy open forest of the Dubbo region, southern Brigalow Belt South Bioregion | - | - |

¹ NSW *Threatened Species Conservation Act 1995*

² Australian Government *Environment Protection and Biodiversity Conservation Act 1999*

Goonoo State Conservation Area

Summary statistics - general

| Native species recorded | | | Number |
|---|---|--------------------------|-----------------------|
| Flora | | | 523 |
| Fauna | | | 184 |
| Threatened species | | | |
| Scientific name | Common name | NSW TSC Act ¹ | EPBC Act ² |
| Flora | | | |
| <i>Pomaderris queenslandica</i> | Scant pomaderris | E1 | - |
| <i>Zieria ingramii</i> | Keith's zieria | E1 | E |
| <i>Indigofera efoliata</i> | Leafless indigo | E1 | E |
| <i>Tylophora linearis</i> | - | V | E |
| <i>Homoranthus darwinioides</i> | - | V | V |
| <i>Rulingia procumbens</i> | - | V | V |
| Fauna | | | |
| <i>Leipoa ocellata</i> | Malleefowl | E1 | V |
| <i>Anthochaera phrygia</i> | Regent honeyeater | E4A | E |
| <i>Hieraaetus morphnoides</i> | Little eagle | V | - |
| <i>Falco subniger</i> | Black falcon | V | - |
| <i>Glossopsitta pusilla</i> | Little lorikeet | V | - |
| <i>Climacteris picumnus victoriae</i> | Brown treecreeper (eastern subspecies) | V | - |
| <i>Chthonicola sagittata</i> | Speckled warbler | V | - |
| <i>Grantiella picta</i> | Painted honeyeater | V | - |
| <i>Melithreptus gularis gularis</i> | Black-chinned honeyeater (eastern subspecies) | V | - |
| <i>Pomatostomus temporalis temporalis</i> | Grey-crowned babbler (eastern subspecies) | V | - |
| <i>Daphoenositta chrysoptera</i> | Varied sittella | V | - |
| <i>Pachycephala inornata</i> | Gilbert's whistler | V | - |
| <i>Melanodryas cucullata cucullata</i> | Hooded robin (south-eastern form) | V | - |
| <i>Dasyurus maculatus</i> | Spotted-tailed quoll | V | E |
| <i>Phascolarctos cinereus</i> | Koala | V | V |
| <i>Cercartetus nanus</i> | Eastern pygmy-possum | V | - |
| <i>Saccolaimus flaviventris</i> | Yellow-bellied sheath-tail-bat | V | - |
| <i>Chalinolobus picatus</i> | Little pied bat | V | - |
| <i>Nyctophilus corbeni</i> | Corben's long-eared bat | V | V |
| <i>Calyptorhynchus lathamii</i> | Glossy black-cockatoo | V | - |
| <i>Lophoictinia isura</i> | Square-tailed kite | V | - |
| <i>Neophema pulchella</i> | Turquoise parrot | V | - |
| <i>Ninox connivens</i> | Barking owl | V | - |
| <i>Tyto novaehollandiae</i> | Masked owl | V | - |

Goonoo State Conservation Area

Summary statistics - general

| Cultural heritage - Aboriginal and non-Aboriginal | Number of sites |
|---|-----------------|
| AHIMS registered sites | 97 |
| Heritage items or places of historic significance | 10 |

| Current management plans | Status |
|-----------------------------------|--------------------------------|
| Plan of management | no |
| Fire management strategy | August 2009 |
| Regional pest management strategy | Northern plains region 2012-17 |

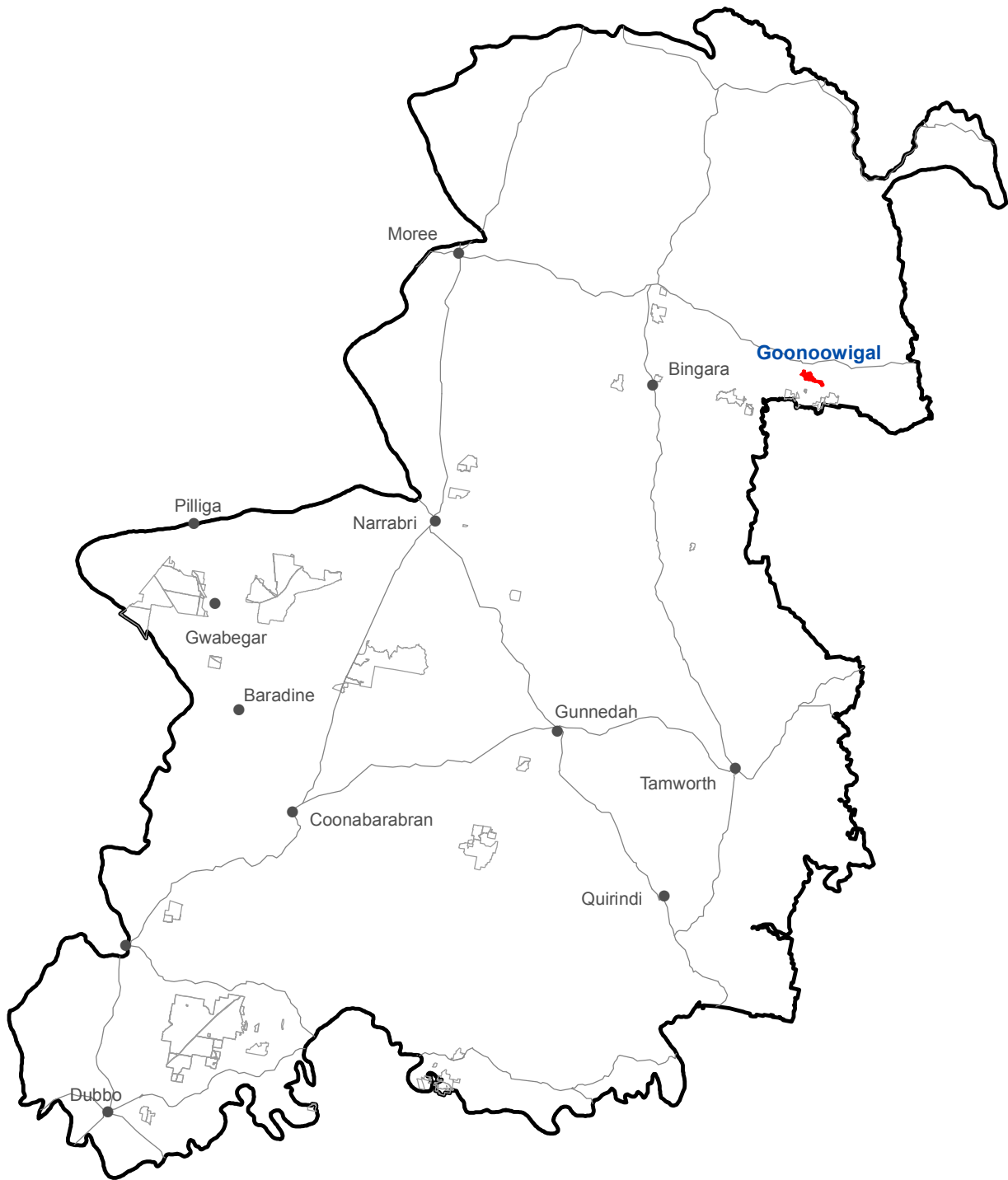
| Fire history | Prescribed burn (hectares) | Wildfire (hectares) |
|--------------|-------------------------------|------------------------|
| 2004-05 | 658 | 1,656 |
| 2005-06 | 3,329 | 247 |
| 2006-07 | - | 33 |
| 2007-08 | - | 24,851 |
| 2010-11 | 92 | - |
| 2011-12 | 611 | - |
| 2012-13 | 1,272 | - |

| Mining | Number of titles |
|-------------|--------------------------------|
| Exploration | 2 coal, 1 petroleum, 1 mineral |
| Application | 1 petroleum |

| Apiarist sites |
|----------------|
| 128 |

Goonoowigal State Conservation Area (1,055 hectares)

Location



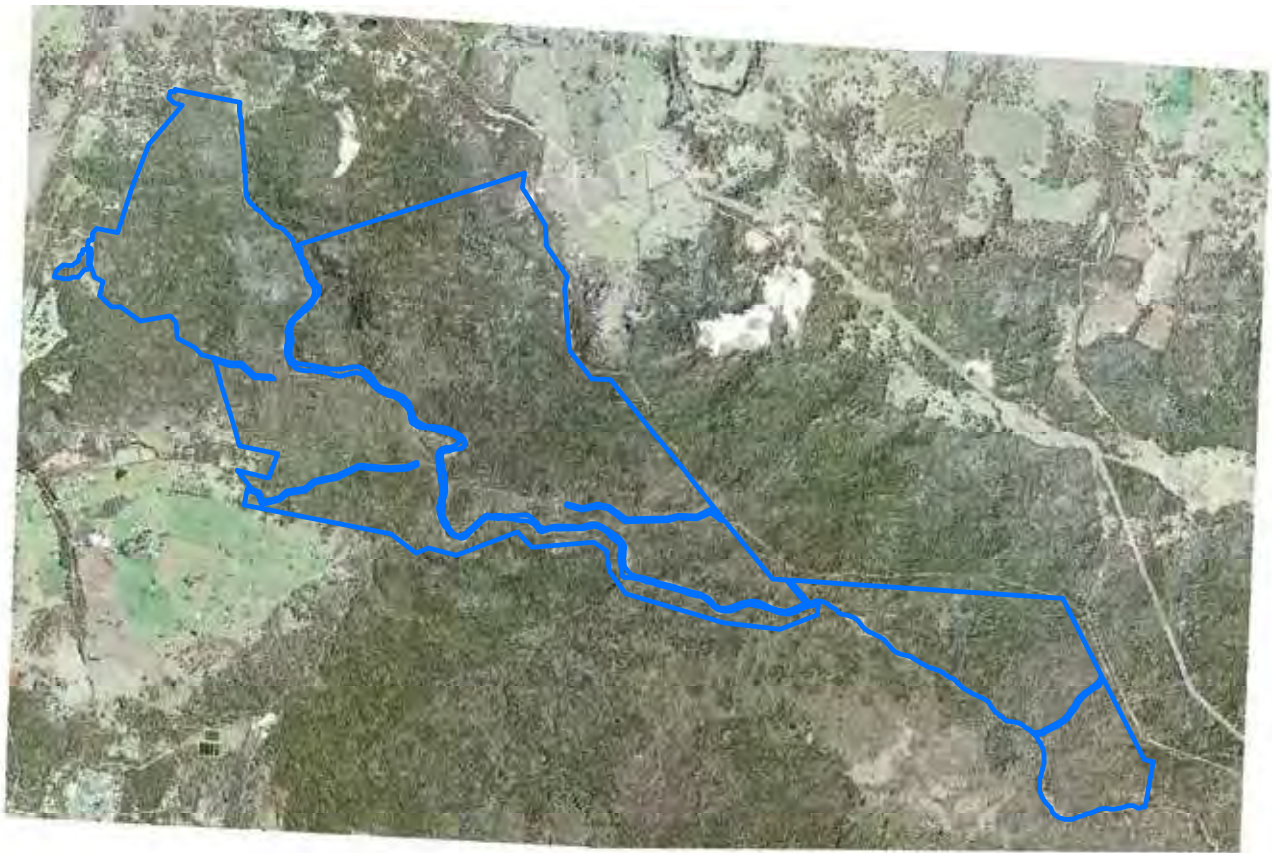
-  Goonoowigal State Conservation Area
-  Other Zone 3 State Conservation Areas

Spatial data courtesy of Office of Environment and Heritage.



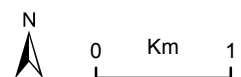
Goonoowigal State Conservation Area

Aerial



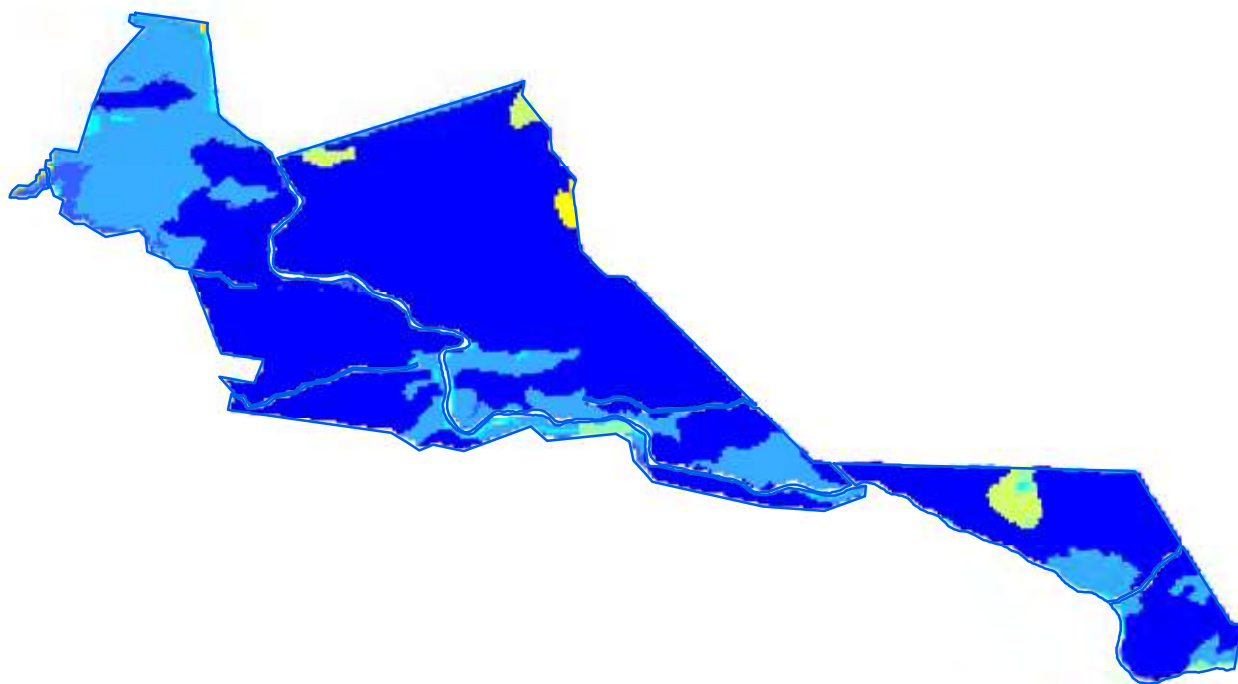
 Goonoowigal State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Goonoowigal State Conservation Area

Predicted location - white cypress pine

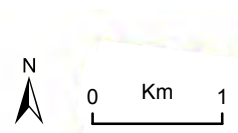


Relative probability (%) of white cypress pine occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- 80 - 90
- 90 - 100

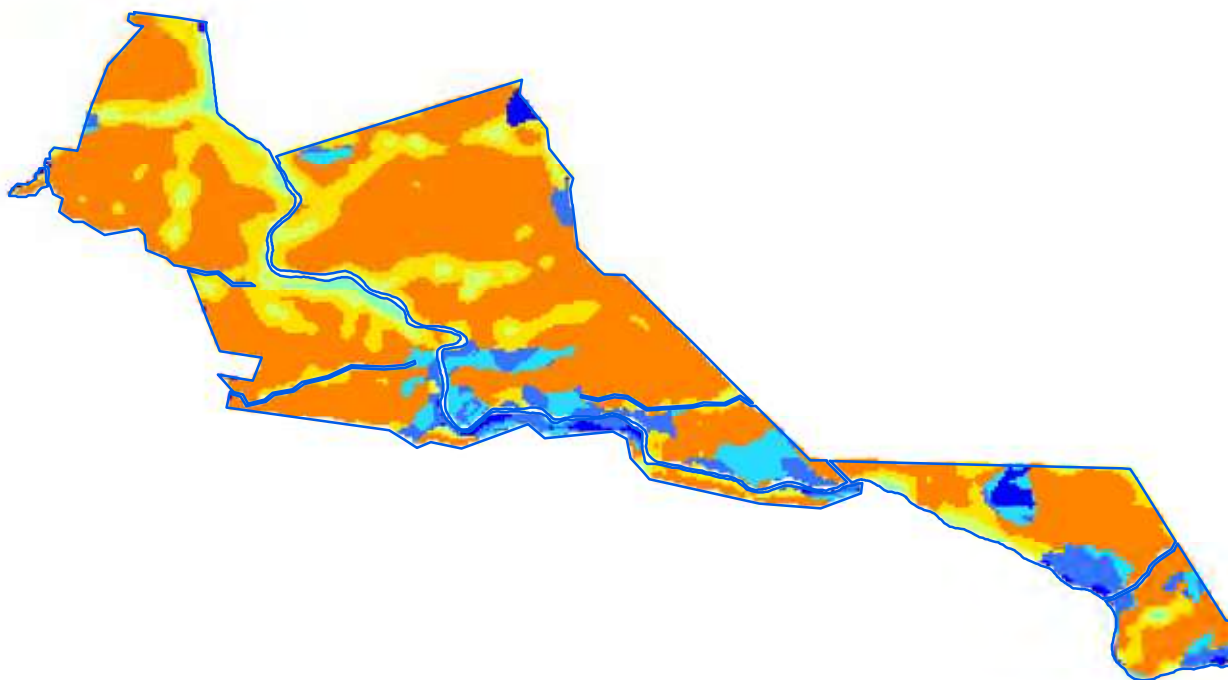
□ Goonoowigal State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Goonoowigal State Conservation Area

Predicted location - black cypress pine

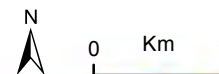


Relative probability (%) of black cypress pine occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80

□ Goonoowigal State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Goonoowigal State Conservation Area

Predicted location - bulloak

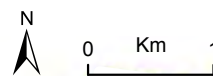


Relative probability (%) of bulloak occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70

□ Goonoowigal State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Goonoowigal State Conservation Area

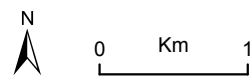
Continuous canopy density surface - cypress pine



More dense canopy
Less dense canopy

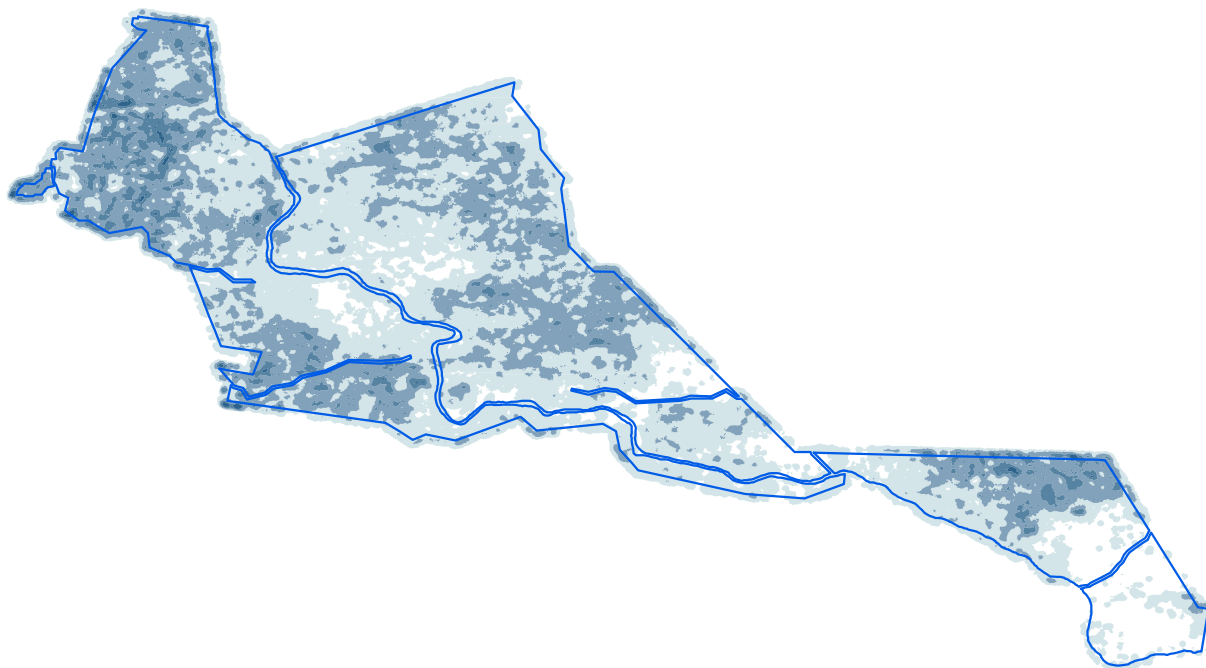
Goonoowigal State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Goonoowigal State Conservation Area

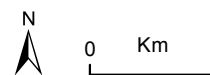
Discrete canopy density classes - cypress pine



Canopy density classes

- Class 0 (little or no cypress pine detected)
- Density slice range 1 to 10
- Density slice range 10 to 20
- Density slice range 20 to 30
- Density slice range 30 to 100
- Goonoowigal State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Goonoowigal State Conservation Area

Summary statistics - spatial analysis

| Area of cypress canopy classes (excludes areas affected by wildfire since 2009) | |
|---|------------------|
| Class | Total (hectares) |
| Class 0 (little or no cypress detected) | 130 |
| Class 1 (1-10 percent) | 635 |
| Class 2 (11-20 percent) | 383 |
| Class 3 (21-30 percent) | 61 |
| Class 4 (>31 percent) | 3 |

| Issues and confidence levels for ADS40 spatial products | | |
|---|---|-------------------|
| ADS40 image quality | Issues | Confidence levels |
| High | Image classification and mapping includes other species | Lower |

Goonoowigal State Conservation Area

Summary statistics - general

| Lindsay types | Area (hectares) | Proportion of total (%) |
|---------------|-----------------|-------------------------|
| Not typed | 1,051 | - |

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|--|--------------------------|-----------------------|
| VCA 504: Black Cypress Pine - Rough-barked Apple - stringybark shrubby open forest of the Nandewar and western New England Tablelands Bioregions | - | - |
| VCA 509: Blakely's Red Gum - White Cypress Pine - Rough-barked Apple grassy open forest of drainage lines of the northern Nandewar and New England Tablelands Bioregions | yes | yes |
| VCA 519: Heathy shrubland on granitic substrates in the Howell area in the New England Tablelands Bioregion | yes | - |
| VCA 538: Rough-barked Apple - Blakely's Red Gum open forest of the Nandewar and western New England Tablelands Bioregions | yes | yes |
| VCA 544: Rough-barked Apple -/+ cypress pine +/- Blakely's Red Gum riparian open forest / woodland of the Nandewar and New England Tableland Bioregions | yes | yes |
| VCA 578: Tumbledown Red Gum - Black Cypress Pine - Caley's Ironbark shrubby open forest of the Nandewar and western New England Tablelands Bioregions | - | - |

¹ NSW *Threatened Species Conservation Act 1995*

² Australian Government *Environment Protection and Biodiversity Conservation Act 1999*

| Native species recorded | | Number | |
|---------------------------------------|--|--------------------------|-----------------------|
| Flora | | 343 | |
| Fauna | | 90 | |
| Threatened species | | | |
| Scientific name | Common name | NSW TSC Act ¹ | EPBC Act ² |
| Flora | | | |
| <i>Eucalyptus mckieana</i> | McKie's stringybark | V | V |
| <i>Homoranthus prolixus</i> | Granite homoranthus | V | V |
| <i>Polygala linariifolia</i> | Native milkwort | E1 | - |
| <i>Macrozamia humilis</i> | Inverell cycad | E1 | - |
| Fauna | | | |
| <i>Glossopsitta pusilla</i> | Little lorikeet | V | - |
| <i>Neophema pulchella</i> | Turquoise parrot | V | - |
| <i>Climacteris picumnus victoriae</i> | Brown treecreeper (eastern subspecies) | V | - |
| <i>Stagonopleura guttata</i> | Diamond firetail | V | - |
| <i>Petaurus norfolcensis</i> | Squirrel glider | V | - |

| Cultural heritage - Aboriginal and non-Aboriginal | Number of sites |
|---|--------------------------|
| AHIMS registered sites | 1 |
| Heritage items or places of historic significance | no information available |

Goonoowigal State Conservation Area

Summary statistics - general

| Current management plans | Status |
|-----------------------------------|------------------------------------|
| Plan of management | no |
| Fire management strategy | June 2008 |
| Regional pest management strategy | Northern tablelands region 2012-17 |

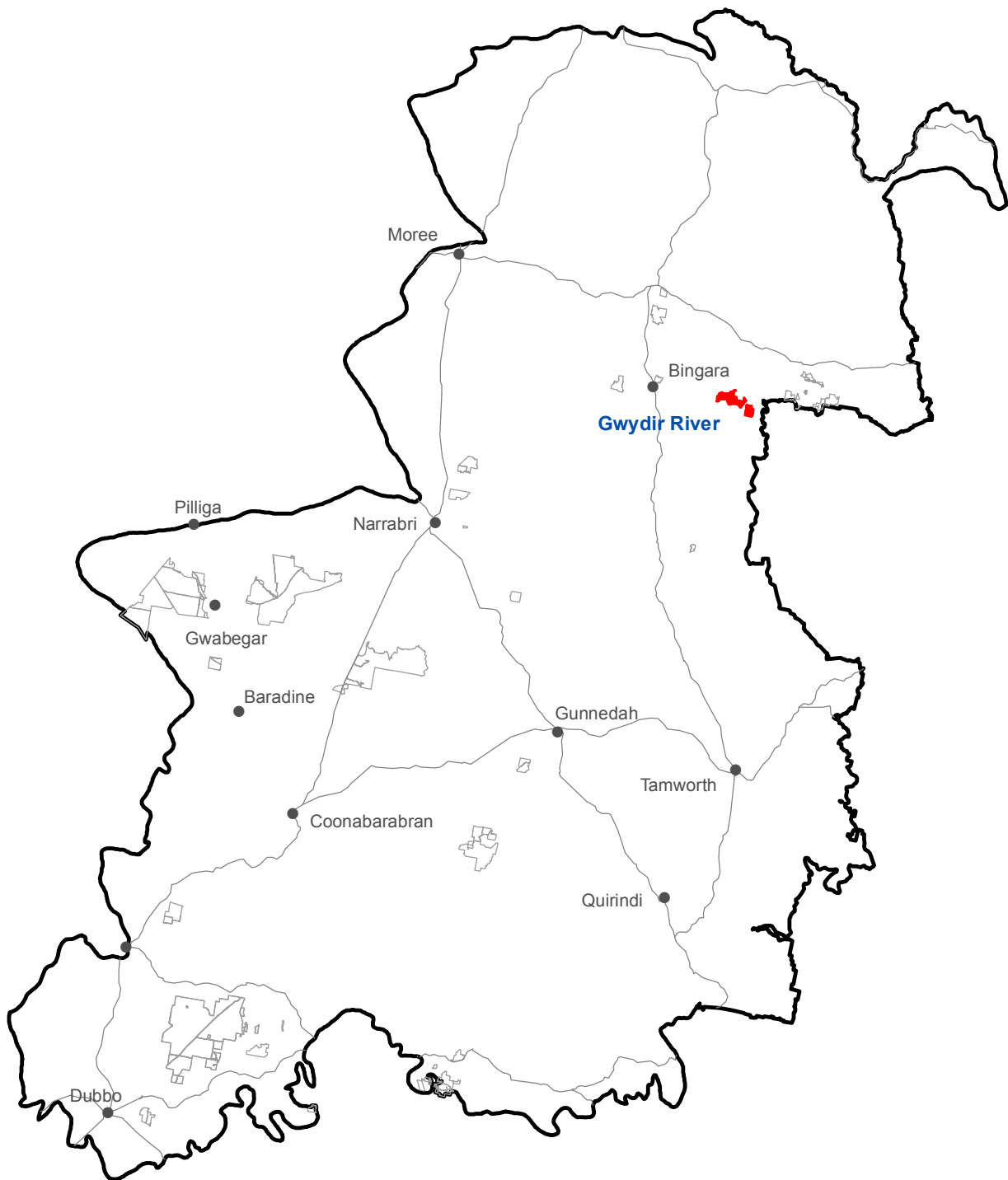
| Fire history | Prescribed burn (hectares) | Wildfire (hectares) |
|--------------|----------------------------|---------------------|
| 2005-06 | - | 50 |



| Mining | Number of titles |
|-------------|------------------------|
| Exploration | 1 petroleum, 1 mineral |
| Application | none |

| Apiarist sites |
|----------------|
| None |

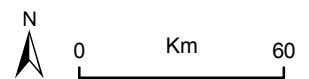
Gwydir River State Conservation Area (2,607 hectares)

Location



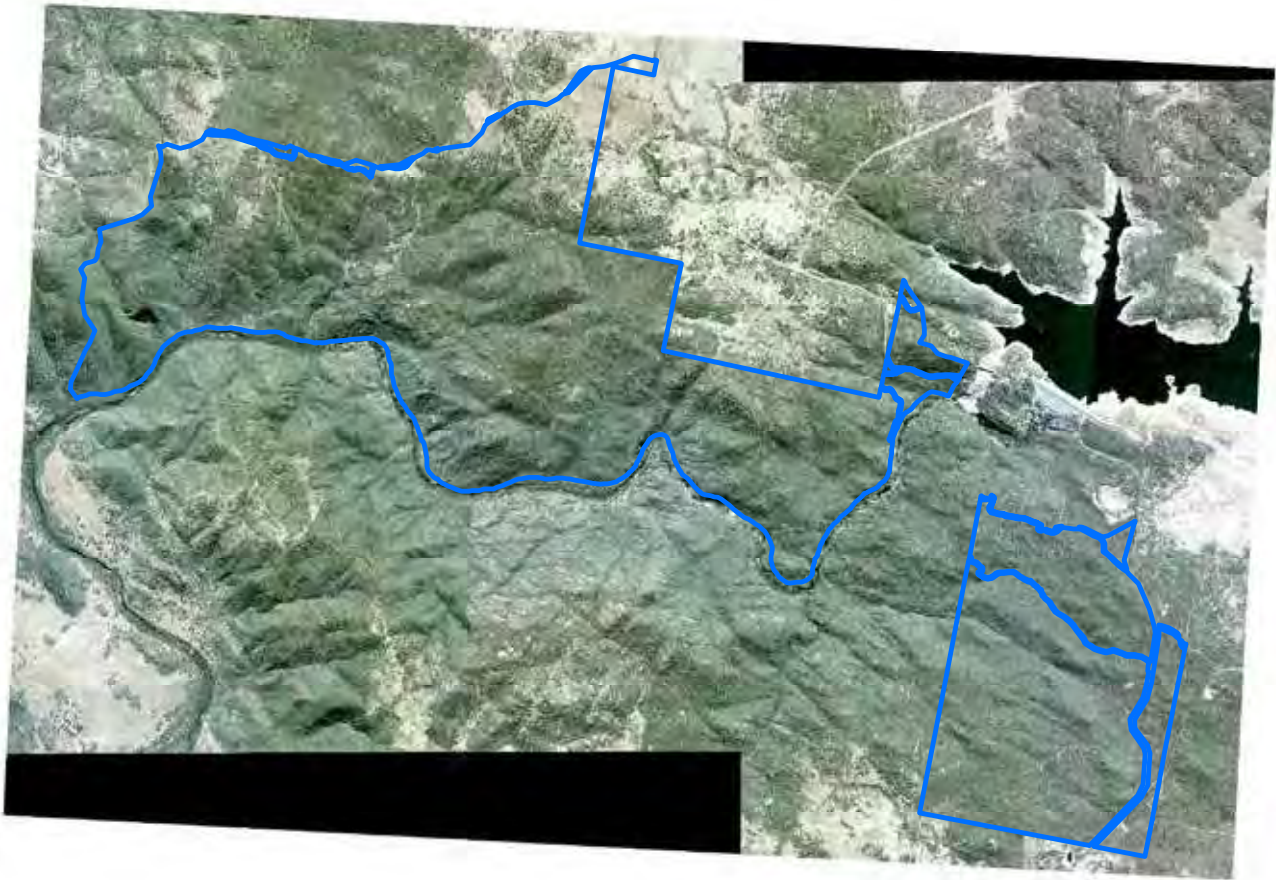
-  Gwydir River State Conservation Area
-  Other Zone 3 State Conservation Areas


Spatial data courtesy of Office of Environment and Heritage.



Gwydir River State Conservation Area

Aerial



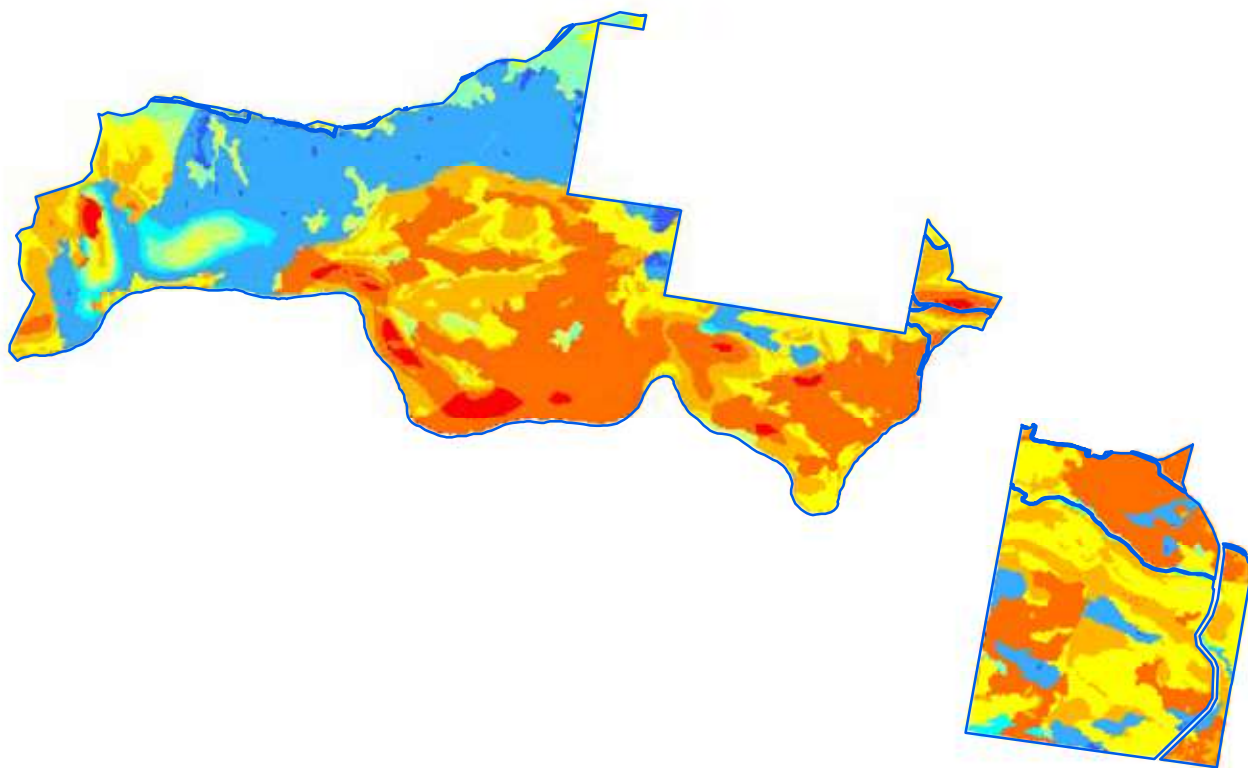
 Gwydir River State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).

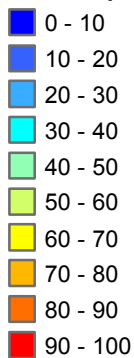


Gwydir River State Conservation Area

Predicted location - white cypress pine

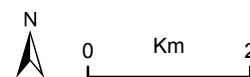


Relative probability (%) of white cypress pine occurrence



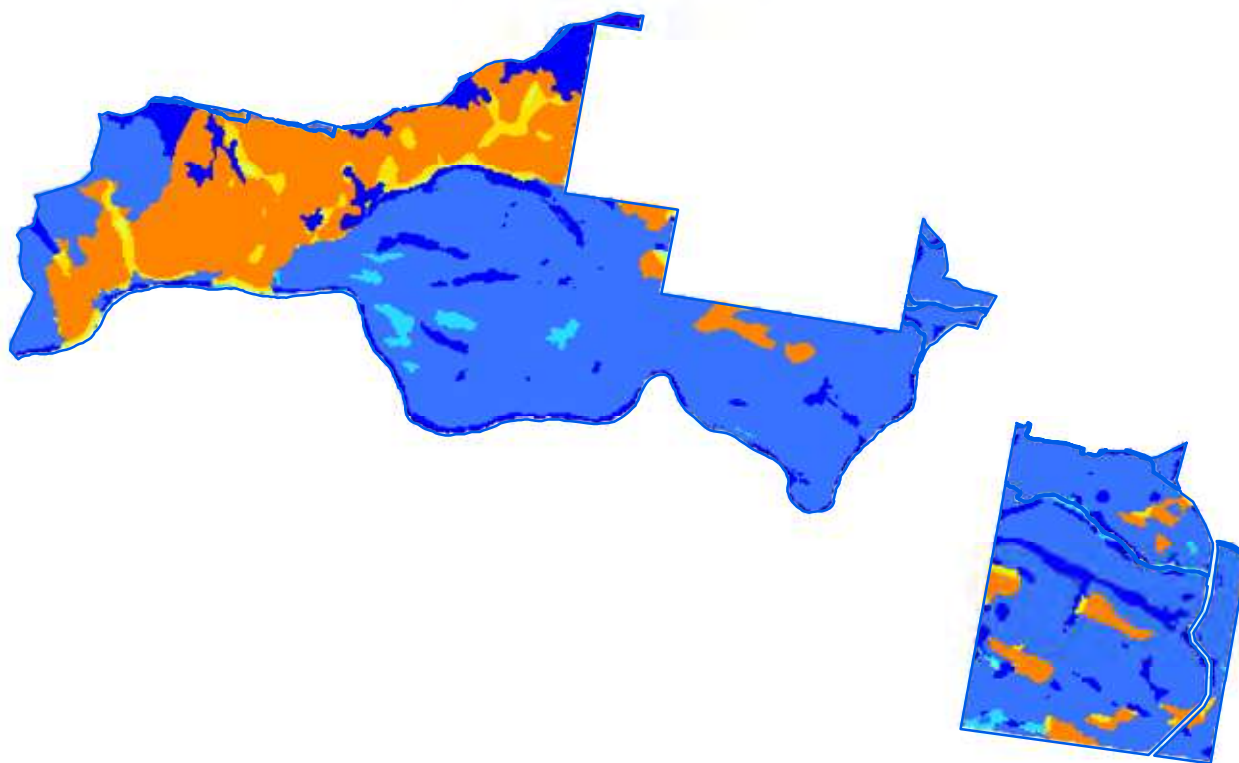
□ Gwydir River State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Gwydir River State Conservation Area

Predicted location - black cypress pine

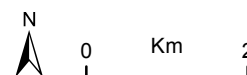


Relative probability (%) of black cypress pine occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80

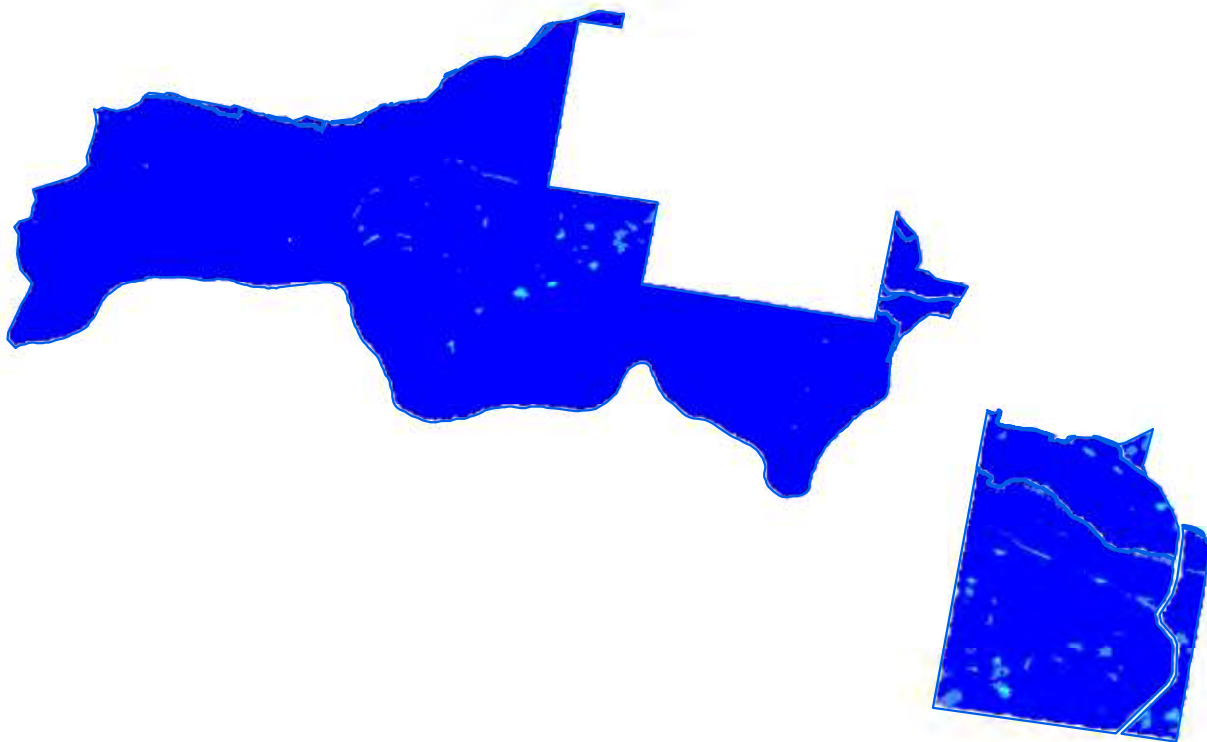
□ Gwydir River State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.

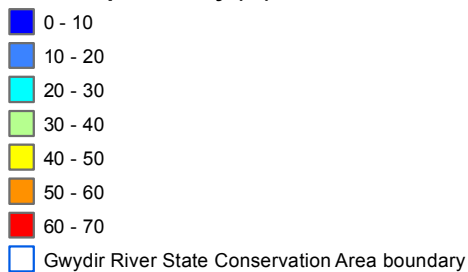


Gwydir River State Conservation Area

Predicted location - bulloak



Relative probability (%) of bulloak occurrence




Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Gwydir River State Conservation Area

Continuous canopy density surface - cypress pine



 More dense canopy
Less dense canopy

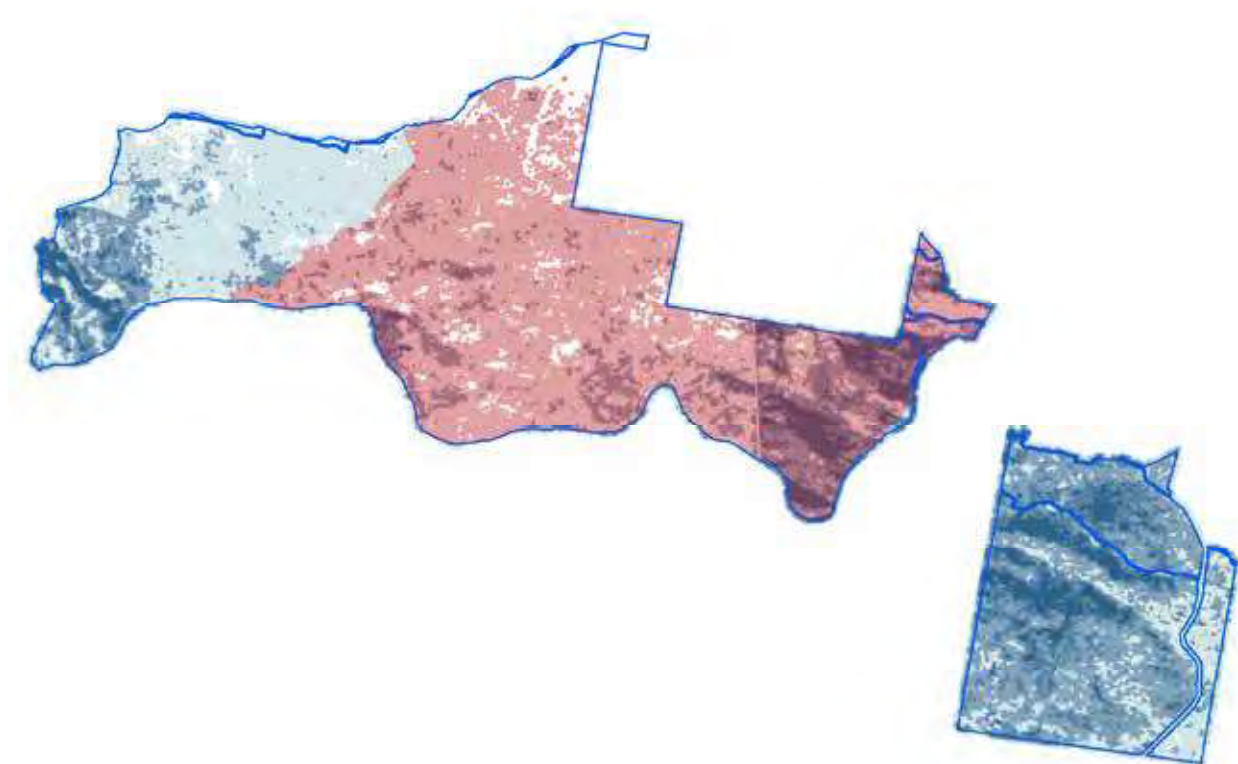
 Gwydir River State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Gwydir River State Conservation Area

Discrete canopy density classes - cypress pine

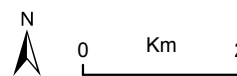


Wildfire since 2004-05

Canopy density classes

- Class 0 (little or no cypress pine detected)
- Density slice range 1 to 10
- Density slice range 10 to 20
- Density slice range 20 to 30
- Density slice range 30 to 100
- Gwydir River State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Gwydir River State Conservation Area

Summary statistics - spatial analysis

| Area of cypress canopy classes (excludes areas affected by wildfire since 2009) | |
|---|------------------|
| Class | Total (hectares) |
| Class 0 (little or no cypress detected) | 82 |
| Class 1 (1-10 percent) | 827 |
| Class 2 (11-20 percent) | 620 |
| Class 3 (21-30 percent) | 272 |
| Class 4 (>31 percent) | 145 |

| Issues and confidence levels for ADS40 spatial products | | |
|---|---|-------------------|
| ADS40 image quality | Issues | Confidence levels |
| Medium | Image classification and mapping includes other species | Lower |

Gwydir River State Conservation Area

Summary statistics - general

| Lindsay types | Area (hectares) | Proportion of total (%) |
|--|-----------------|-------------------------|
| Roughbarked Apple (<i>Angophora floribunda</i>) | 13 | <1 |
| Roughbarked Apple (<i>Angophora floribunda</i>) in association with Blakelys Red Gum (<i>E.blakelyi</i>) | 8 | <1 |
| Blakely's Red Gum (<i>E.blakelyi</i>) | 3 | <1 |
| Black Cypress Pine | 20 | 1 |
| Black Cypress Pine (<i>Callitris endlicheri</i>) in association with Youmans' Stringybark (<i>E.youmannii</i>) | 4 | <1 |
| Black Cypress Pine (<i>Callitris endlicheri</i>) - Caley's Ironbark (<i>E. caleyi</i>) | 7 | <1 |
| Black Cypress Pine (<i>Callitris endlicheri</i>) - Caley's Ironbark (<i>E. caleyi</i>) in association with White Cypress Pine (<i>Callitris glaucophylla</i>) | 11 | <1 |
| Black Cypress Pine (<i>Callitris endlicheri</i>) - Caley's Ironbark (<i>E. caleyi</i>), on rocky terrain | 33 | 1 |
| Black Cypress Pine (<i>Callitris endlicheri</i>) - Silverleaved Ironbark (<i>E. melanophloia</i>), on rocky terrain | 12 | <1 |
| Black Cypress Pine - White Cypress Pine | 13 | <1 |
| White Cypress Pine | 734 | 21 |
| White Cypress Pine (<i>Callitris glaucophylla</i>) in association with Roughbarked Apple (<i>Angophora floribunda</i>) | 6 | <1 |
| White Cypress Pine (<i>Callitris glaucophylla</i>) alternating with areas of rock | 4 | <1 |
| White Cypress Pine (<i>Callitris glaucophylla</i>) on rocky terrain | 21 | 1 |
| White Cypress Pine (<i>Callitris glaucophylla</i>) - Caley's Ironbark (<i>E. caleyi</i>) | 500 | 15 |
| White Cypress Pine (<i>Callitris glaucophylla</i>) - Caley's Ironbark (<i>E. caleyi</i>) in association with (<i>Angophora floribunda</i>) | 4 | <1 |
| White Cypress Pine (<i>Callitris glaucophylla</i>) - Caley's Ironbark (<i>E. caleyi</i>) in association with Black Cypress Pine (<i>Callitris endlicheri</i>) | 81 | 2 |
| White Cypress Pine (<i>Callitris glaucophylla</i>) - Caley's Ironbark (<i>E. caleyi</i>) alternating with rock | 94 | 3 |
| White Cypress Pine (<i>Callitris glaucophylla</i>) - Caley's Ironbark (<i>E. caleyi</i>) on rocky terrain | 136 | 4 |
| White Cypress Pine (<i>Callitris glaucophylla</i>) - Silverleaved Ironbark (<i>E. melanophloia</i>) | 307 | 9 |
| White Cypress Pine (<i>Callitris glaucophylla</i>) - Silverleaved Ironbark (<i>E. melanophloia</i>), alternating with rock | 1 | <1 |
| White Cypress Pine (<i>Callitris glaucophylla</i>) - Silverleaved Ironbark (<i>E. melanophloia</i>), on rocky terrain | 36 | 1 |
| White Cypress Pine (<i>Callitris glaucophylla</i>) - White Box (<i>E. albens</i>) | 31 | 1 |
| White Cypress Pine (<i>Callitris glaucophylla</i>) - Yellow Box (<i>E.meliodora</i>) | 9 | <1 |
| White Cypress Pine - Black Cypress Pine | 178 | 5 |
| White Cypress Pine (<i>Callitris glaucophylla</i>) - Black Cypress Pine (<i>Callitris endlicheri</i>) in association with Silverleaved Ironbark (<i>E. melanophloia</i>) | 17 | 1 |
| White Cypress Pine (<i>Callitris glaucophylla</i>) - Bancrofts Red Gum (<i>E. bancroftii</i>) | 4 | <1 |
| White Cypress Pine (<i>Callitris glaucophylla</i>) - Tumbledown Red Gum (<i>E. dealbata</i>) | 4 | <1 |

Gwydir River State Conservation Area

Summary statistics - general

| Lindsay types | Area (hectares) | Proportion of total (%) |
|---|-----------------|-------------------------|
| River Red Gum (<i>E. camaldulensis</i>) in association with River Oak (<i>Casuarina cunninghamiana</i>) | 2 | <1 |
| Caley's Ironbark (<i>E. caleyi</i>) - Tumbledown Red Gum (<i>E. dealbata</i>) | 9 | <1 |
| Caley's Ironbark (<i>E. caleyi</i>) - Tumbledown Red Gum (<i>E. dealbata</i>) on rocky terrain | 28 | 1 |
| River Oak (<i>Casuarina cunninghamiana</i>) in association with River Red Gum (<i>E. camaldulensis</i>) | 1 | <1 |
| Wattle (<i>Acacia sp.</i>) on rocky terrain | 2 | <1 |
| Settlements, Roads, Gravel Pits, etc. | 3 | <1 |
| Heath / Rock | 1 | <1 |
| Heath, on rocky terrain | 1 | <1 |
| Rock | 40 | 1 |
| Untyped | 1,040 | 30 |

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|---|--------------------------|-----------------------|
| VCA 509: Blakely's Red Gum - White Cypress Pine - Rough-barked Apple grassy open forest of drainage lines of the northern Nandewar and New England Tablelands Bioregions | yes | yes |
| VCA 519: Heathy shrubland on granitic substrates in the Howell area in the New England Tablelands Bioregion | yes | - |
| VCA 582: Sedgeland fens wetland of impeded drainage of the Nandewar and New England Tablelands Bioregions | nominated | - |
| VCA 594: Silver-leaved Ironbark - White Cypress Pine shrubby open forest of Brigalow Belt South and Nandewar Bioregions | - | - |
| VCA 542: Stringybark - Rough-barked Apple - cypress pine shrubby open forest of the eastern Nandewar and western New England Tablelands Bioregions | - | - |
| VCA 562: Tumbledown Red Gum - White Cypress Pine - Caley's Ironbark shrubby open forest of the Nandewar and western New England Tablelands Bioregions | - | - |
| VCA 564: White Cypress Pine - Silver-leaved Ironbark - Caley's Ironbark open forest of the central Nandewar and western New England Tablelands Bioregions | - | - |
| VCA 547: Wild Quince - Mock Olive - Rusty Fig - Iamboto - Sweet Pittosporum dry rainforest of rocky and scree areas of the Nandewar and New England Tablelands Bioregions | yes | yes |

¹ NSW *Threatened Species Conservation Act 1995*

² Australian Government *Environment Protection and Biodiversity Conservation Act 1999*

| Native species recorded | Number |
|-------------------------|--------|
| Flora | 448 |
| Fauna | 21 |

Gwydir River State Conservation Area

Summary statistics - general

| Threatened species | | | |
|---------------------------------------|--|--------------------------|-----------------------|
| Scientific name | Common name | NSW TSC Act ¹ | EPBC Act ² |
| Flora | | | |
| <i>Polygala linariifolia</i> | Native milkwort | E1 | - |
| Fauna | | | |
| <i>Neophema pulchella</i> | Turquoise parrot | V | - |
| <i>Tyto novaehollandiae</i> | Masked owl | V | - |
| <i>Climacteris picumnus victoriae</i> | Brown treecreeper (eastern subspecies) | V | - |
| <i>Chthonicola sagittata</i> | Speckled warbler | V | - |
| <i>Stagonopleura guttata</i> | Diamond firetail | V | - |

| Cultural heritage - Aboriginal and non-Aboriginal | Number of sites |
|---|--------------------------|
| AHIMS registered sites | 5 |
| Heritage items or places of historic significance | no information available |

| Current management plans | Status |
|-----------------------------------|------------------------------------|
| Plan of management | no |
| Fire management strategy | August 2006 |
| Regional pest management strategy | Northern tablelands region 2012-17 |

| Fire history | Prescribed burn (hectares) | Wildfire (hectares) |
|--------------|----------------------------|---------------------|
| 2009-10 | - | 1,780 |
| 2012-13 | 97 | 2 |
| 2013-14 | 101 | - |

| Mining | Number of titles |
|-------------|------------------|
| Exploration | 1 mineral |
| Application | none |

| Apiarist sites |
|----------------|
| 14 |

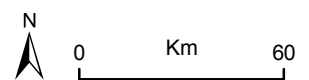
Killarney State Conservation Area (1,858 hectares)

Location



- Killarney State Conservation Area
- Other Zone 3 State Conservation Areas


Spatial data courtesy of Office of Environment and Heritage.



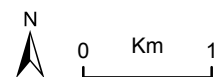
Killarney State Conservation Area

Aerial



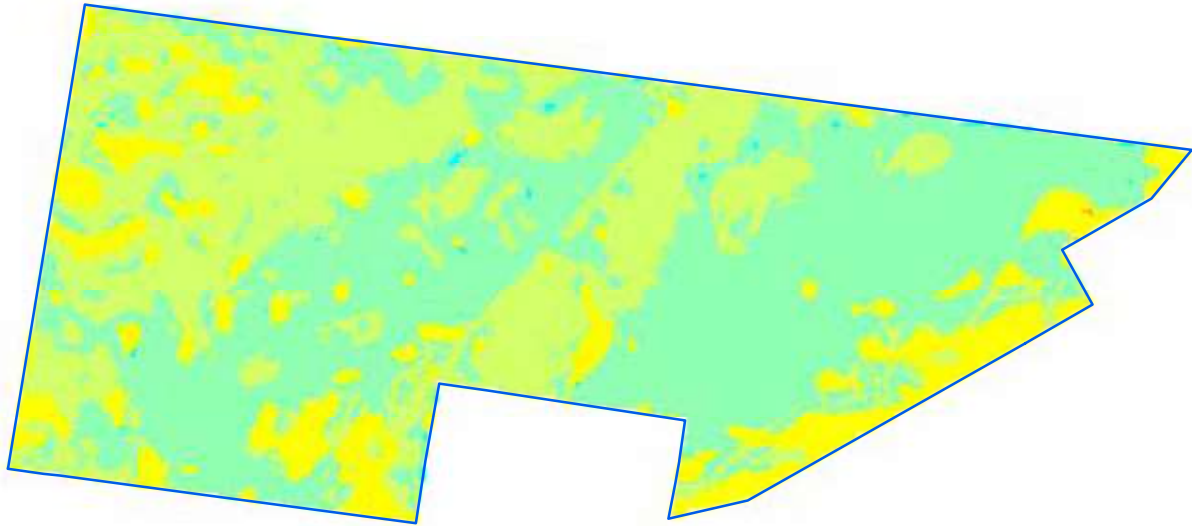
 Killarney State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Killarney State Conservation Area

Predicted location - white cypress pine

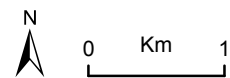


Relative probability (%) of white cypress pine occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- 80 - 90
- 90 - 100

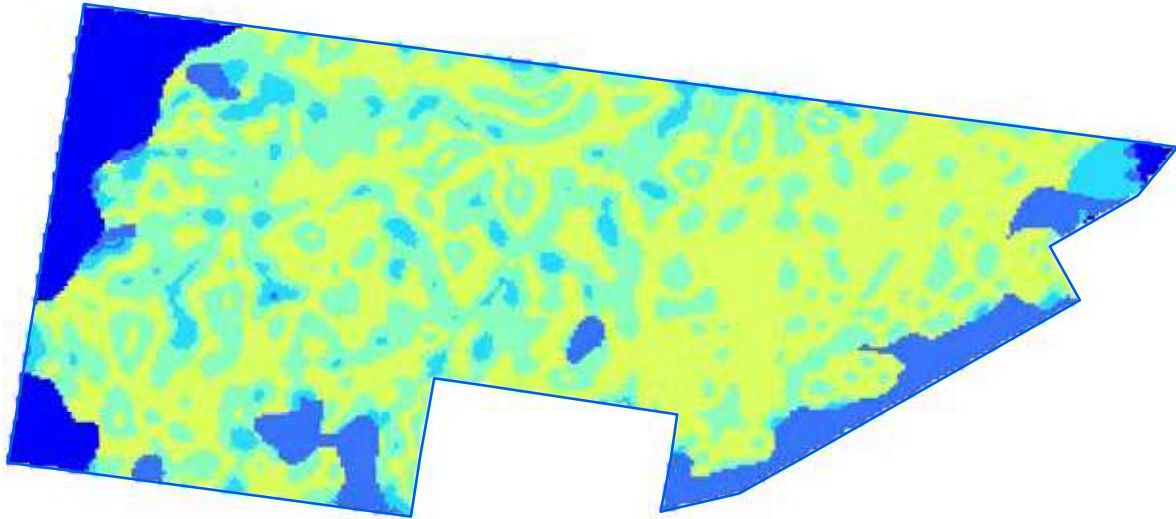
Killarney State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Killarney State Conservation Area

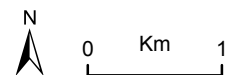
Predicted location - black cypress pine



Relative probability (%) of black cypress pine occurrence

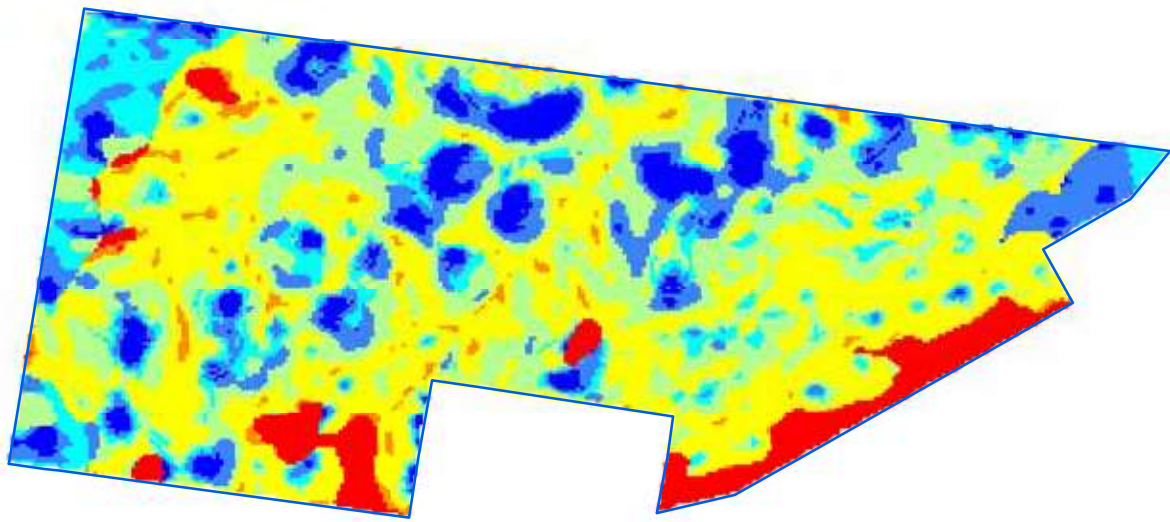
- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- Killarney State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Killarney State Conservation Area

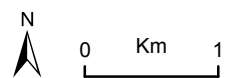
Predicted location - bulloak



Relative probability (%) of bulloak occurrence

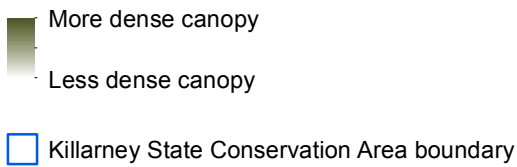
- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- Killarney State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.

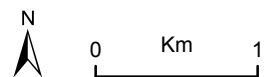


Killarney State Conservation Area

Continuous canopy density surface - cypress pine

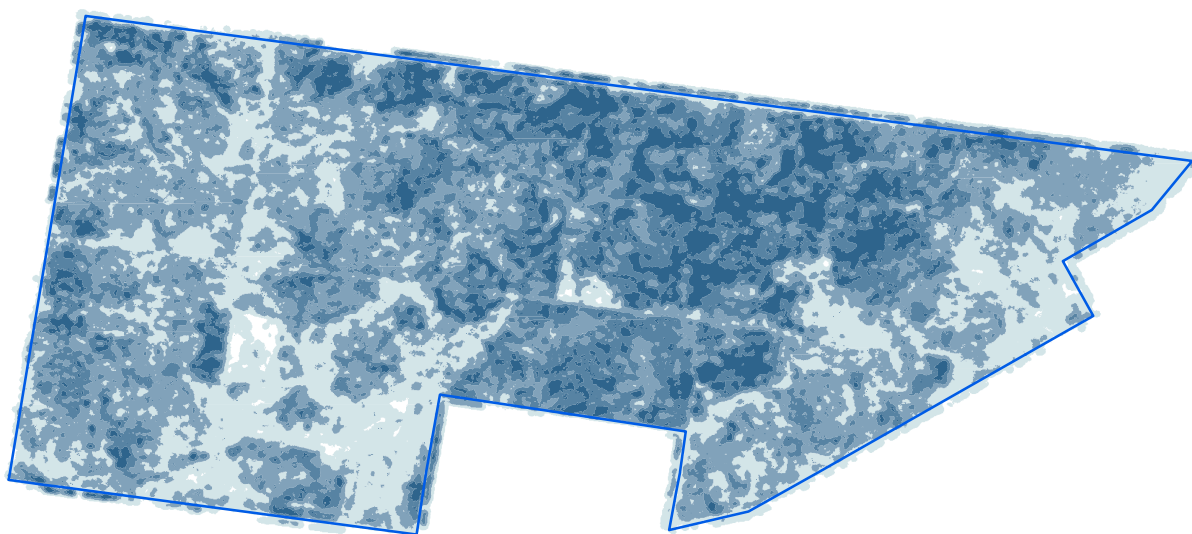


ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Killarney State Conservation Area

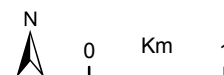
Discrete canopy density classes - cypress pine



Canopy density classes

- Class 0 (little or no cypress pine detected)
- Density slice range 1 to 10
- Density slice range 10 to 20
- Density slice range 20 to 30
- Density slice range 30 to 100
- Killarney State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Killarney State Conservation Area

Summary statistics - spatial analysis

| Area of cypress canopy classes (excludes areas affected by wildfire since 2009) | |
|---|------------------|
| Class | Total (hectares) |
| Class 0 (little or no cypress detected) | 11 |
| Class 1 (1-10 percent) | 503 |
| Class 2 (11-20 percent) | 742 |
| Class 3 (21-30 percent) | 487 |
| Class 4 (>31 percent) | 224 |

| Issues and confidence levels for ADS40 spatial products | | |
|---|--------|-------------------|
| ADS40 image quality | Issues | Confidence levels |
| High | - | Higher |

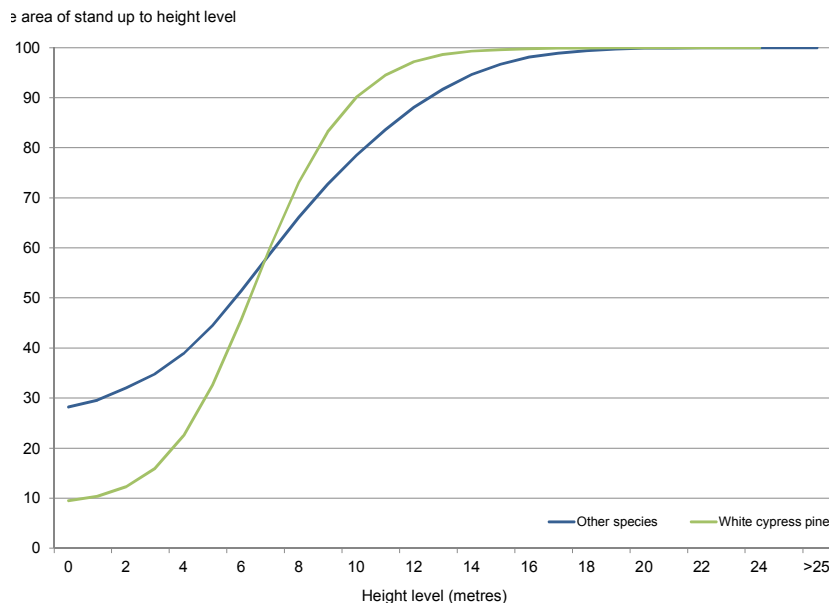
Killarney State Conservation Area

Summary statistics - spatial analysis

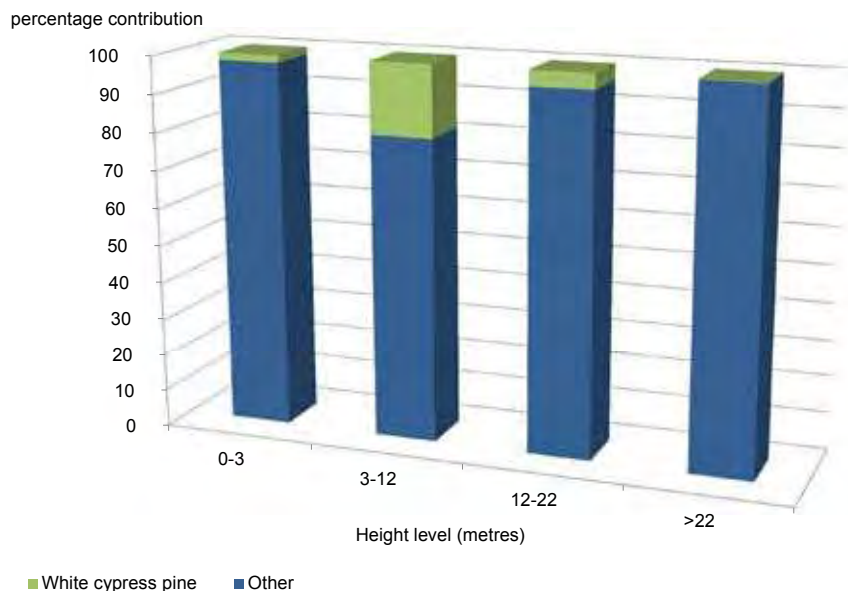
Light detection and ranging (LiDAR) data and analysis

Cumulative height and percentage cover charts show the average cumulative height for white cypress pine and other species, averaged over the State Conservation Area. The figures also show the relative proportion of white cypress pine cover and other species' cover within four height classes, averaged over the State Conservation Area.

Cumulative height chart



Percentage cover chart



Key insights include:

- Higher proportion of mid-size white cypress pine and fewer small and large white cypress trees (note relatively steep slope of cypress curve between 6 and 12 metres, which contains about 70 percent of total cypress cover).
- Relatively little area of white cypress pine cover in the 0 - 3 metre height range.
- Most white cypress pine cover occurs in the 3 - 12 metre height range.
- Average white cypress pine cover contribution is 5.6 percent across all height classes.

Killarney State Conservation Area

Summary statistics - general

| Lindsay types | Area (hectares) | Proportion of total (%) |
|---|-----------------|-------------------------|
| Red Gum (<i>E. blakelyi</i>) (Blakely's Red Gum) (Lindsay Types) | 26 | 1 |
| Black Pine - Narrowleaf Ironbark - Red Gum (Lindsay Types) | 406 | 22 |
| Narrowleaf Ironbark - Forest Oak - White Cypress Pine (Lindsay Types) | 169 | 9 |
| White Cypress Pine - Narrowleaf Ironbark - Red Gum (Lindsay Types) | 457 | 25 |
| White Cypress Pine - Narrowleaf Ironbark - Forest Oak (Lindsay Types) | 655 | 35 |
| Pilliga Box - White Cypress Pine (Lindsay Types) | 64 | 3 |
| White Cypress Pine - White Box (Lindsay Types) | 11 | 1 |
| White Cypress Pine - Pilliga Box (Lindsay Types) | 69 | 4 |

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|--|--------------------------|-----------------------|
| VCA 411: Buloke - White Cypress Pine woodland on outwash plains in the Pilliga Scrub and Narrabri regions, Brigalow Belt South bioregion | - | - |
| VCA 428: Carbeen - White Cypress Pine - Curracabah - White Box tall woodland on sand in the Narrabri - Warialda region of the Brigalow Belt South Bioregion | yes | - |
| VCA 408: Dirty Gum (Baradine Gum) - Black Cypress Pine - White Bloodwood shrubby woodland on of the Pilliga forests and surrounding region | - | - |
| VCA 432: Dwyers Red Gum - Dirty (Baradine) Gum - cypress pine shrubby woodland of the Narrabri region of the Brigalow Belt South Bioregion | - | - |
| VCA 398: Narrow-leaved Ironbark - White Cypress Pine - Buloke tall open forest on lower slopes and flats in the Pilliga Scrub and surrounding forests in the central north Brigalow Belt South Bioregion | - | - |
| VCA 373: Narrow-leaved Ironbark - White Cypress Pine -/+ Buloke tall open forest or woodland of the Warialda to Yetman region, Brigalow Belt South Bioregion | - | - |
| VCA 88: Pilliga Box - White Cypress Pine - Buloke shrubby woodland in the Brigalow Belt South Bioregion | - | - |
| VCA 56: Poplar Box - Belah woodland on clay-loam soils on alluvial plains of north-central NSW | - | - |
| VCA 422: Smooth-barked Apple - cypress pine - Narrow-leaved Ironbark - White Bloodwood tall heathy woodland of the Pilliga forests to Warialda region, Brigalow Belt South Bioregion | - | - |

¹ NSW *Threatened Species Conservation Act 1995*

² Australian Government *Environment Protection and Biodiversity Conservation Act 1999*

| Native species recorded | Number |
|-------------------------|--------|
| Flora | 218 |
| Fauna | 63 |

Killarney State Conservation Area

Summary statistics - general

| Threatened species | | | |
|--|--|--------------------------|-----------------------|
| Scientific name | Common name | NSW TSC Act ¹ | EPBC Act ² |
| Flora | | | |
| - | - | - | - |
| Fauna | | | |
| <i>Neophema pulchella</i> | Turquoise Parrot | V | - |
| <i>Climacteris picumnus victoriae</i> | Brown Treecreeper (eastern subspecies) | V | - |
| <i>Grantiella picta</i> | Painted Honeyeater | V | - |
| <i>Melanodryas cucullata cucullata</i> | Hooded Robin (south-eastern form) | V | - |
| <i>Phascolarctos cinereus</i> | Koala | V | V |

| Cultural heritage - Aboriginal and non-Aboriginal | Number of sites |
|---|-----------------|
| AHIMS registered sites | 1 |
| Heritage items or places of historic significance | 0 |

| Current management plans | Status |
|-----------------------------------|--------------------------------|
| Plan of management | no |
| Fire management strategy | April 2009 |
| Regional pest management strategy | Northern plains region 2012-17 |

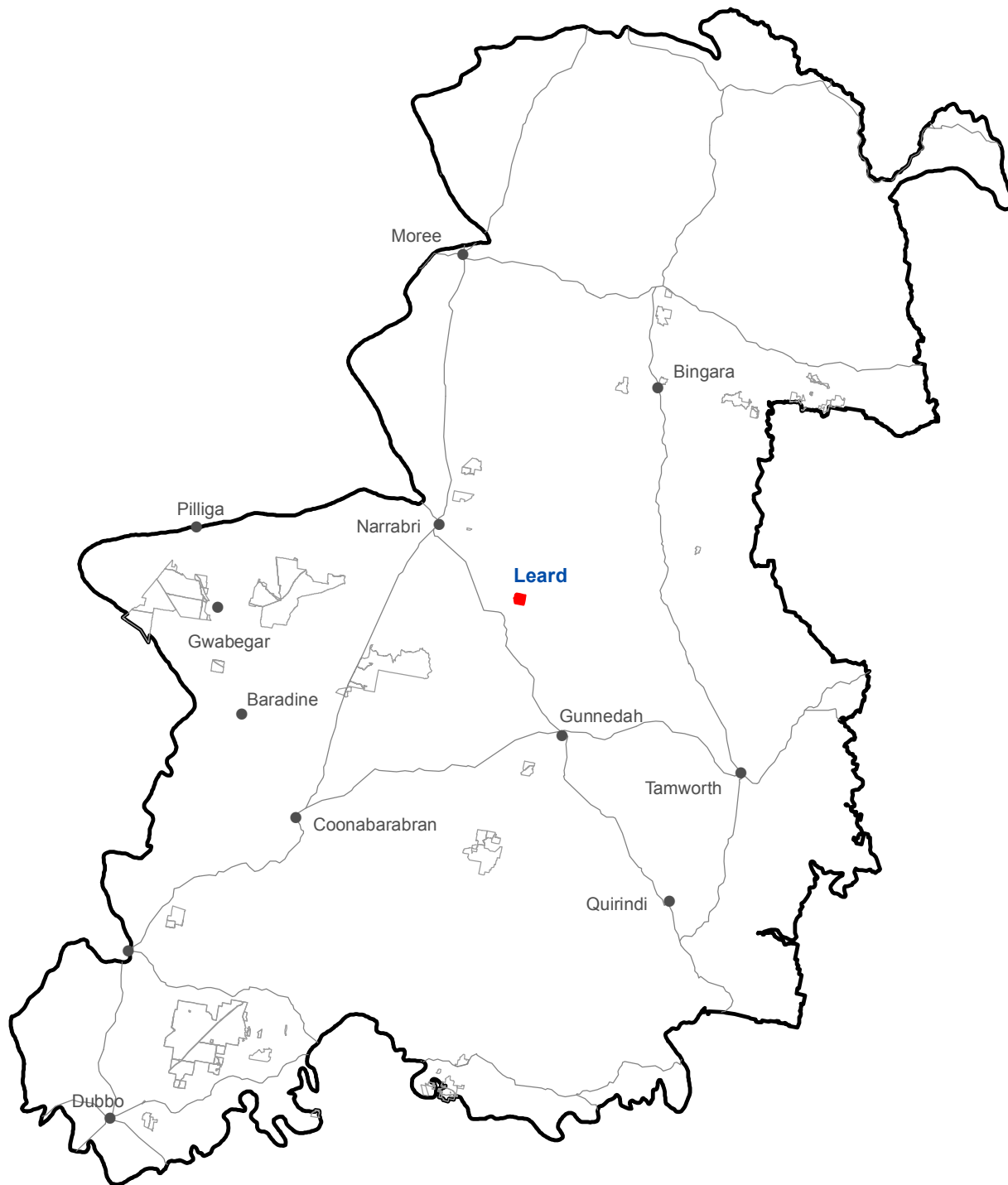
| Fire history | Prescribed burn (hectares) | Wildfire (hectares) |
|--------------|----------------------------|---------------------|
| 2007-08 | 113 | - |
| 2008-09 | 338 | - |
| 2009-10 | - | - |

| Mining | Number of titles |
|-------------|------------------|
| Exploration | 1 petroleum |
| Application | none |

| Apiarist sites |
|----------------|
| None |

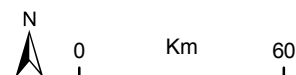
Leard State Conservation Area (1,176 hectares)

Location



- Leard State Conservation Area
- Other Zone 3 State Conservation Areas

Spatial data courtesy of Office of Environment and Heritage.



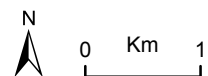
Leard State Conservation Area

Aerial



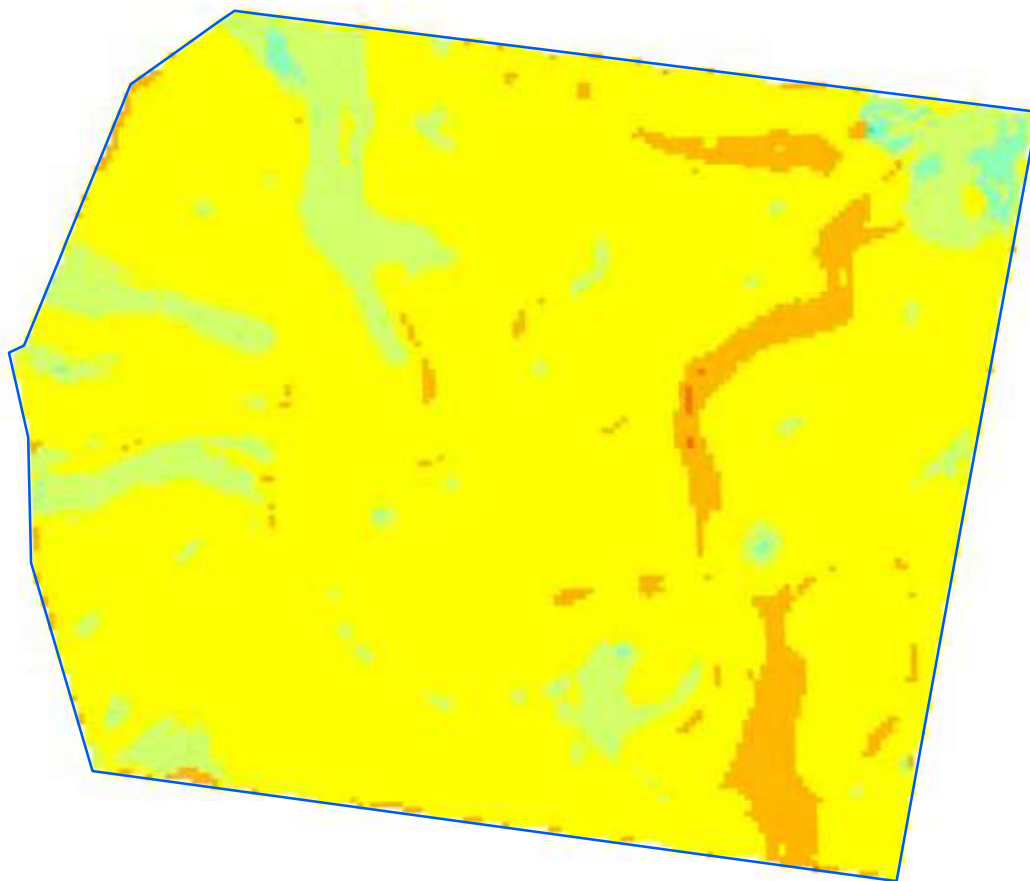
 Leard State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Leard State Conservation Area

Predicted location - white cypress pine



Relative probability (%) of white cypress pine occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- 80 - 90
- 90 - 100

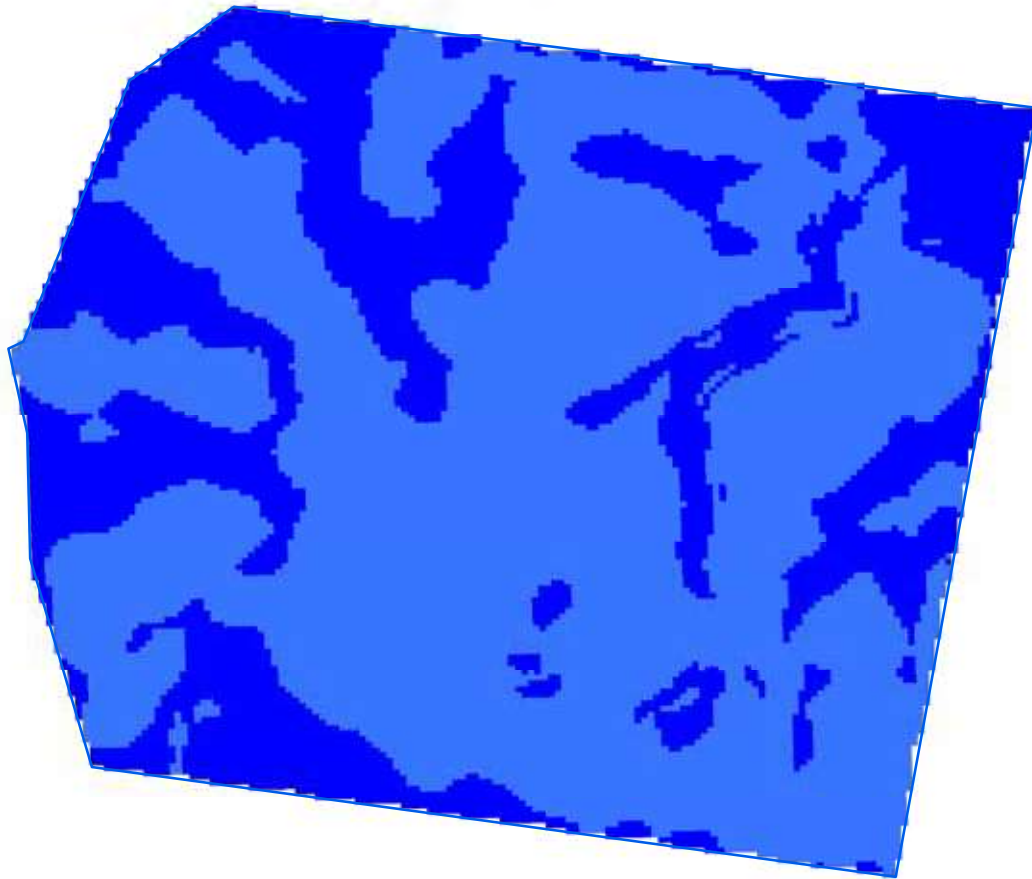
Leard State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Leard State Conservation Area

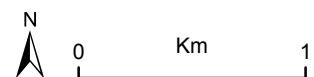
Predicted location - black cypress pine



Relative probability (%) of black cypress pine occurrence

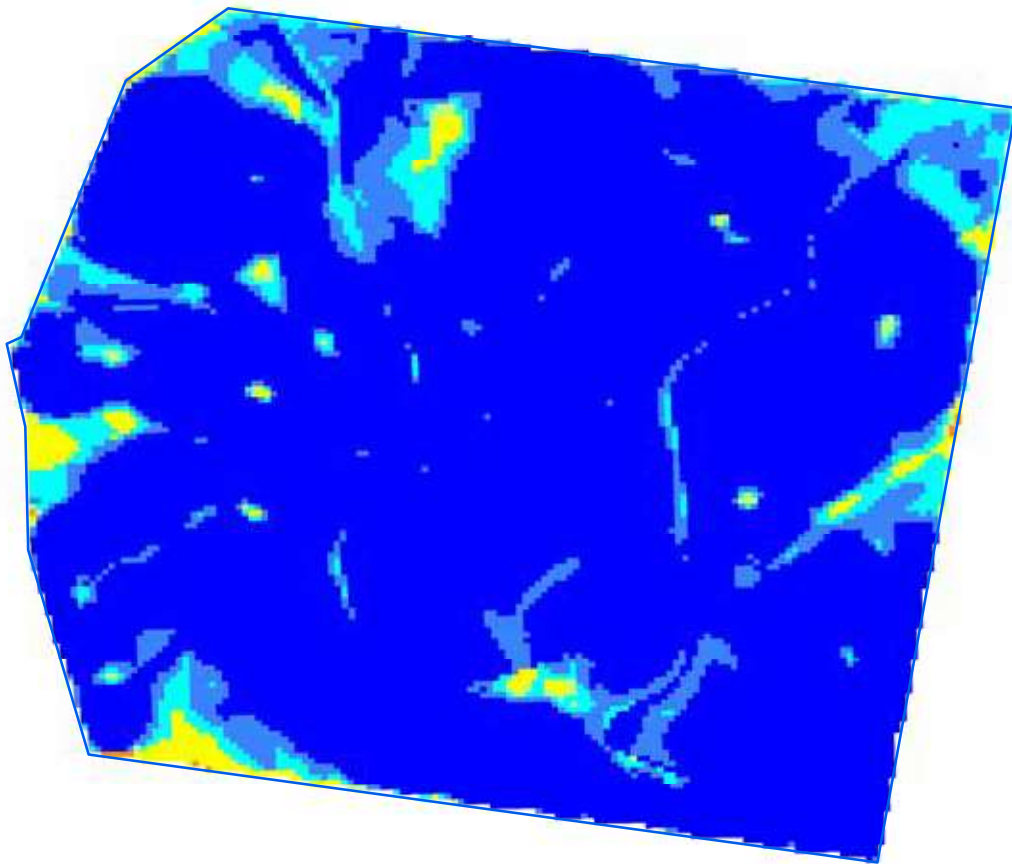
- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- Leard State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Leard State Conservation Area

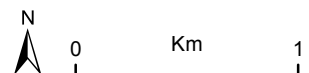
Predicted location - bulloak



Relative probability (%) of bulloak occurrence

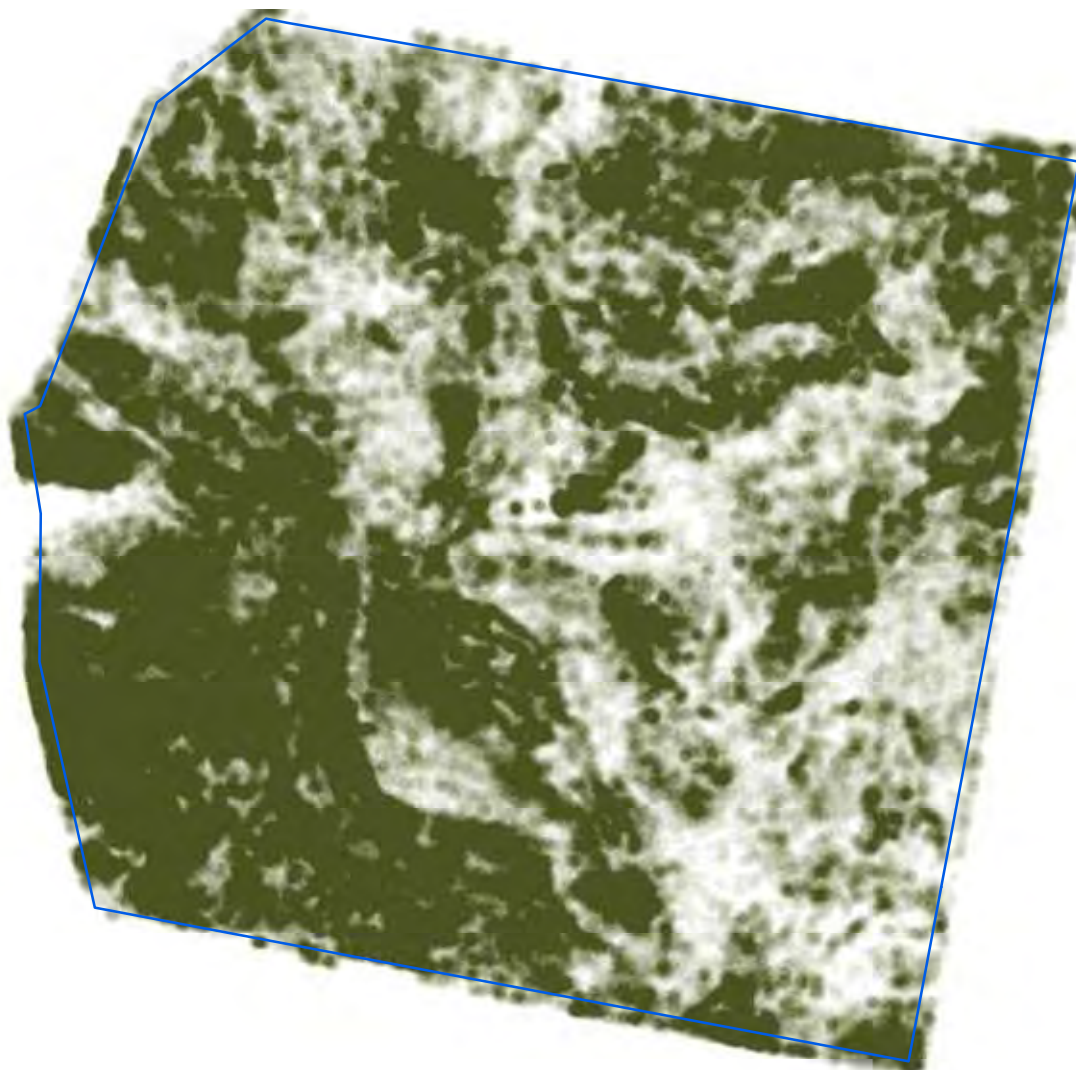
- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- Leard State Conservation Area boundary



Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.




Leard State Conservation Area

Continuous canopy density surface - cypress pine



 More dense canopy
 Less dense canopy

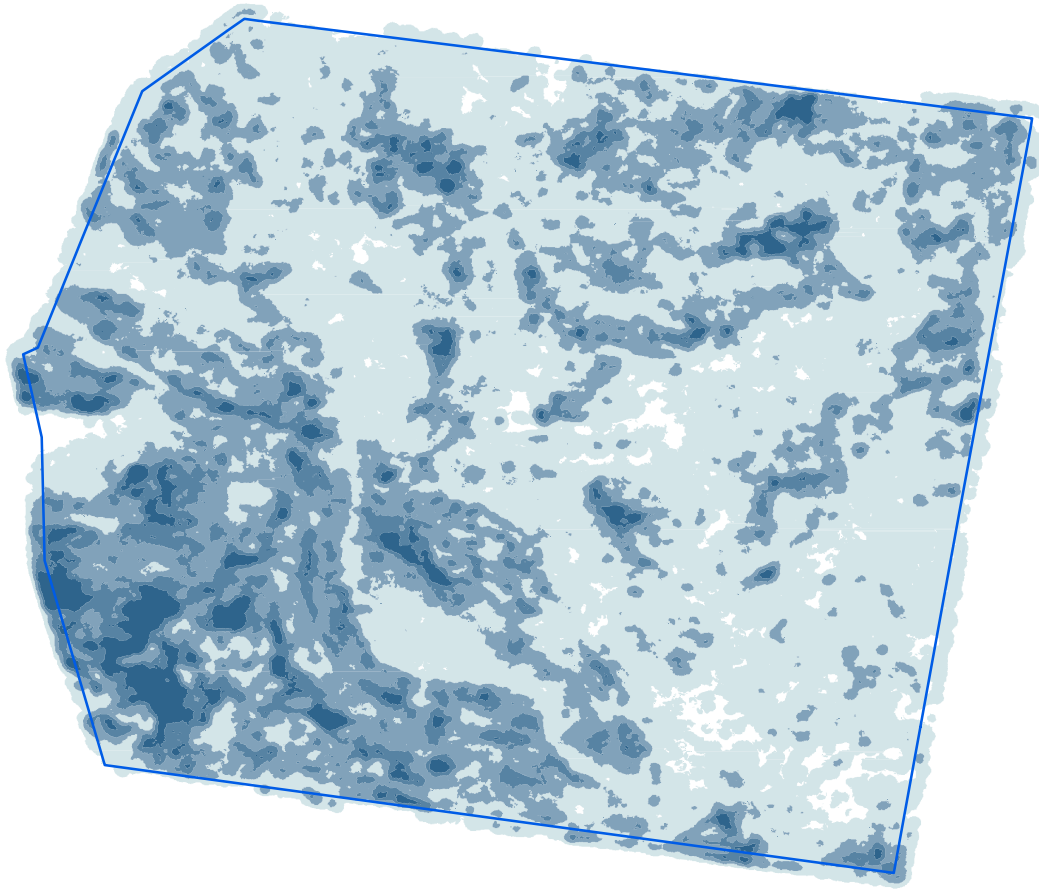
 Leard State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Leard State Conservation Area

Discrete canopy density classes - cypress pine



Canopy density classes

- Class 0 (little or no cypress pine detected)
- Density slice range 1 to 10
- Density slice range 10 to 20
- Density slice range 20 to 30
- Density slice range 30 to 100
- Leard State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Leard State Conservation Area

Summary statistics - spatial analysis

| Area of cypress canopy classes (excludes areas affected by wildfire since 2009) | |
|---|------------------|
| Class | Total (hectares) |
| Class 0 (little or no cypress detected) | 31 |
| Class 1 (1-10 percent) | 667 |
| Class 2 (11-20 percent) | 371 |
| Class 3 (21-30 percent) | 130 |
| Class 4 (>31 percent) | 41 |

| Issues and confidence levels for ADS40 spatial products | | |
|---|--------|-------------------|
| ADS40 image quality | Issues | Confidence levels |
| High | - | Higher |

Leard State Conservation Area

Summary statistics - general

| Lindsay types | Area (hectares) | Proportion of total (%) |
|--------------------------|-----------------|-------------------------|
| White Cypress Pine - Box | 299 | 25 |
| Western Box | 109 | 9 |
| Red Ironbark | 767 | 65 |

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|---|--------------------------|-----------------------|
| VCA 55: Belah woodland on alluvial plains and low rises in the central NSW wheatbelt to Pilliga and Liverpool Plains regions | - | - |
| VCA 35: Brigalow - Belah open forest / woodland on alluvial often gilgaied clay from Pilliga Scrub to Goondiwindi, Brigalow Belt South Bioregion | yes | yes |
| VCA 427: Cypress pine - Tumbledown Red Gum low open woodland to grassland on rocky benches, mainly in the Nandewar Bioregion | - | - |
| VCA 592: Narrow-leaved Ironbark - cypress pine - White Box shrubby open forest in the Brigalow Belt South and Nandewar Bioregions | - | - |
| VCA 511: Queensland Bluegrass - Redleg Grass - Rats Tail Grass - spear grass - panic grass derived grassland of the Nandewar and Brigalow Belt South Bioregions | - | - |
| VCA 587: White Box - White Cypress Pine - Rough-barked Apple shrubby open forest in the Kaputar area of Brigalow Belt South and Nandewar Bioregions | - | - |
| VCA 588: White Box - White Cypress Pine shrubby hills open forest mainly in the Nandewar Bioregion | - | - |

| Native species recorded | | Number | |
|---------------------------------------|--|--------------------------|-----------------------|
| Flora | | 217 | |
| Fauna | | 112 | |
| Threatened species | | | |
| Scientific name | Common name | NSW TSC Act ¹ | EPBC Act ² |
| Flora | | | |
| <i>Lepidium aschersonii</i> | Spiny peppergrass | V | V |
| Fauna | | | |
| <i>Neophema pulchella</i> | Turquoise parrot | V | - |
| <i>Climacteris picumnus victoriae</i> | Brown treecreeper (eastern subspecies) | V | - |
| <i>Chthonicola sagittata</i> | Speckled warbler | V | - |
| <i>Daphoenositta chrysoptera</i> | Varied sittella | V | - |
| <i>Phascolarctos cinereus</i> | Koala | V | V |
| <i>Nyctophilus corbeni</i> | Corben's long-eared bat | V | V |

¹ NSW *Threatened Species Conservation Act 1995*

² Australian Government *Environment Protection and Biodiversity Conservation Act 1999*

| Cultural heritage - Aboriginal and non-Aboriginal | Number of sites |
|---|-----------------|
| AHIMS registered sites | 0 |
| Heritage items or places of historic significance | 1 |

Leard State Conservation Area

Summary statistics - general

| Current management plans | Status |
|---|--------------------------------|
| Plan of management | November 2012 |
| <p>Located north of Boggabri, the Leard State Conservation Area (1,176 hectares) forms part of a corridor between Mount Kaputar National Park and the Pilliga forests. The plan of management aims to conserve both natural and cultural values.</p> <p>Specific management directions: In addition to the general principles for the management of state conservation areas, the management of Leard State Conservation Area will focus on the protection of the significant vegetation communities and encouragement of the use of the reserve for research purposes. Major strategies to achieve these objectives are:</p> <ul style="list-style-type: none"> • the protection of natural values from weeds, feral animals and wildfire and • research into the reserve's natural and cultural values, particularly establishing the reserve's importance as a refuge. | |
| Fire management strategy | April 2009 |
| Regional pest management strategy | Northern plains region 2012-17 |

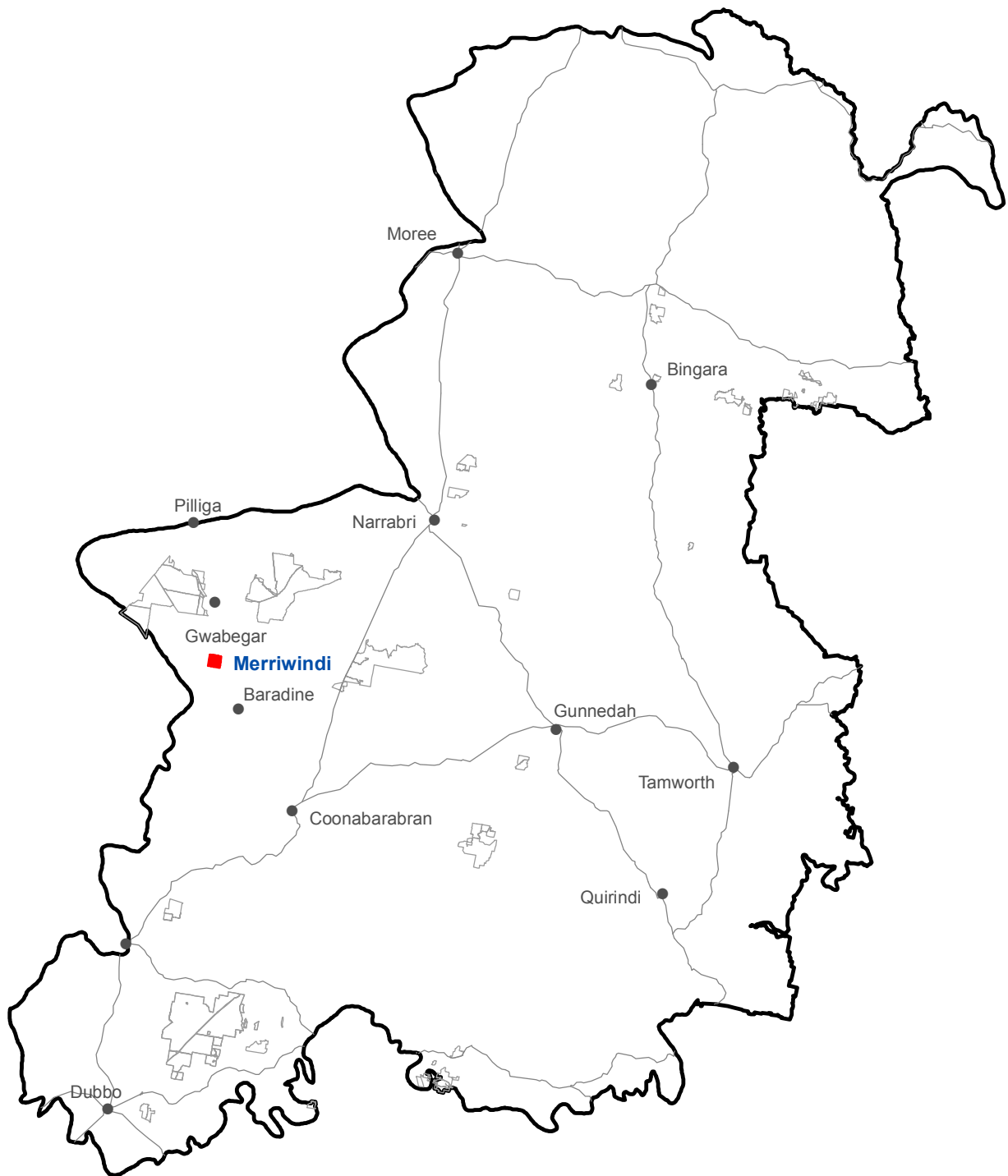
| Fire history | Prescribed burn (hectares) | Wildfire (hectares) |
|-------------------|----------------------------|---------------------|
| 2008-09 - 2012-13 | - | - |

| Mining | Number of titles |
|-------------|---------------------|
| Exploration | 2 coal, 2 petroleum |
| Application | none |

| Apiarist sites |
|----------------|
| None |

Merriwindi State Conservation Area (1,730 hectares)

Location



- Merriwindi State Conservation Area
- Other Zone 3 State Conservation Areas


Spatial data courtesy of Office of Environment and Heritage.



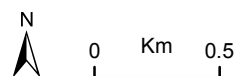
Merriwindi State Conservation Area

Aerial



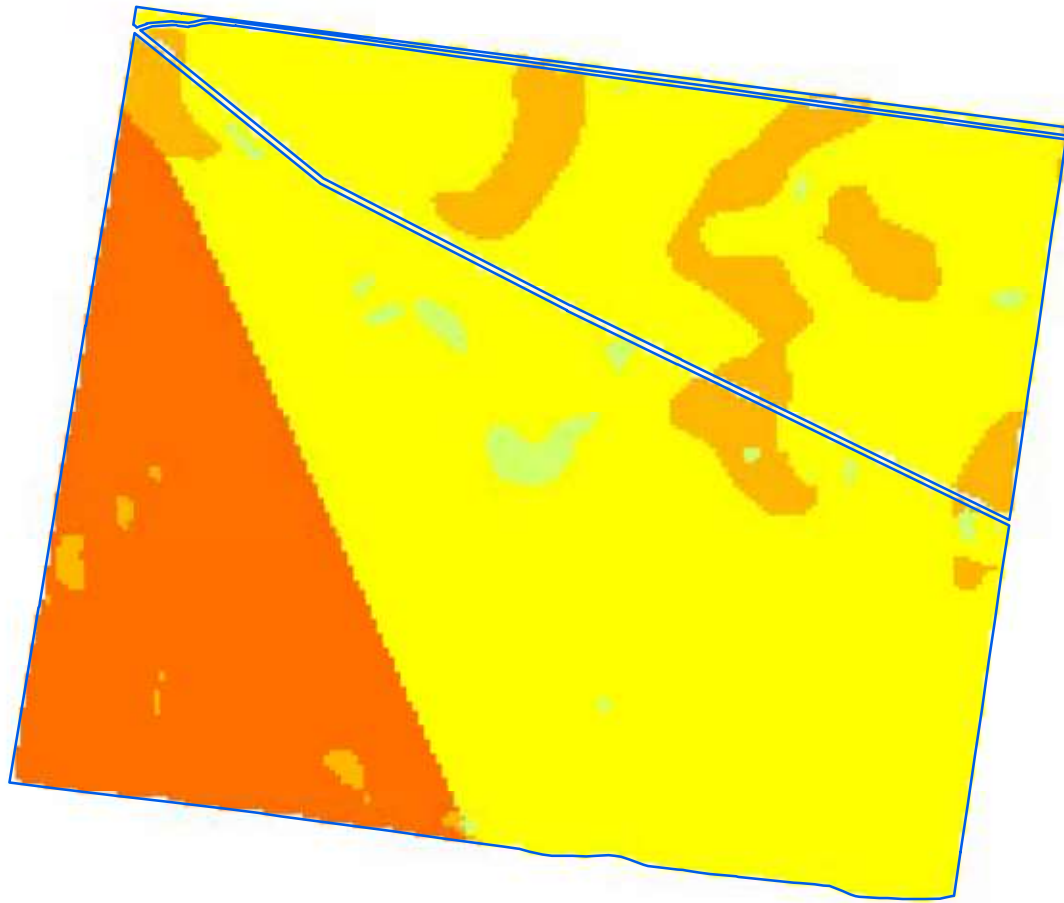
 Merriwindi State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Merriwindi State Conservation Area

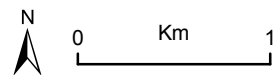
Predicted location - white cypress pine



Relative probability (%) of white cypress pine occurrence

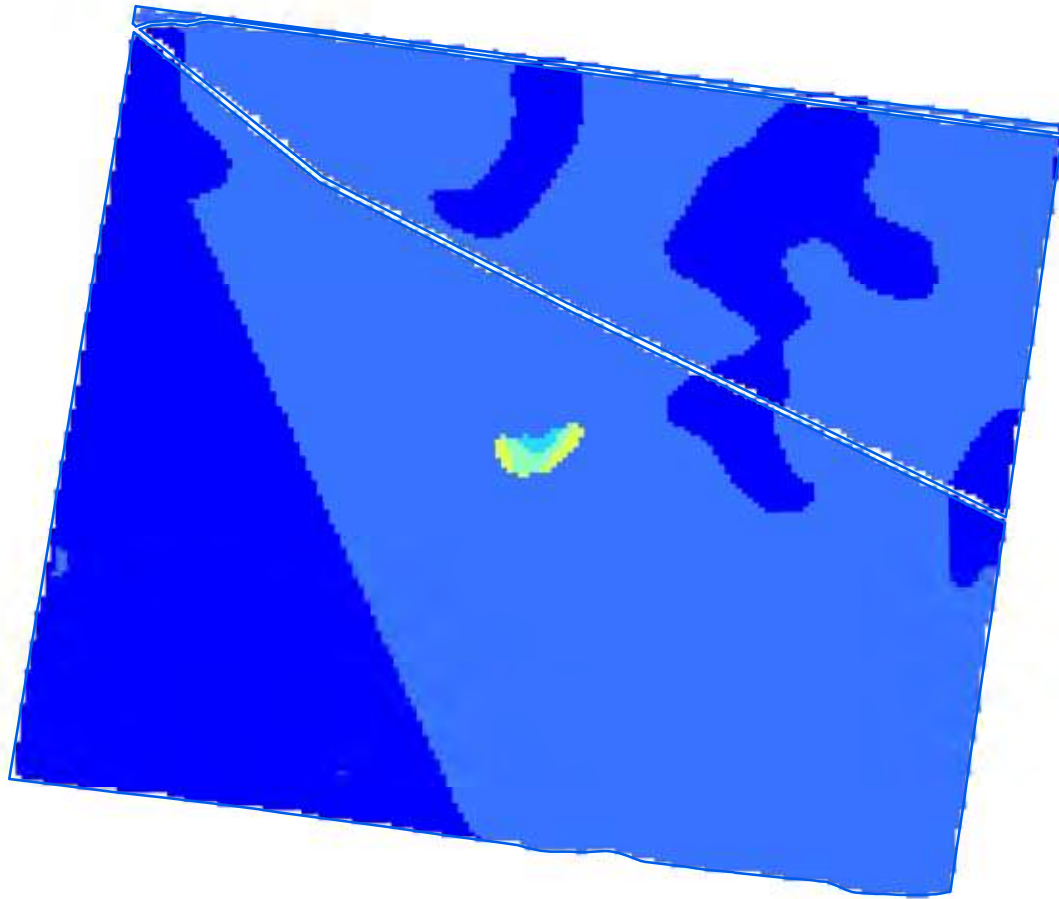
- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- 80 - 90
- 90 - 100
- Merriwindi State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Merriwindi State Conservation Area

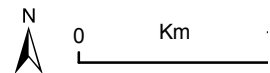
Predicted location - black cypress pine



Relative probability (%) of black cypress pine occurrence

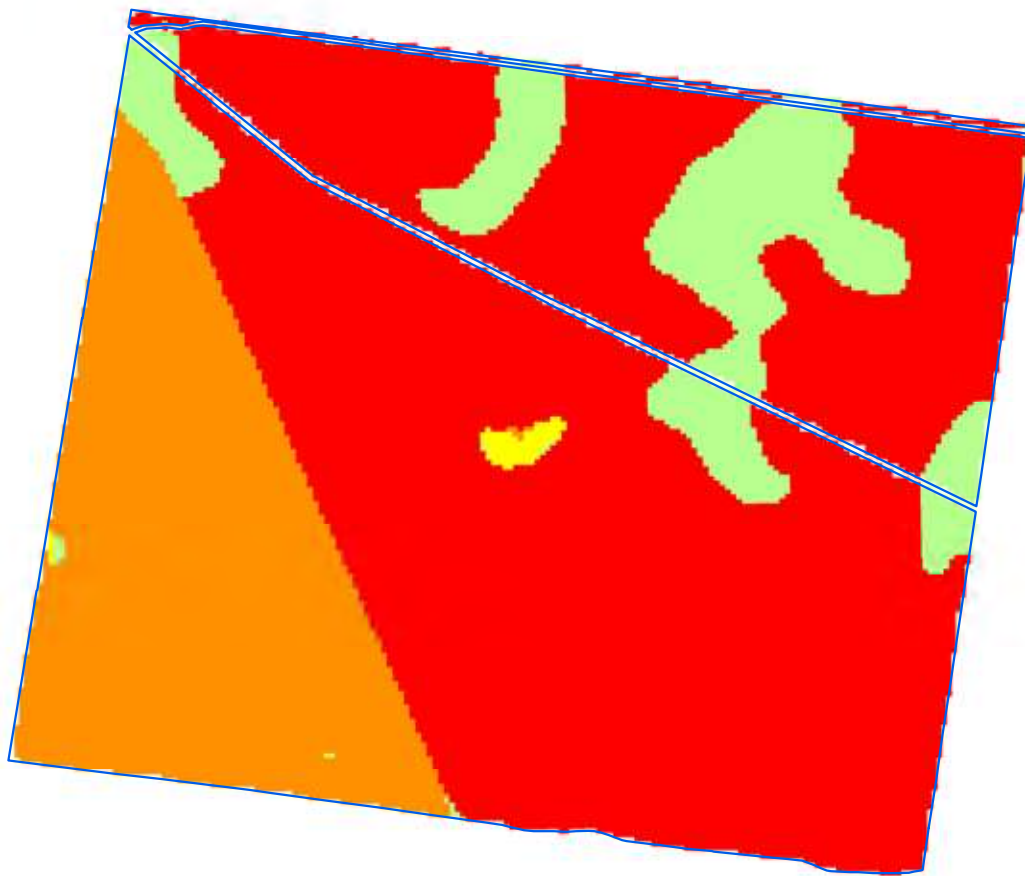
- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- Merriwindi State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Merriwindi State Conservation Area

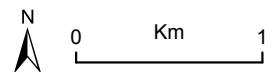
Predicted location - bulloak



Relative probability (%) of bulloak occurrence

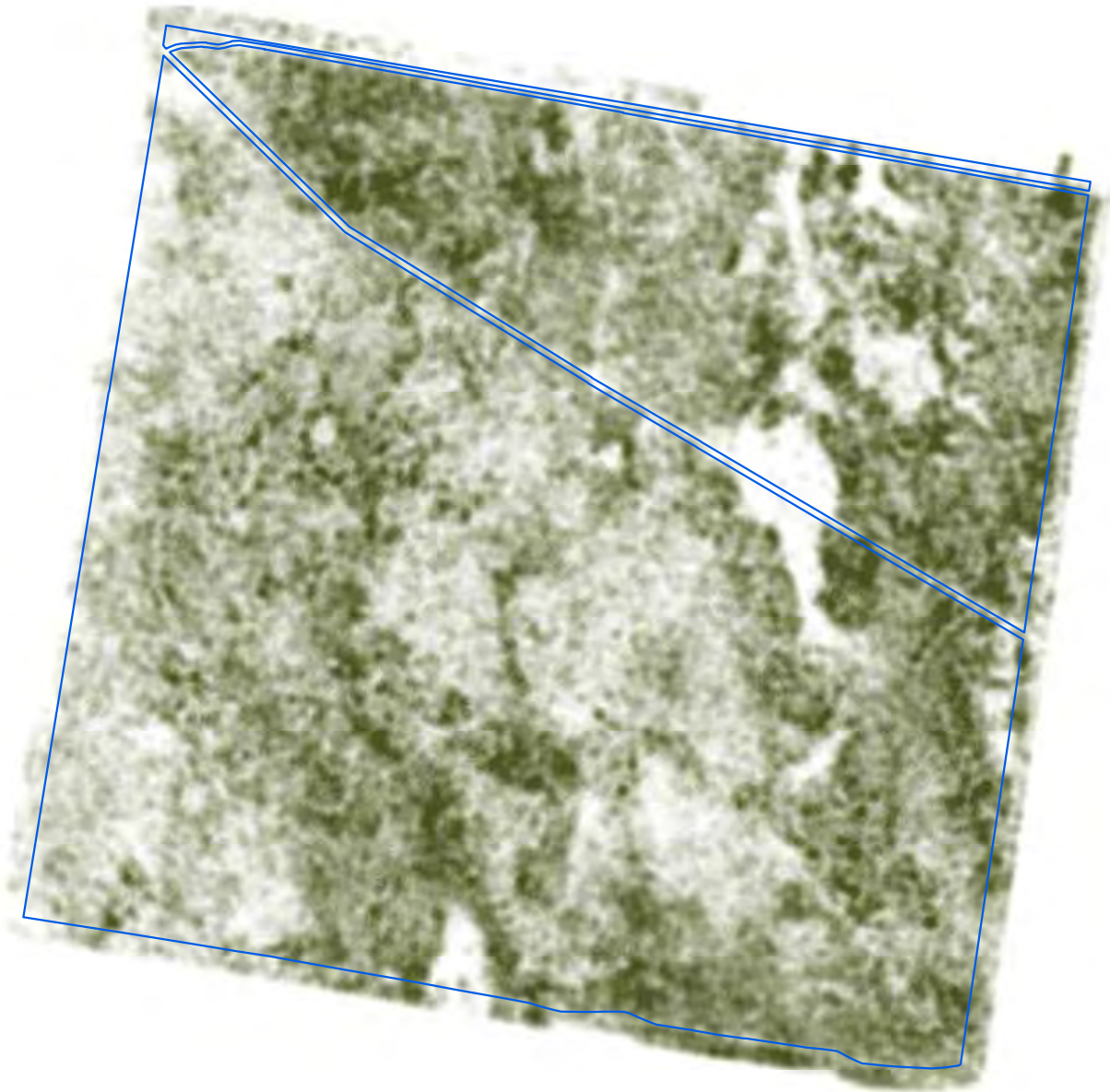
- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- Merriwindi State Conservation Area boundary



Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.




Merriwindi State Conservation Area

Continuous canopy density surface - cypress pine



 More dense canopy
 Less dense canopy

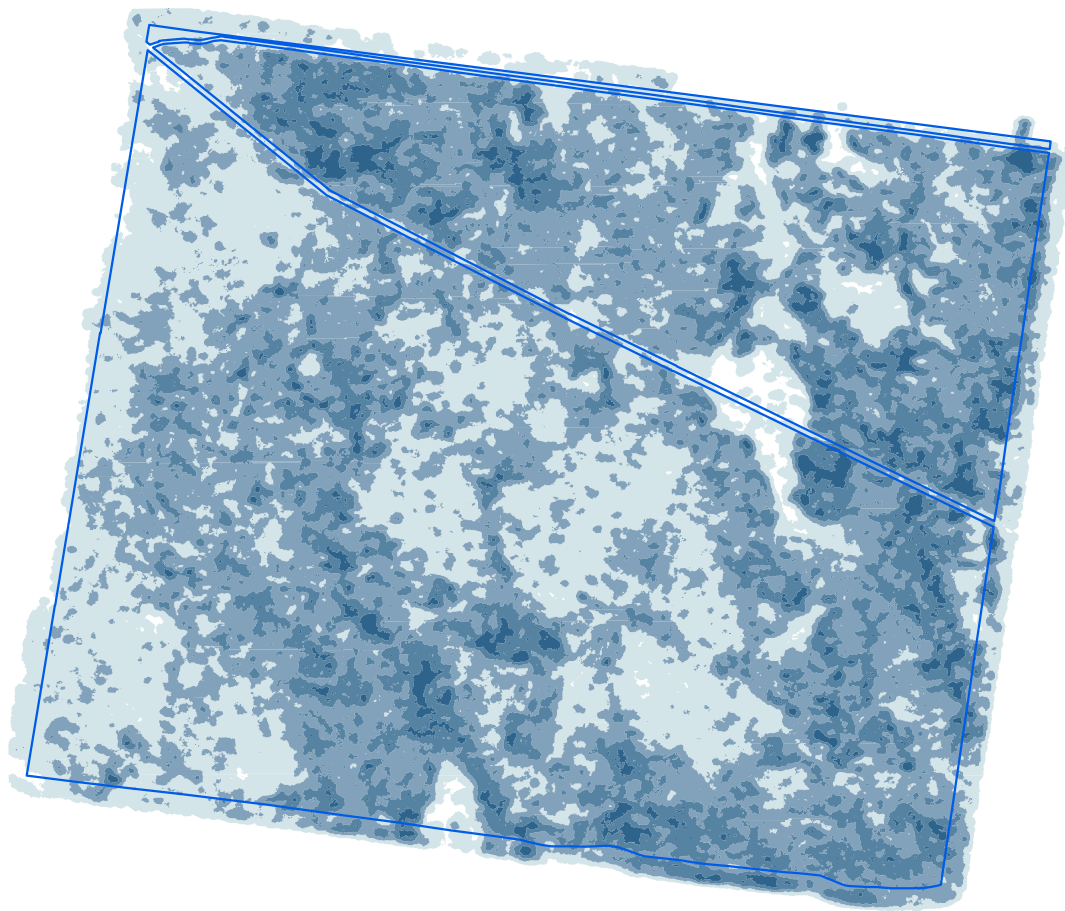
 Merriwindi State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).









Merriwindi State Conservation Area

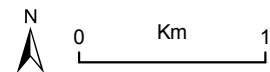
Discrete canopy density classes - cypress pine



Canopy density classes

-  Class 0 (little or no cypress pine detected)
-  Density slice range 1 to 10
-  Density slice range 10 to 20
-  Density slice range 20 to 30
-  Density slice range 30 to 100
-  Merriwindi State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Merriwindi State Conservation Area

Summary statistics - spatial analysis

| Area of cypress canopy classes (excludes areas affected by wildfire since 2009) | |
|---|------------------|
| Class | Total (hectares) |
| Class 0 (little or no cypress detected) | 63 |
| Class 1 (1-10 percent) | 600 |
| Class 2 (11-20 percent) | 780 |
| Class 3 (21-30 percent) | 385 |
| Class 4 (>31 percent) | 63 |

| Issues and confidence levels for ADS40 spatial products | | |
|---|--------|-------------------|
| ADS40 image quality | Issues | Confidence levels |
| High | - | Higher |

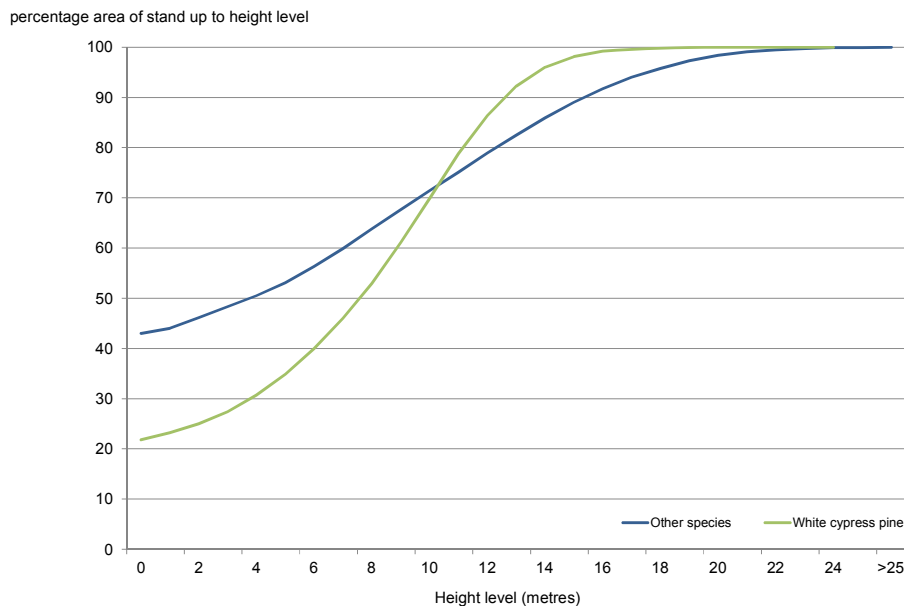
Merriwindi State Conservation Area

Summary statistics - spatial analysis

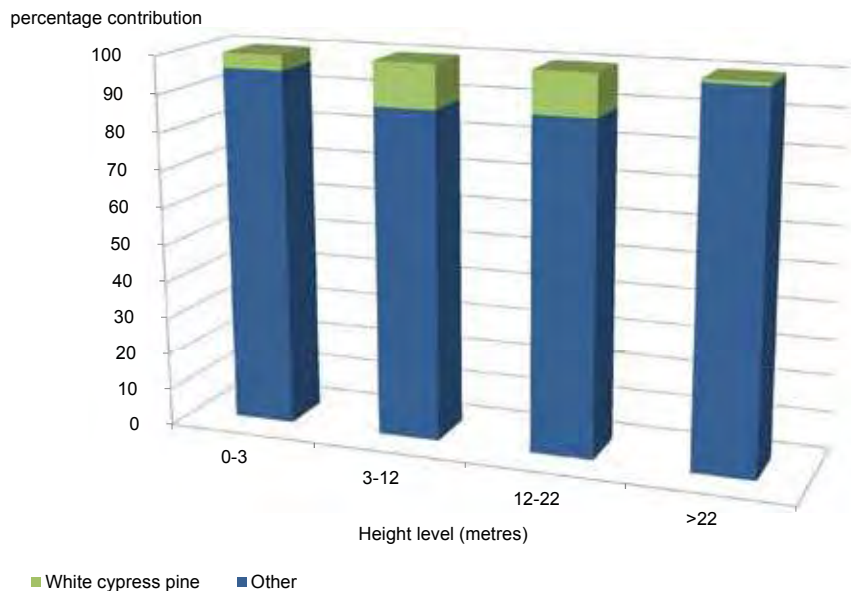
Light detection and ranging (LiDAR) data and analysis

Cumulative height and percentage cover charts show the average cumulative height for white cypress pine and other species, averaged over the State Conservation Area. The figures also show the relative proportion of white cypress pine cover and other species' cover within four height classes, averaged over the State Conservation Area.

Cumulative height chart



Percentage cover chart



Key insights include:

- Higher proportion of larger white cypress trees (note steeper part of slope is between 10 and 16 metres, which contains almost 50 percent of cypress cover). Also a higher proportion of smaller cypress.
- Relatively higher area of white cypress pine cover in the 0 - 3 metre height range.
- Uniform white cypress coverage in the 3 - 12 and 12 - 22 metre height range.
- Average white cypress pine cover contribution is 7.9 percent across all height classes.

Merriwindi State Conservation Area

Summary statistics - general

| Lindsey types | Area (hectares) | Proportion of total (%) |
|---|-----------------|-------------------------|
| Red Gum - Narrowleaf Ironbark - White Cypress Pine (Lindsay Types) | 380 | 23 |
| Narrowleaf Ironbark - Forest Oak - White Cypress Pine (Lindsay Types) | 52 | 3 |
| White Cypress Pine - Narrowleaf Ironbark - Forest Oak (Lindsay Types) | 941 | 56 |
| Pilliga Box - White Cypress Pine (Lindsay Types) | 294 | 17 |
| White Cypress Pine - Pilliga Box (Lindsay Types) | 20 | 1 |

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|--|--------------------------|-----------------------|
| VCA 409: Dirty (Baradine) Gum - White Bloodwood - White Cypress Pine - Motherumbah shrubby woodland on sandy soils in the Pilliga Scrub and surrounding region, Brigalow Belt South Bioregion | - | - |
| VCA 398: Narrow-leaved Ironbark - White Cypress Pine - Buloke tall open forest on lower slopes and flats in the Pilliga Scrub and surrounding forests in the central north Brigalow Belt South Bioregion | - | - |
| VCA 88: Pilliga Box - White Cypress Pine - Buloke shrubby woodland in the Brigalow Belt South Bioregion | - | - |

¹ NSW *Threatened Species Conservation Act 1995*

² Australian Government *Environment Protection and Biodiversity Conservation Act 1999*

| Native species recorded | | Number | |
|---|---|--------------------------|-----------------------|
| Flora | | 48 | |
| Fauna | | 94 | |
| Threatened species | | | |
| Scientific name | Common name | NSW TSC Act ¹ | EPBC Act ² |
| Flora | | | |
| - | - | - | - |
| Fauna | | | |
| <i>Ephippiorhynchus asiaticus</i> | Black-necked stork | E1 | - |
| <i>Ninox connivens</i> | Barking owl | V | - |
| <i>Climacteris picumnus victoriae</i> | Brown treecreeper (eastern subspecies) | V | - |
| <i>Melithreptus gularis gularis</i> | Black-chinned honeyeater (eastern subspecies) | V | - |
| <i>Pomatostomus temporalis temporalis</i> | Grey-crowned babbler (eastern subspecies) | V | - |
| <i>Daphoenositta chrysoptera</i> | Varied sittella | V | - |
| <i>Melanodryas cucullata cucullata</i> | Hooded robin (south-eastern form) | V | - |
| <i>Phascolarctos cinereus</i> | Koala | V | V |
| <i>Petaurus norfolcensis</i> | Squirrel glider | V | - |
| <i>Saccolaimus flaviventris</i> | Yellow-bellied sheath-tail-bat | V | - |

Merriwindi State Conservation Area

Summary statistics - general

| Cultural heritage - Aboriginal and non-Aboriginal | Number of sites |
|---|-----------------|
| AHIMS registered sites | 1 |
| Heritage items or places of historic significance | 0 |

| Current management plans | Status |
|-----------------------------------|--------------------------------|
| Plan of management | no |
| Fire management strategy | October 2009 |
| Regional pest management strategy | Northern plains region 2012-17 |

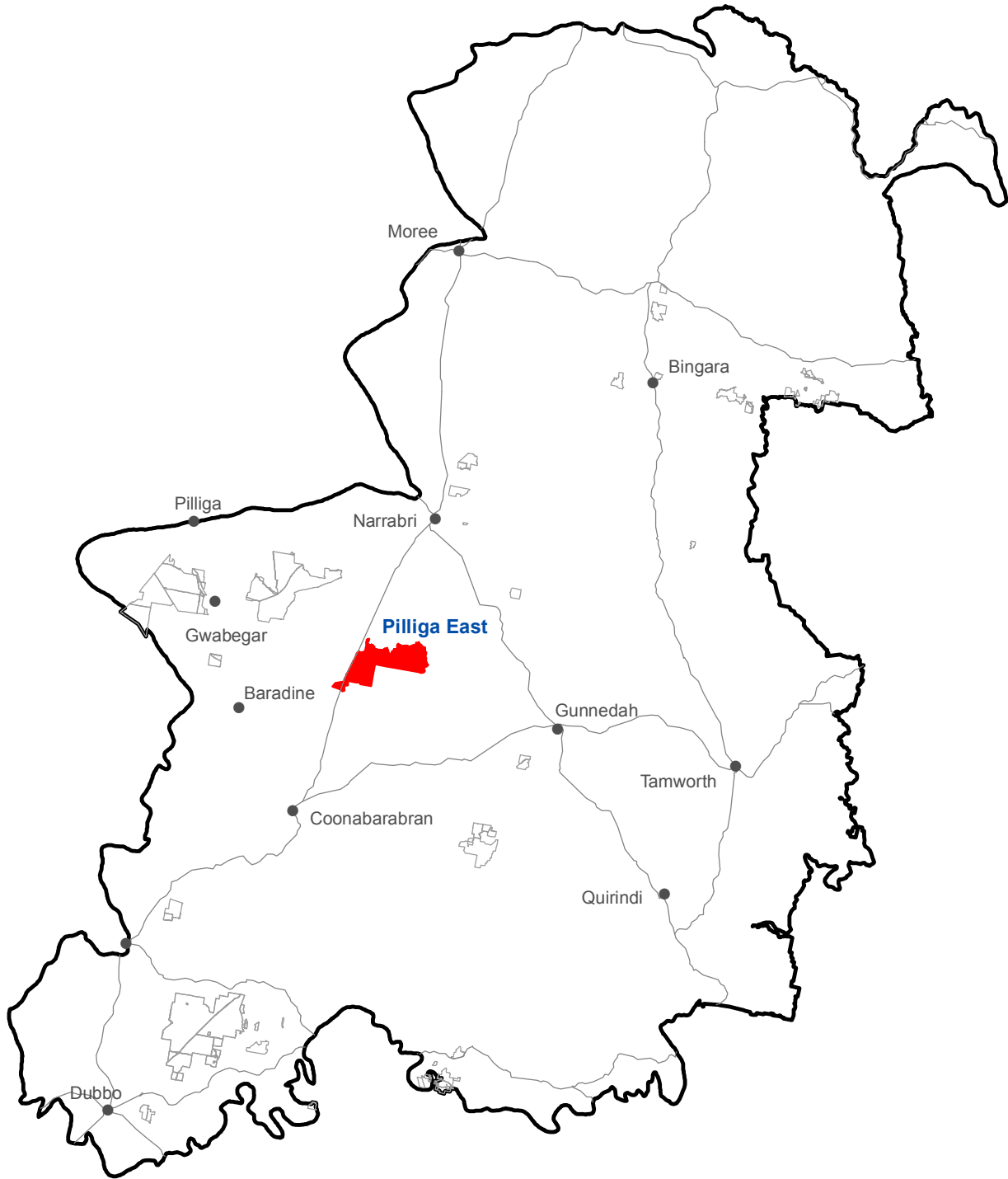
| Fire history | Prescribed burn (hectares) | Wildfire (hectares) |
|-------------------|----------------------------|---------------------|
| 2008-09 - 2012-13 | - | - |

| Mining | Number of titles |
|-------------|------------------|
| Exploration | 2 petroleum |
| Application | none |

| Apiarist sites |
|----------------|
| None |

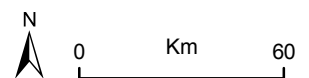
Pilliga East State Conservation Area (24,669 hectares)

Location



- Pilliga East State Conservation Area
- Other Zone 3 State Conservation Areas


Spatial data courtesy of Office of Environment and Heritage.



Pilliga East State Conservation Area

Aerial



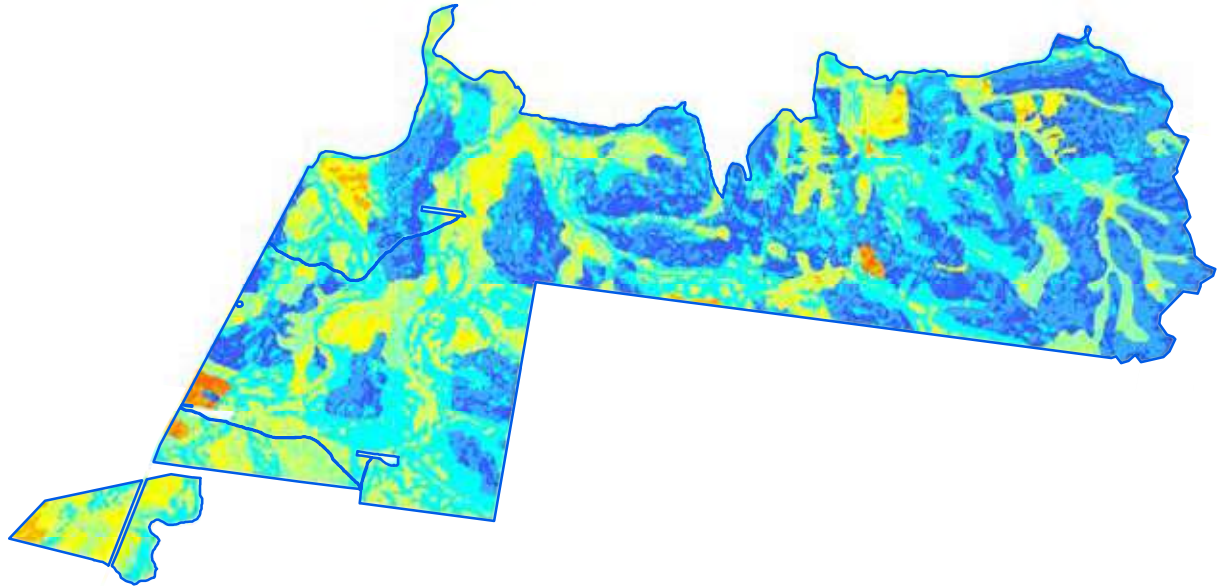
 Pilliga East State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Pilliga East State Conservation Area

Predicted location - white cypress pine

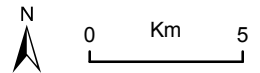


Relative probability (%) of white cypress pine occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- 80 - 90
- 90 - 100

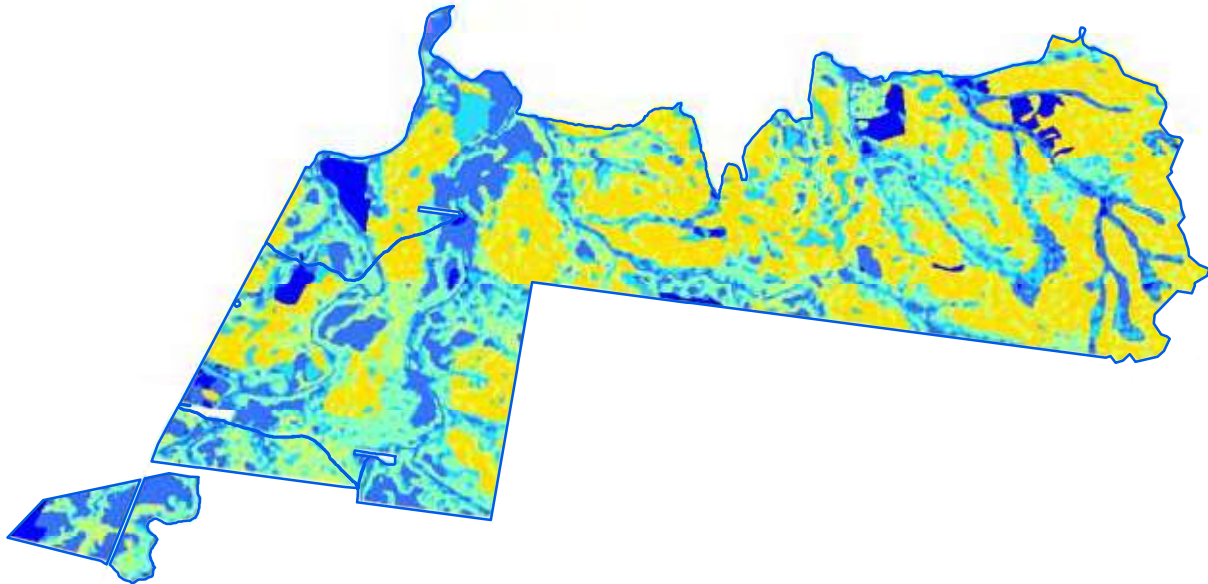
□ Pilliga East State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Pilliga East State Conservation Area

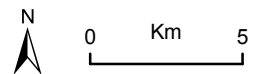
Predicted location - black cypress pine



Relative probability (%) of black cypress pine occurrence

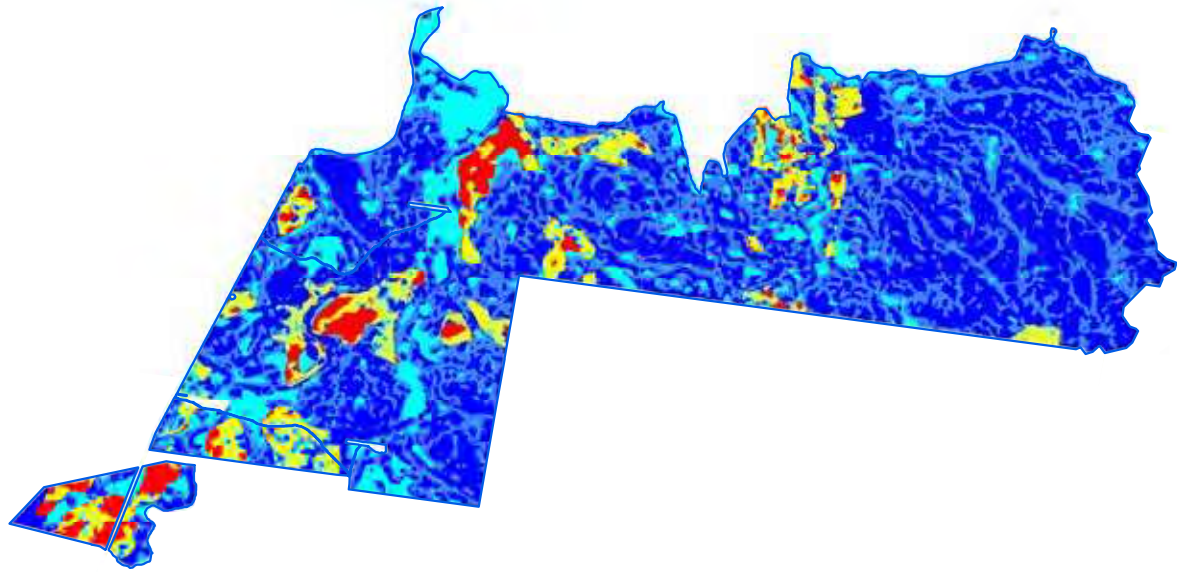
- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- Pilliga East State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.

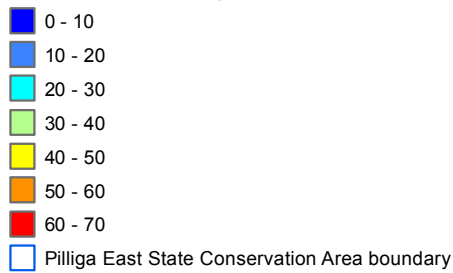


Pilliga East State Conservation Area

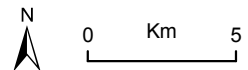
Predicted location - bulloak



Relative probability (%) of bulloak occurrence




Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.




Pilliga East State Conservation Area

Continuous canopy density surface - cypress pine



 More dense canopy
Less dense canopy

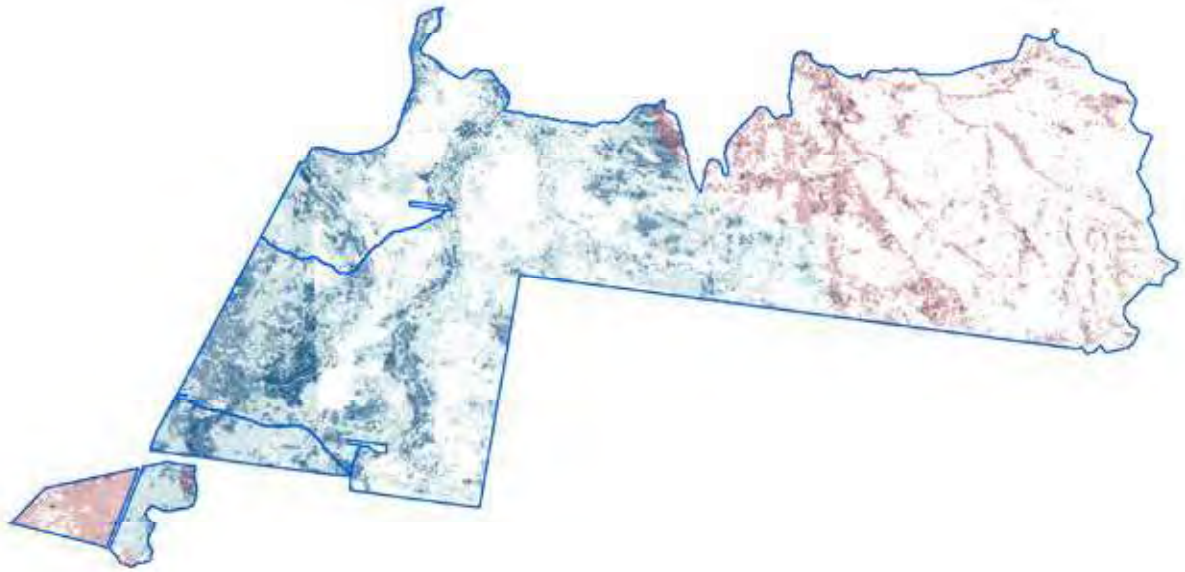
 Pilliga East State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Pilliga East State Conservation Area

Discrete canopy density classes - cypress pine



Wildfire since 2004-05

Canopy density classes

Class 0 (little or no cypress pine detected)

Density slice range 1 to 10

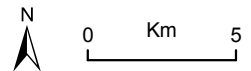
Density slice range 10 to 20

Density slice range 20 to 30

Density slice range 30 to 100

Pilliga East State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Pilliga East State Conservation Area

Summary statistics - spatial analysis

| Area of cypress canopy classes (excludes areas affected by wildfire since 2009) | |
|---|------------------|
| Class | Total (hectares) |
| Class 0 (little or no cypress detected) | 5,012 |
| Class 1 (1-10 percent) | 6,546 |
| Class 2 (11-20 percent) | 2,423 |
| Class 3 (21-30 percent) | 666 |
| Class 4 (>31 percent) | 203 |

| Issues and confidence levels for ADS40 spatial products | | |
|---|---|-------------------|
| ADS40 image quality | Issues | Confidence levels |
| Low-high | Image classification and mapping includes other species and fire regrowth | Lower |

Pilliga East State Conservation Area

Summary statistics - general

| Lindsay types | Area (hectares) | Proportion of total (%) |
|---|-----------------|-------------------------|
| Roughbark Apple - Red Gum (<i>blakeyi</i>) | 17 | <1 |
| Red Gum (<i>E. blakelyi</i>) (Blakely's Red Gum) (Lindsay Types) | 1,019 | 4 |
| Red Gum - Roughbark Apple | 2,235 | 9 |
| Red Gum (<i>blakeyi</i>) - Roughbark Apple - Narrowleaf Ironbark | 171 | 1 |
| Red Gum - Roughbark Apple - Smoothbark Apple | 136 | 1 |
| Red Gum - Roughbark Apple - White Cypress Pine (Lindsay Types) | 5,907 | 24 |
| Red Gum - Narrowleaf Ironbark | 305 | 1 |
| Red Gum - Narrowleaf Ironbark - White Cypress Pine (Lindsay Types) | 381 | 2 |
| Red Gum - Broadleaf Ironbark | 599 | 2 |
| Red Gum - Broadleaf Ironbark - White Cypress Pine | 391 | 2 |
| Red Gum - Broadleaf Ironbark - Bloodwood | 107 | <1 |
| Black Pine - Broadleaf Ironbark (Lindsay Types) | 56 | <1 |
| Red Gum - Roughbark Apple | 36 | <1 |
| Narrowleaf Ironbark (Lindsay Types) | 12 | <1 |
| Narrowleaf Ironbark - Forest Oak - White Cypress Pine (Lindsay Types) | 2,444 | 10 |
| Narrowleaf Ironbark - Cypress Pine | 169 | 1 |
| Narrowleaf Ironbark - Bloodwood - Cypress Pine | 111 | <1 |
| Broadleaf Ironbark (Lindsay Types) | 144 | 1 |
| Broadleaf Ironbark - Red Gum (<i>blakeyi</i>) | 11 | <1 |
| Broadleaf Ironbark - White Cypress Pine (Lindsay Types) | 415 | 2 |
| Broadleaf Ironbark - Bloodwood (Lindsay Types) | 8,340 | 34 |
| Broadleaf Ironbark - Bloodwood - Black Pine (Lindsay Types) | 706 | 3 |
| Broadleaf Ironbark - Bloodwood - White Cypress Pine (Lindsay Types) | 256 | 1 |
| No evidence of clearing by man (Lindsay Types) | 63 | <1 |
| White Cypress Pine - Red Gum | 29 | <1 |
| White Cypress Pine - Red Gum - Roughbark Apple (Lindsay Types) | 212 | 1 |
| White Cypress Pine - Narrowleaf Ironbark | 12 | <1 |
| White Cypress Pine - Narrowleaf Ironbark - Forest Oak (Lindsay Types) | 119 | <1 |
| White Cypress Pine - Broadleaf Ironbark (Lindsay Types) | 18 | <1 |
| Bloodwood (Lindsay Types) | 5 | <1 |
| Bloodwood - Broom (<i>Melaleuca uncinata</i>) | 81 | <1 |
| Untyped | 41 | <1 |

Pilliga East State Conservation Area

Summary statistics - general

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|--|--------------------------|-----------------------|
| VCA 423: Blue-leaved Ironbark - Black Cypress Pine - Rough-barked Apple woodland mainly in the east Pilliga forests, Brigalow Belt South bioregion | - | - |
| VCA 141: Broombush - wattle very tall shrubland of the Pilliga to Goonoo regions, Brigalow Belt South Bioregion | - | - |
| VCA 409: Dirty (Baradine) Gum - White Bloodwood - White Cypress Pine - Motherumbah shrubby woodland on sandy soils in the Pilliga Scrub and surrounding region, Brigalow Belt South Bioregion | - | - |
| VCA 408: Dirty Gum (Baradine Gum) - Black Cypress Pine - White Bloodwood shrubby woodland on of the Pilliga forests and surrounding region | - | - |
| VCA 424: Dwyers Red Gum heathy low open woodland on sandstone ridges in the Pilliga Scrub, Brigalow Belt South Bioregion | - | - |
| VCA 379: Inland Scribbly Gum - White Bloodwood - Red Stringybark - Black Cypress Pine shrubby sandstone woodland mainly of the Warrumbungle NP - Pilliga region in the Brigalow Belt South Bioregion | - | - |
| VCA 398: Narrow-leaved Ironbark - White Cypress Pine - Buloke tall open forest on lower slopes and flats in the Pilliga Scrub and surrounding forests in the central north Brigalow Belt South Bioregion | - | - |
| VCA 399: Red gum - Rough-barked Apple +/- tea tree sandy creek woodland (wetland) in the Pilliga - Goonoo sandstone forests, Brigalow Belt South Bioregion | - | - |
| VCA 401: Rough-barked Apple - red gum - cypress pine woodland on sandy flats, mainly in the Pilliga Scrub region | - | - |
| VCA 422: Smooth-barked Apple - cypress pine - Narrow-leaved Ironbark - White Bloodwood tall heathy woodland of the Pilliga forests to Warialda region, Brigalow Belt South Bioregion | - | - |
| VCA 407: White Bloodwood - ironbark - Black Cypress Pine shrubby sandstone hill woodland of the southern Pilliga forests | - | - |
| VCA 406: White Bloodwood - Motherumbah - Red Ironbark shrubby sandstone hill woodland / open forest mainly in east Pilliga forests | - | - |
| VCA 405: White Bloodwood - Red Ironbark - cypress pine shrubby sandstone woodland of the Pilliga Scrub and surrounding regions | - | - |
| VCA 421: Yellow Box - White Cypress Pine alluvial terrace flats grassy woodland in the Pilliga forests to Warialda region, Brigalow Belt South Bioregion | yes | yes |

¹ NSW *Threatened Species Conservation Act 1995*

² Australian Government *Environment Protection and Biodiversity Conservation Act 1999*

| Native species recorded | | Number | |
|------------------------------|-------------|--------------------------|-----------------------|
| Flora | | 415 | |
| Fauna | | 141 | |
| Threatened species | | | |
| Scientific name | Common name | NSW TSC Act ¹ | EPBC Act ² |
| Flora | | | |
| <i>Rulingia procumbens</i> | | V | V |
| <i>Philotheca ericifolia</i> | | - | V |

Pilliga East State Conservation Area

Summary statistics - general

| Threatened species | | | |
|---|---|--------------------------|-----------------------|
| Scientific name | Common name | NSW TSC Act ¹ | EPBC Act ² |
| Fauna | | | |
| <i>Lophoictinia isura</i> | Square-tailed kite | V | - |
| <i>Calyptorhynchus lathamii</i> | Glossy black-cockatoo | V | - |
| <i>Glossopsitta pusilla</i> | Little lorikeet | V | - |
| <i>Neophema pulchella</i> | Turquoise parrot | V | - |
| <i>Climacteris picumnus victoriae</i> | Brown treecreeper (eastern subspecies) | V | - |
| <i>Chthonicola sagittata</i> | Speckled warbler | V | - |
| <i>Pomatostomus temporalis temporalis</i> | Grey-crowned babbler (eastern subspecies) | V | - |
| <i>Melanodryas cucullata cucullata</i> | Hooded robin (south-eastern form) | V | - |
| <i>Stagonopleura guttata</i> | Diamond firetail | V | - |
| <i>Phascolarctos cinereus</i> | Koala | V | V |
| <i>Petaurus norfolcensis</i> | Squirrel glider | V | - |
| <i>Pseudomys pilligaensis</i> | Pilliga mouse | V | V |

| Cultural heritage - Aboriginal and non-Aboriginal | Number of sites |
|---|-----------------|
| AHIMS registered sites | 12 |
| Heritage items or places of historic significance | 4 |

| Current management plans | Status |
|-----------------------------------|--------------------------------|
| Plan of management | no |
| Fire management strategy | May 2012 |
| Regional pest management strategy | Northern plains region 2012-17 |

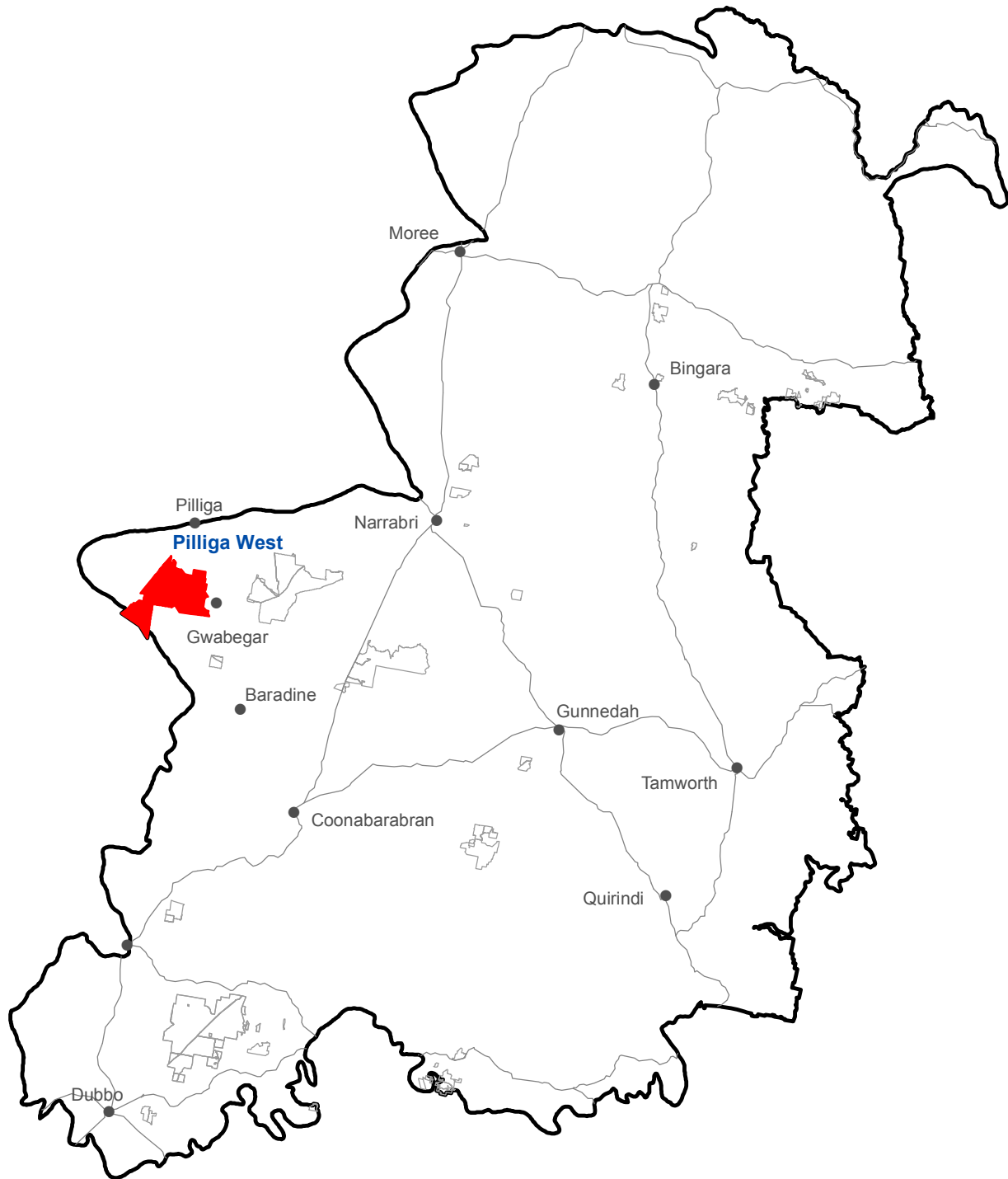
| Fire history | Prescribed burn (hectares) | Wildfire (hectares) |
|--------------|----------------------------|---------------------|
| 2005-06 | 1,866 | - |
| 2006-07 | - | 10,206 |
| 2007-08 | 9 | - |
| 2008-09 | 1,993 | - |
| 2009-10 | 1,656 | - |
| 2010-11 | 3 | - |
| 2012-13 | 2 | 148 |

| Mining | Number of titles |
|-------------|---------------------|
| Exploration | 1 coal, 1 petroleum |
| Application | none |

| Apiarist sites |
|----------------|
| 58 |

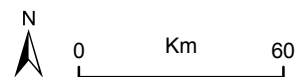
Pilliga West State Conservation Area (34,415 hectares)

Location



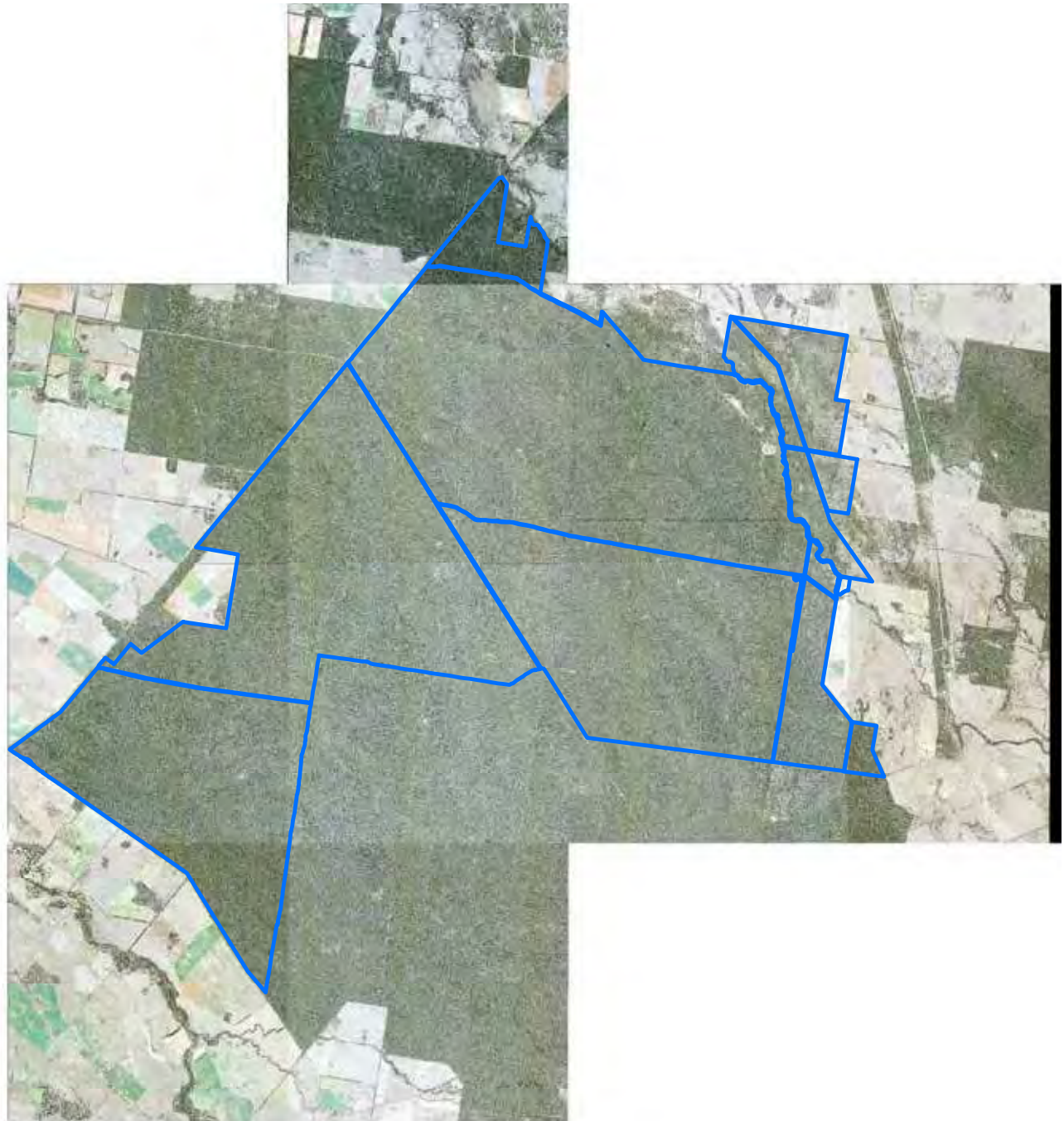
- Pilliga West State Conservation Area
- Other Zone 3 State Conservation Areas

Spatial data courtesy of Office of Environment and Heritage.



Pilliga West State Conservation Area

Aerial



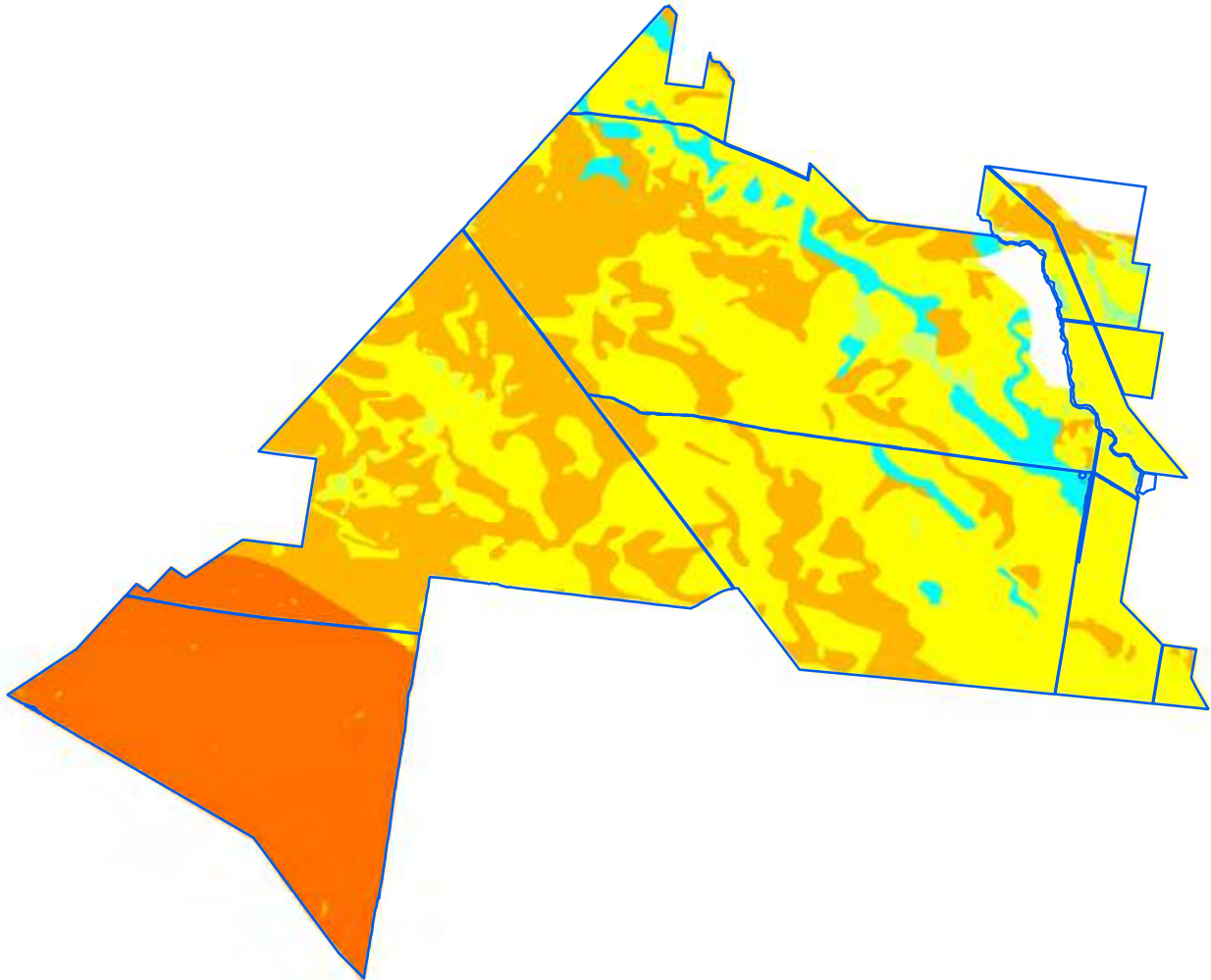
 Pilliga West State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Pilliga West State Conservation Area

Predicted location - white cypress pine

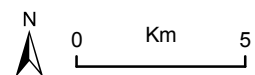


Relative probability (%) of white cypress pine occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- 80 - 90
- 90 - 100

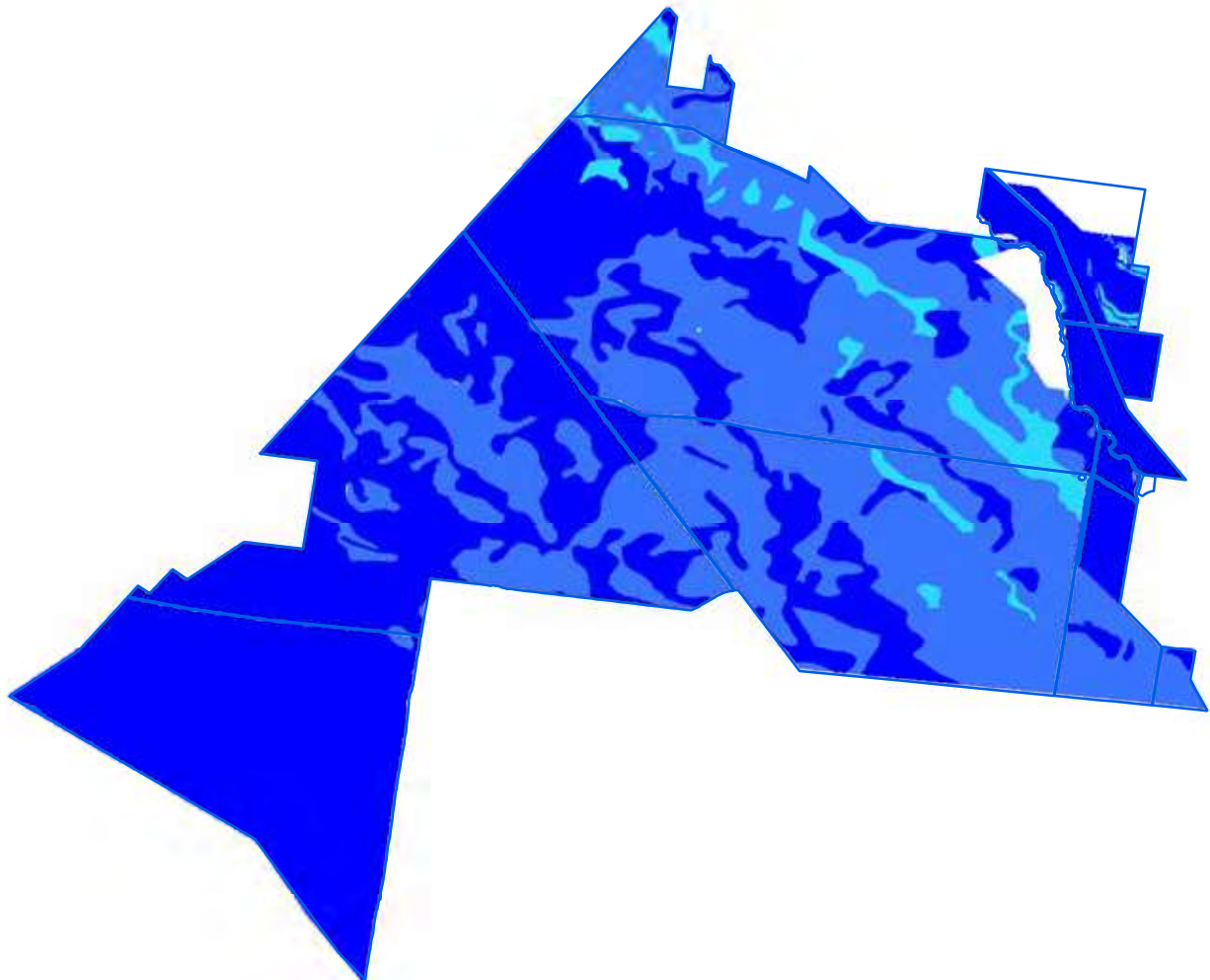
□ Pilliga West State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Pilliga West State Conservation Area

Predicted location - black cypress pine



Relative probability (%) of black cypress pine occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80

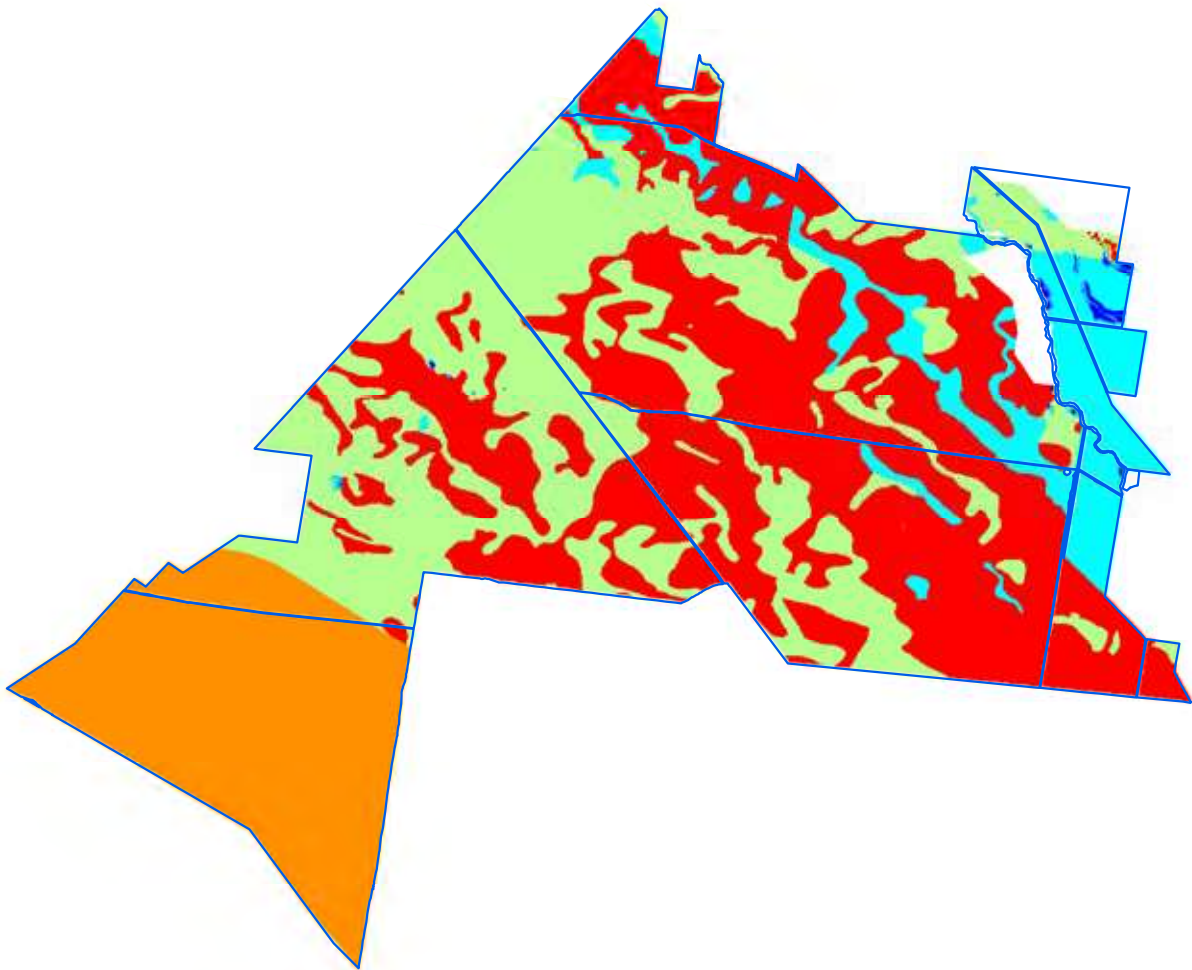
□ Pilliga West State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Pilliga West State Conservation Area

Predicted location - bulloak



Relative probability (%) of bulloak occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70

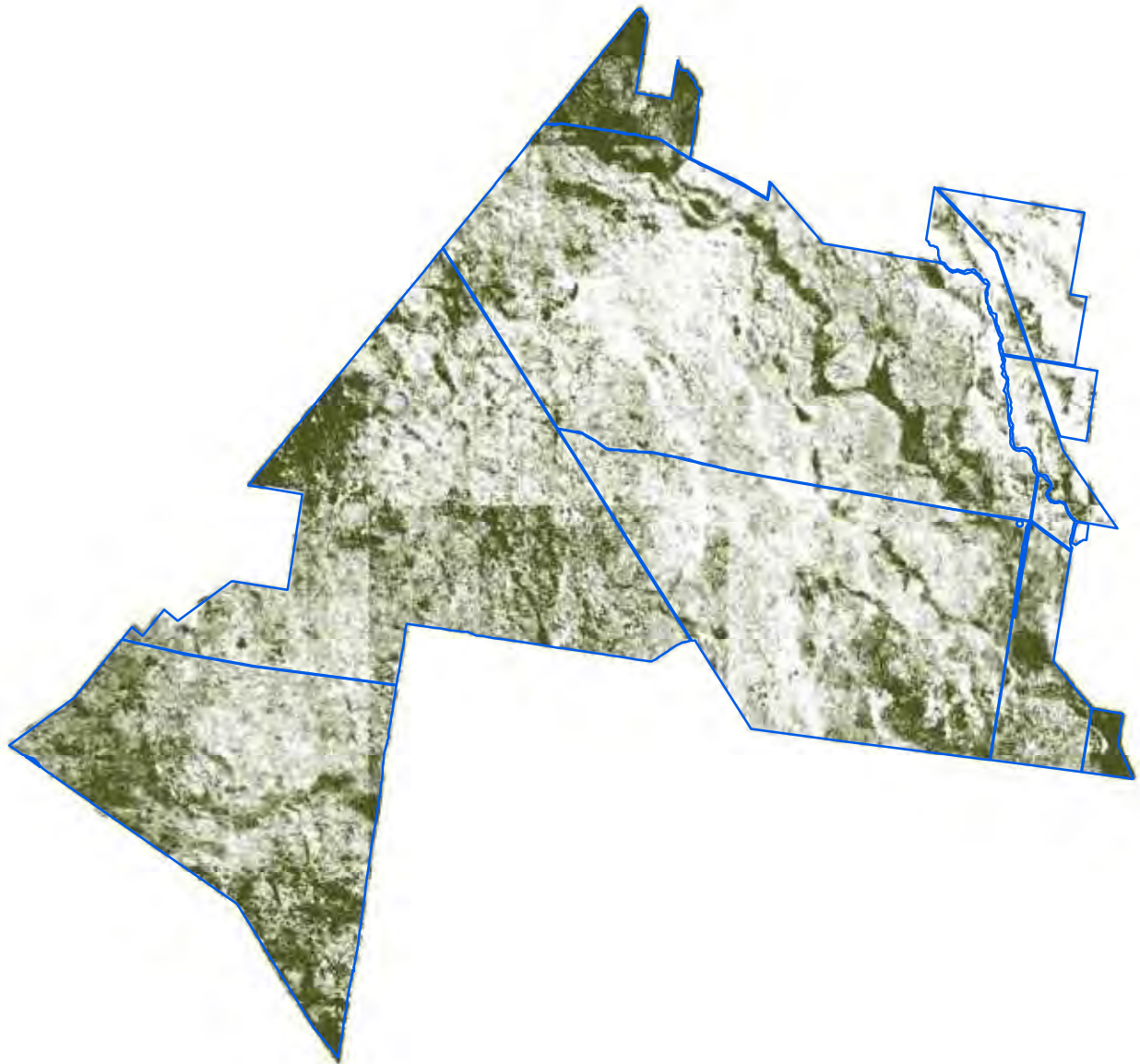
Pilliga West State Conservation Area boundary


Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.




Pilliga West State Conservation Area

Continuous canopy density surface - cypress pine



 More dense canopy
Less dense canopy

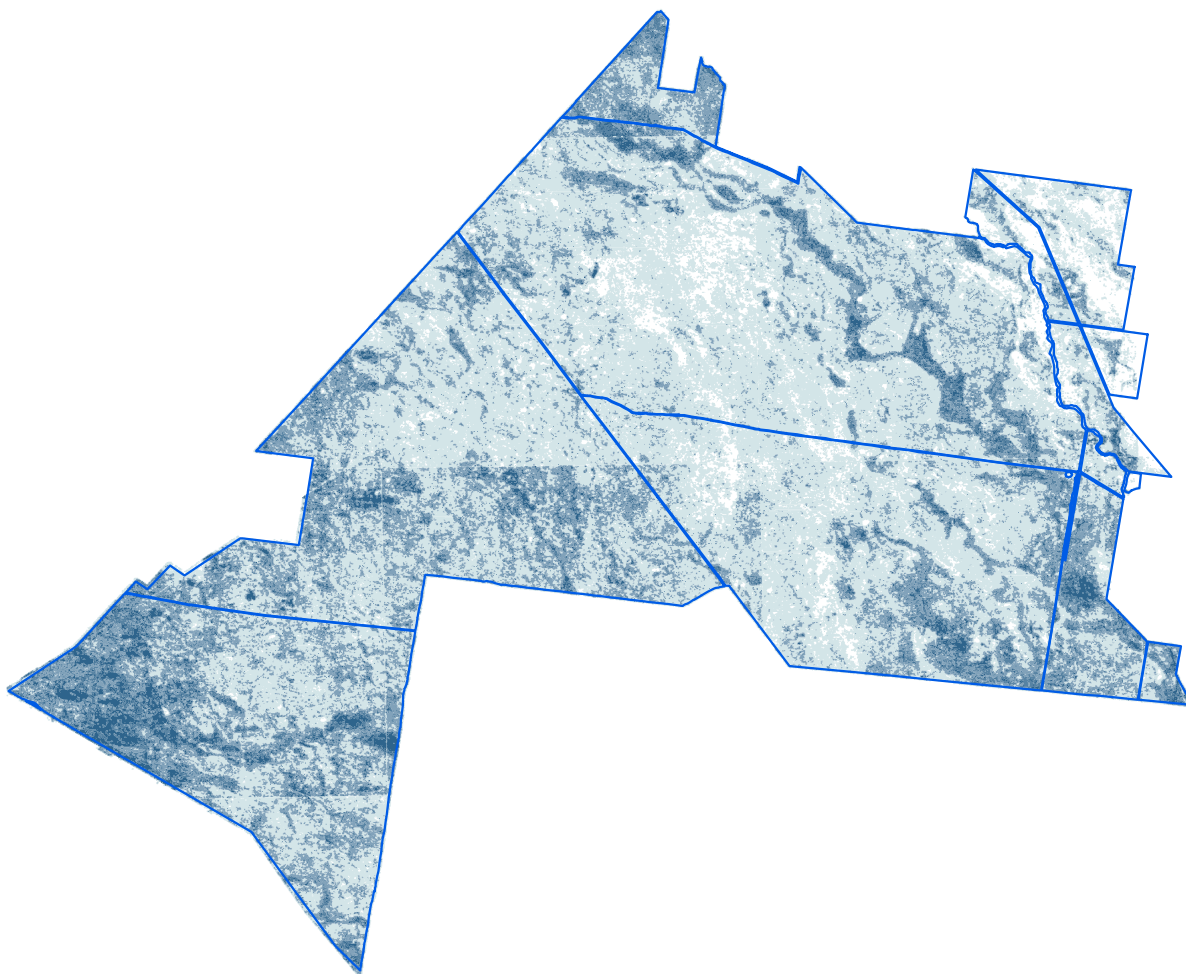
 Pilliga West State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Pilliga West State Conservation Area

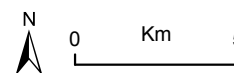
Discrete canopy density classes - cypress pine



Canopy density classes

- Class 0 (little or no cypress pine detected)
- Density slice range 1 to 10
- Density slice range 10 to 20
- Density slice range 20 to 30
- Density slice range 30 to 100
- Pilliga West State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Pilliga West State Conservation Area

Summary statistics - spatial analysis

| Area of cypress canopy classes (excludes areas affected by wildfire since 2009) | |
|---|------------------|
| Class | Total (hectares) |
| Class 0 (little or no cypress detected) | 634 |
| Class 1 (1-10 percent) | 21,336 |
| Class 2 (11-20 percent) | 9,073 |
| Class 3 (21-30 percent) | 3,203 |
| Class 4 (>31 percent) | 1,102 |

| Issues and confidence levels for ADS40 spatial products | | |
|---|--------|-------------------|
| ADS40 image quality | Issues | Confidence levels |
| High | - | Higher |

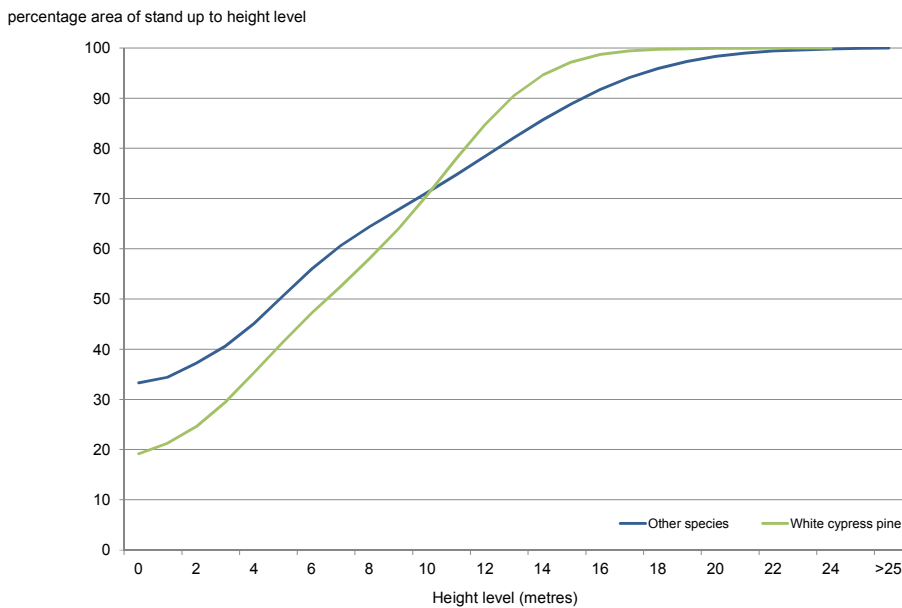
Pilliga West State Conservation Area

Summary statistics - spatial analysis

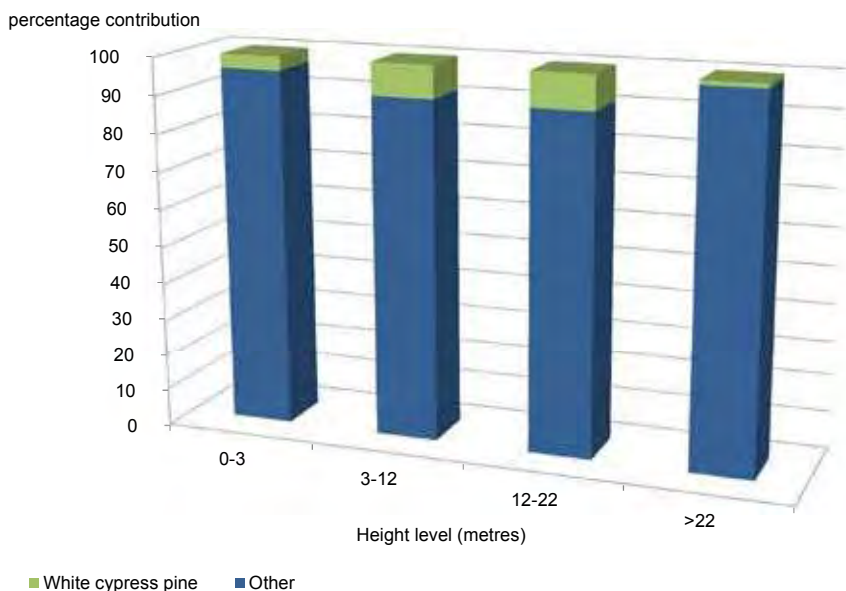
Light detection and ranging (LiDAR) data and analysis

Cumulative height and percentage cover charts show the average cumulative height for white cypress pine and other species, averaged over the State Conservation Area. The figures also show the relative proportion of white cypress pine cover and other species' cover within four height classes, averaged over the State Conservation Area.

Cumulative height chart



Percentage cover chart



Key insights include:

- More even distribution of cypress size classes given linear nature of curve.
- Relatively more area of white cypress pine cover in the 0 - 3 metre height range.
- Uniform white cypress coverage in the 3 - 12 and 12 - 22 metre height range.
- Average white cypress pine cover contribution is 6.7 percent across all height classes.

Pilliga West State Conservation Area

Summary statistics - general

| Lindsay types | Area (hectares) | Proportion of total (%) |
|---|-----------------|-------------------------|
| Red Gum (<i>E. blakelyi</i>) (Blakely's Red Gum) (Lindsay Types) | 12 | <1 |
| Red Gum - Narrowleaf Ironbark - White Cypress Pine (Lindsay Types) | 127 | <1 |
| Belah (Lindsay Types) | 10 | <1 |
| Red Gum - White Cypress Pine | 190 | 1 |
| Narrowleaf Ironbark - Forest Oak - White Cypress Pine (Lindsay Types) | 3,695 | 10 |
| White Cypress Pine - Red Gum | 1,260 | 3 |
| White Cypress Pine - Red Gum - Roughbark Apple (Lindsay Types) | 162 | <1 |
| White Cypress Pine - Red Gum - Narrowleaf Ironbark | 465 | 1 |
| White Cypress Pine - Narrowleaf Ironbark - Red Gum (Lindsay Types) | 1,094 | 3 |
| White Cypress Pine - Narrowleaf Ironbark - Forest Oak (Lindsay Types) | 10,759 | 29 |
| Bimble Box (Lindsay Types) | 17 | <1 |
| Bimble Box - White Cypress Pine (Lindsay Types) | 2,639 | 7 |
| Pilliga Box - White Cypress Pine (Lindsay Types) | 3,339 | 9 |
| Pilliga Box - Bimble Box | 279 | 1 |
| White Cypress Pine - Bimble Box (Lindsay Types) | 6,278 | 17 |
| White Cypress Pine - Pilliga Box (Lindsay Types) | 3,638 | 10 |
| Untyped | 835 | 2 |
| Untyped | 1,703 | 5 |

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|--|--------------------------|-----------------------|
| VCA 55: Belah woodland on alluvial plains and low rises in the central NSW wheatbelt to Pilliga and Liverpool Plains regions | - | - |
| VCA 35: Brigalow - Belah open forest / woodland on alluvial often gilgaied clay from Pilliga Scrub to Goondiwindi, Brigalow Belt South Bioregion | yes | yes |
| VCA 206: Dirty Gum - White Cypress Pine tall woodland of alluvial sand (sand monkeys) in the Darling Riverine Plain and Brigalow Belt South Bioregions | - | - |
| VCA 398: Narrow-leaved Ironbark - White Cypress Pine - Buloke tall open forest on lower slopes and flats in the Pilliga Scrub and surrounding forests in the central north Brigalow Belt South Bioregion | - | - |
| VCA 88: Pilliga Box - White Cypress Pine - Buloke shrubby woodland in the Brigalow Belt South Bioregion | - | - |
| VCA 397: Poplar Box - White Cypress Pine shrub grass tall woodland of the Pilliga - Warialda region, Brigalow Belt South Bioregion | - | - |
| VCA 399: Red gum - Rough-barked Apple +/- tea tree sandy creek woodland (wetland) in the Pilliga - Goonoo sandstone forests, Brigalow Belt South Bioregion | - | - |
| VCA 400: Riparian sedgeland rushland wetland of the Pilliga to Goonoo sandstone forests, Brigalow Belt South Bioregion | - | - |
| VCA 77: Yarran shrubland of the NSW central to northern slopes and plains | nominated | - |

¹ NSW Threatened Species Conservation Act 1995

² Australian Government Environment Protection and Biodiversity Conservation Act 1999

| Native species recorded | Number |
|-------------------------|--------|
| Flora | 324 |
| Fauna | 170 |

Pilliga West State Conservation Area

Summary statistics - general

| Threatened species | | | |
|---|---|--------------------------|-----------------------|
| Scientific name | Common name | NSW TSC Act ¹ | EPBC Act ² |
| Flora | | | |
| - | - | - | - |
| Fauna | | | |
| <i>Hoplocephalus bitorquatus</i> | Pale-headed snake | V | - |
| <i>Botaurus poiciloptilus</i> | Australasian bittern | E1 | E |
| <i>Burhinus grallarius</i> | Bush stone-curlew | E1 | - |
| <i>Calyptorhynchus lathami</i> | Glossy black-cockatoo | V | - |
| <i>Neophema pulchella</i> | Turquoise parrot | V | - |
| <i>Ninox connivens</i> | Barking owl | V | - |
| <i>Tyto novaehollandiae</i> | Masked owl | V | - |
| <i>Climacteris picumnus victoriae</i> | Brown treecreeper (eastern subspecies) | V | - |
| <i>Chthonicola sagittata</i> | Speckled warbler | V | - |
| <i>Pomatostomus temporalis temporalis</i> | Grey-crowned babbler (eastern subspecies) | V | - |
| <i>Daphoenositta chrysoptera</i> | Varied sittella | V | - |
| <i>Phascolarctos cinereus</i> | Koala | V | V |
| <i>Petaurus norfolcensis</i> | Squirrel glider | V | - |
| <i>Chalinolobus picatus</i> | Little pied bat | V | - |
| <i>Nyctophilus corbeni</i> | Corben's long-eared bat | V | V |

| Cultural heritage - Aboriginal and non-Aboriginal | Number of sites |
|---|-----------------|
| AHIMS registered sites | 19 |
| Heritage items or places of historic significance | 9 |

| Current management plans | Status |
|-----------------------------------|--------------------------------|
| Plan of management | no |
| Fire management strategy | June 2009 |
| Regional pest management strategy | Northern plains region 2012-17 |

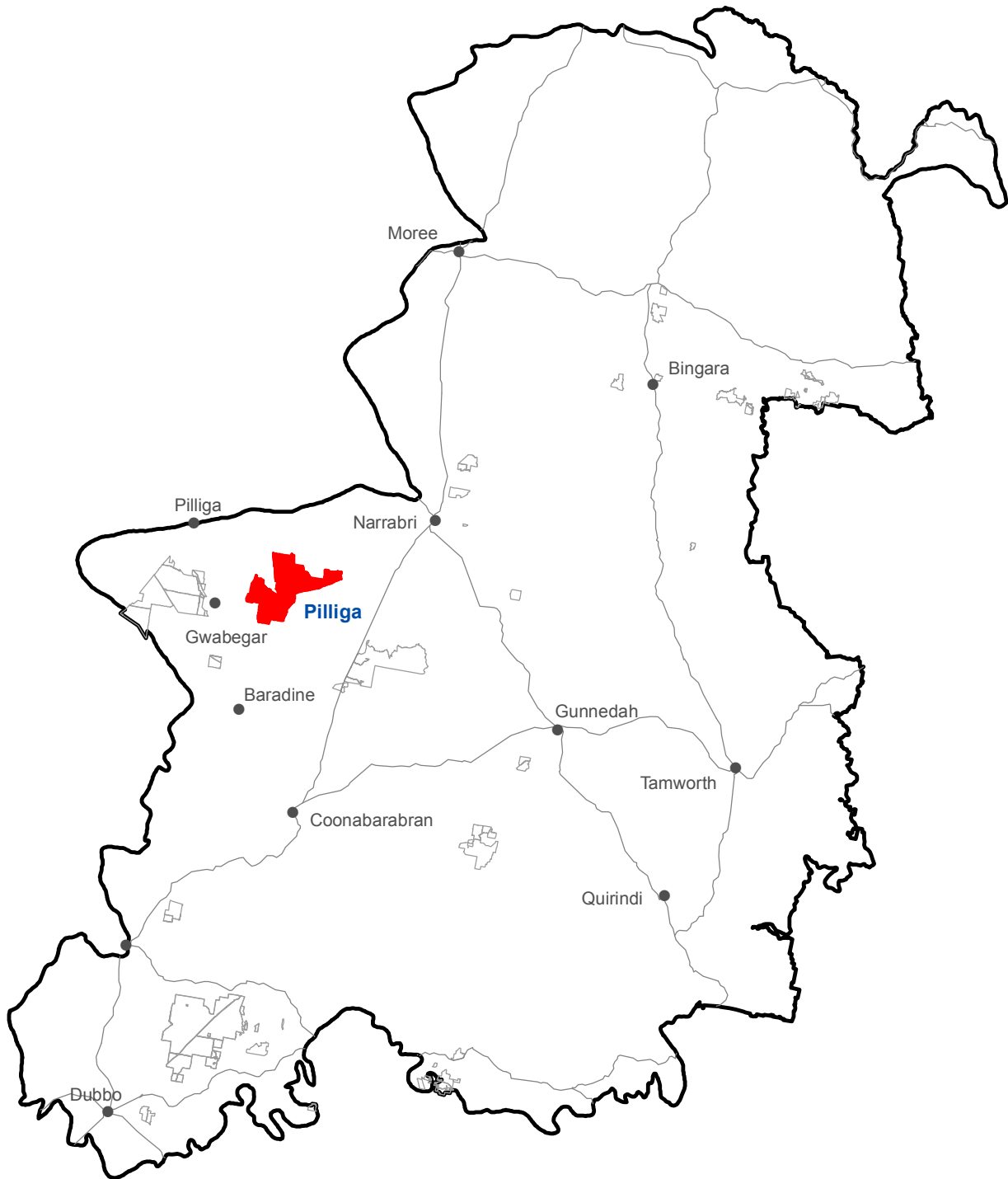
| Fire history | Prescribed burn (hectares) | Wildfire (hectares) |
|--------------|----------------------------|---------------------|
| 2011-12 | 160 | - |



| Mining | Number of titles |
|-------------|------------------|
| Exploration | 2 petroleum |
| Application | 1 petroleum |

| Apiarist sites |
|----------------|
| None |

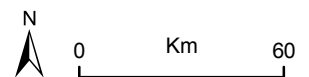
Pilliga State Conservation Area (33,386 hectares)

Location



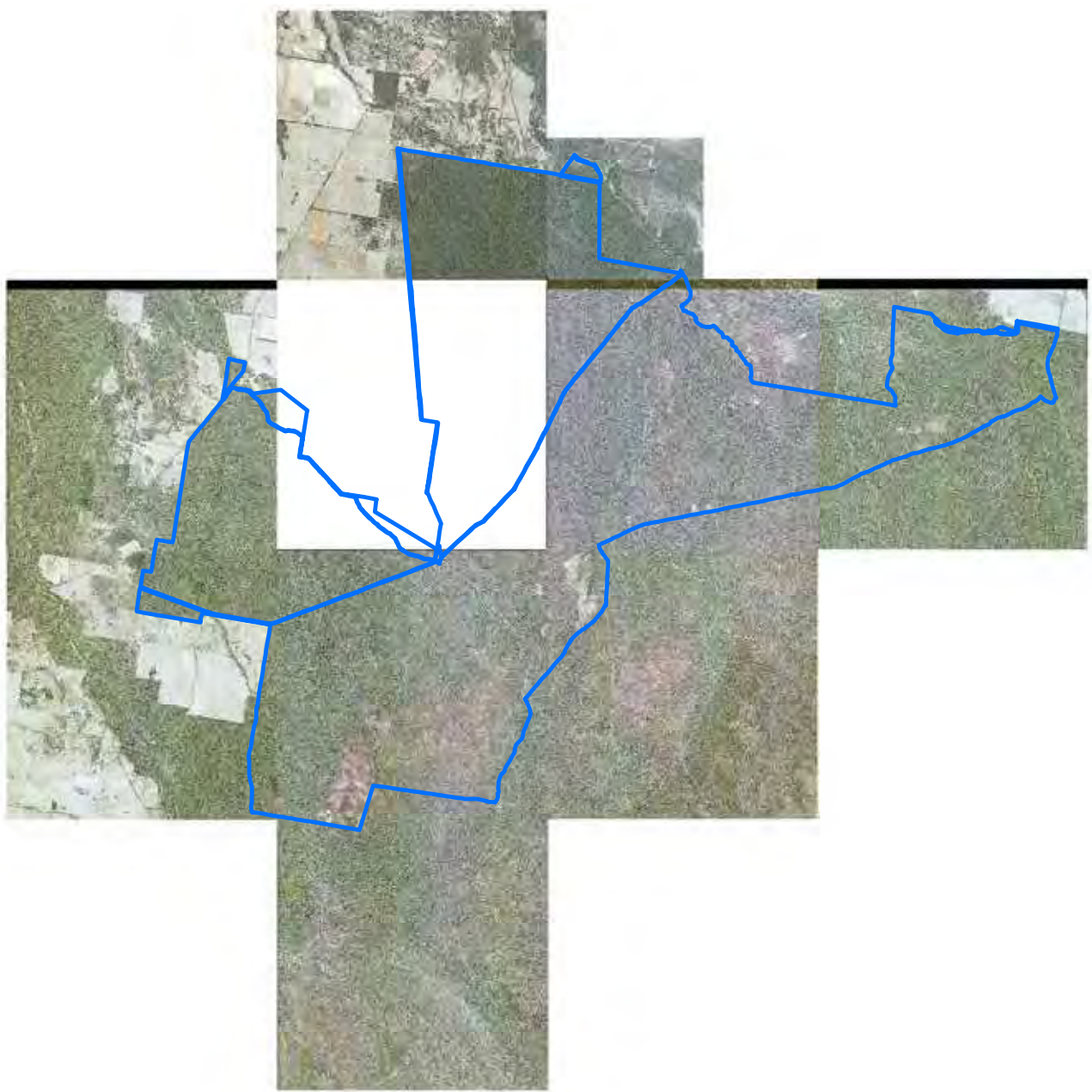
-  Pilliga State Conservation Area
-  Other Zone 3 State Conservation Areas


Spatial data courtesy of Office of Environment and Heritage.



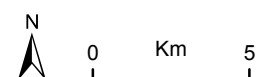
Pilliga State Conservation Area

Aerial



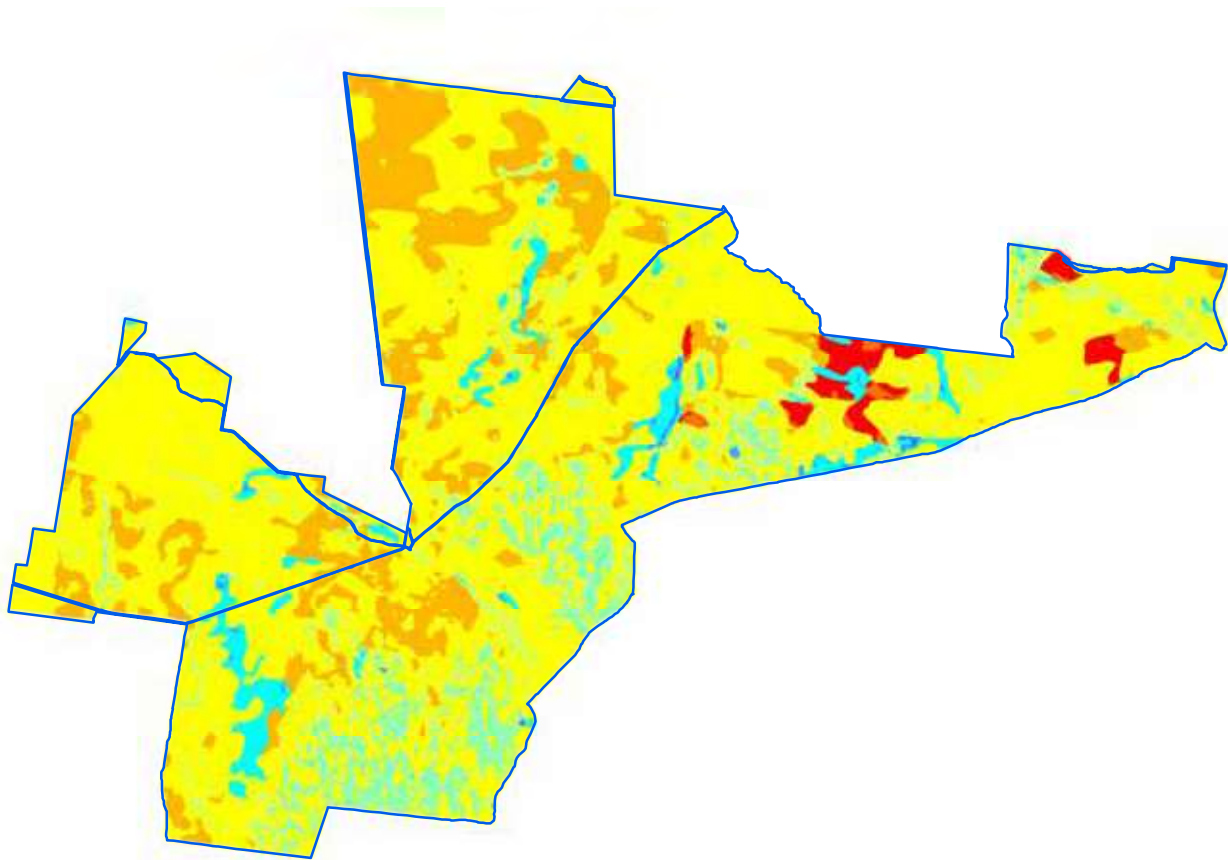
 Pilliga State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Pilliga State Conservation Area

Predicted location - white cypress pine

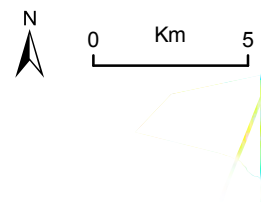


Relative probability (%) of white cypress pine occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- 80 - 90
- 90 - 100

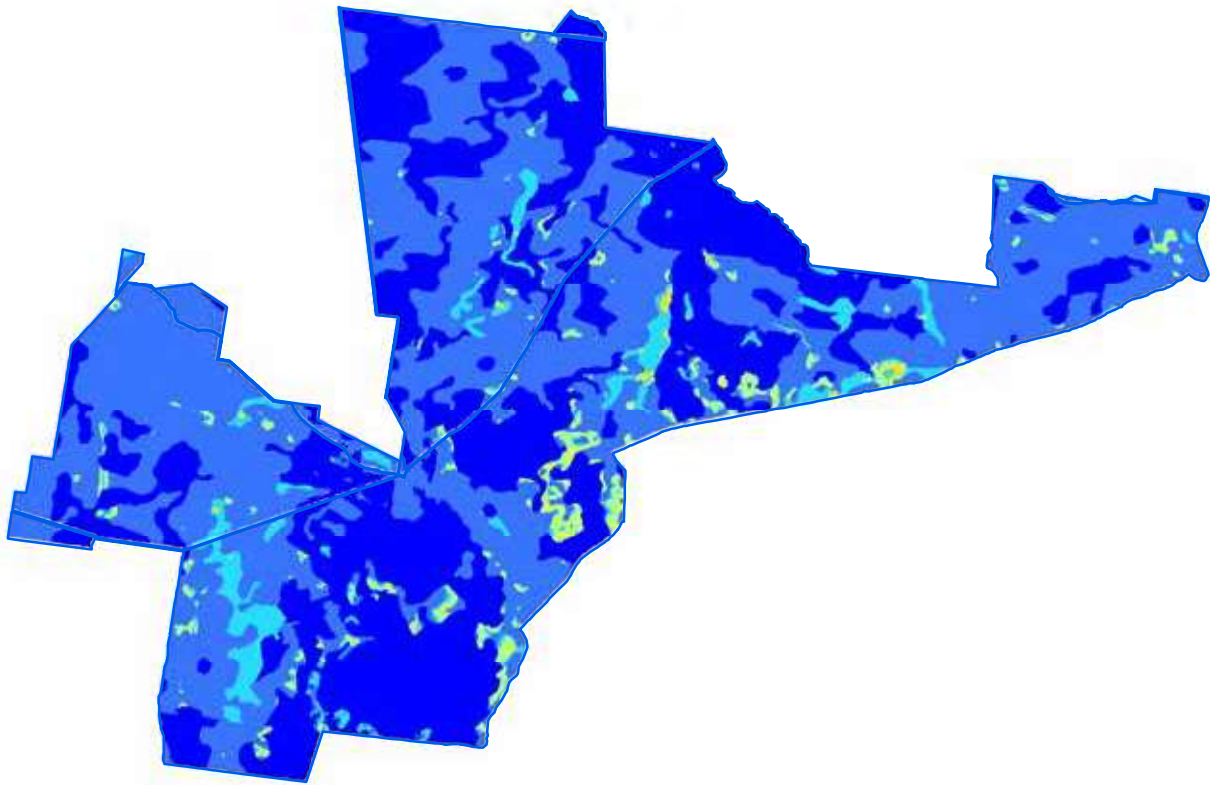
□ Pilliga State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Pilliga State Conservation Area

Predicted location - black cypress pine

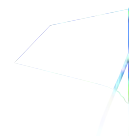
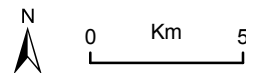


Relative probability (%) of black cypress pine occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80

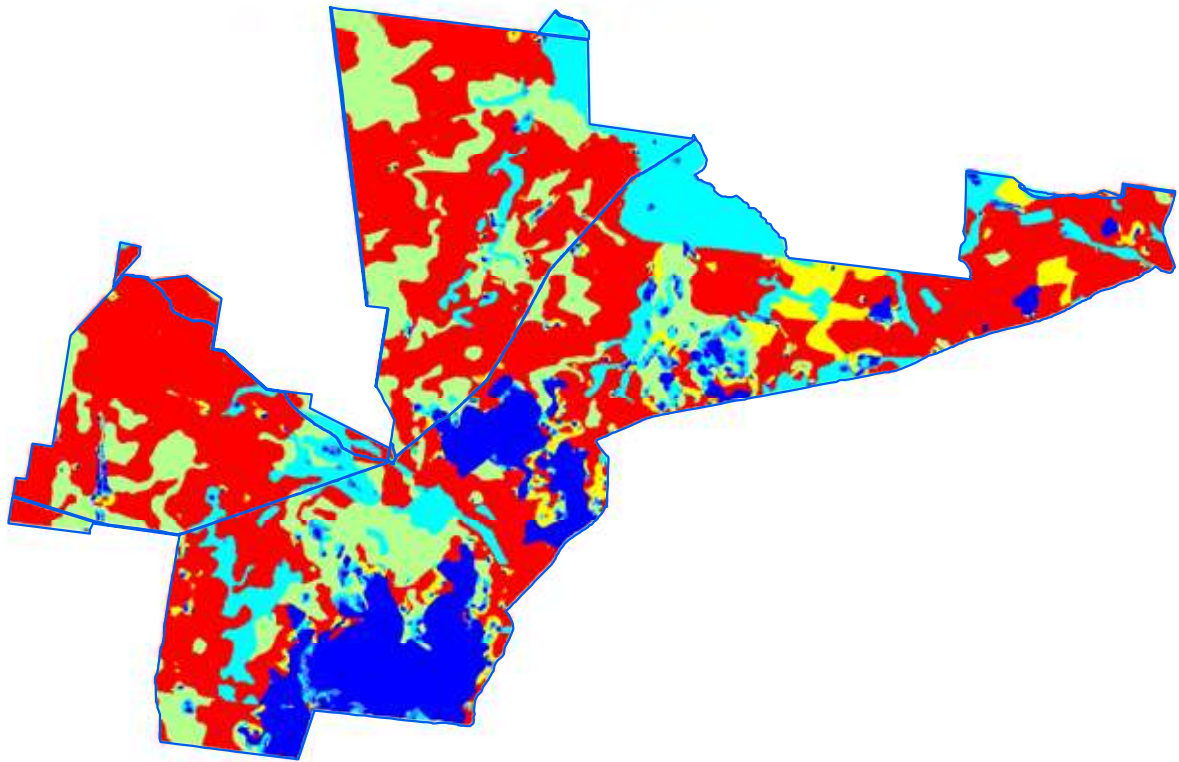
□ Pilliga State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.

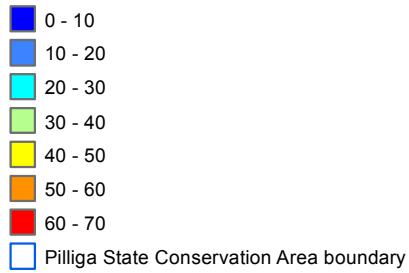


Pilliga State Conservation Area

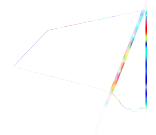
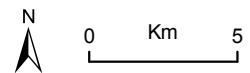
Predicted location - bulloak



Relative probability (%) of bulloak occurrence

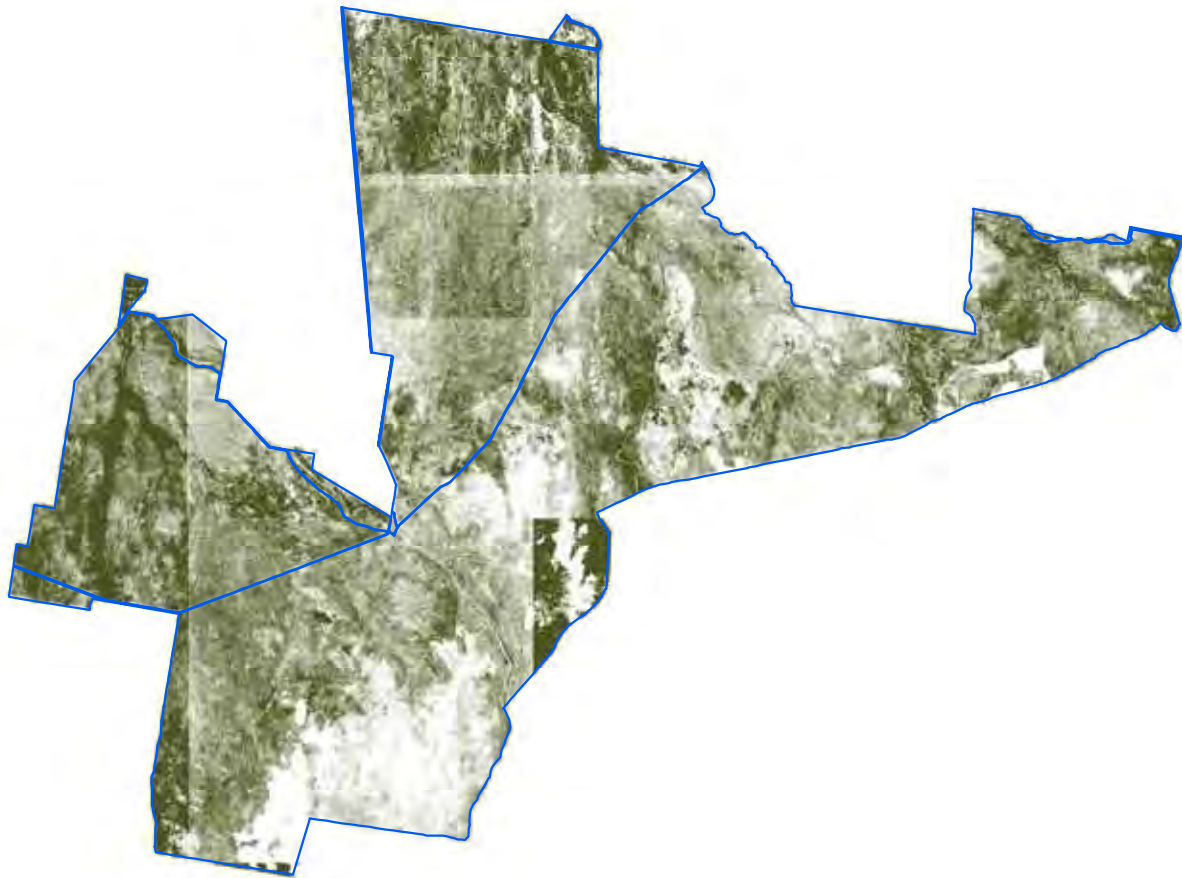


Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Pilliga State Conservation Area

Continuous canopy density surface - cypress pine



More dense canopy
Less dense canopy

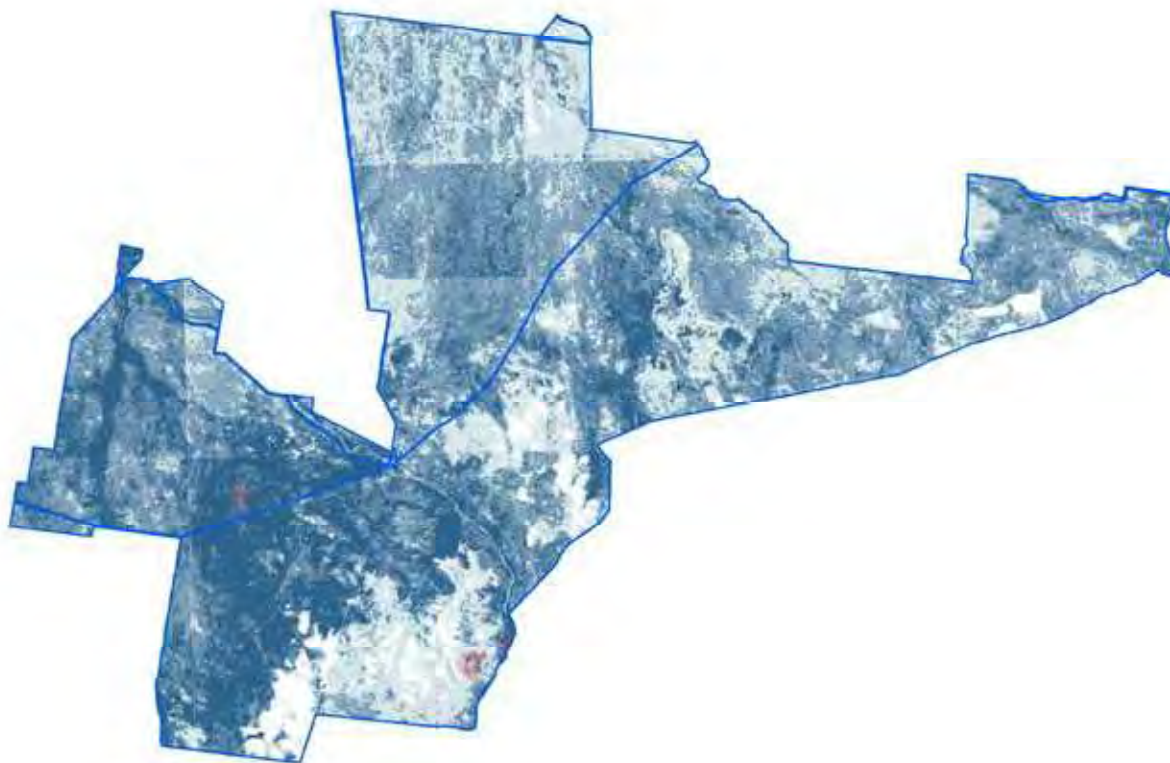
Pilliga State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Pilliga State Conservation Area

Discrete canopy density classes - cypress pine

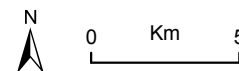


Wildfire since 2004-05

Canopy density classes

- Class 0 (little or no cypress pine detected)
- Density slice range 1 to 10
- Density slice range 10 to 20
- Density slice range 20 to 30
- Density slice range 30 to 100
- Pilliga State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Pilliga State Conservation Area

Summary statistics - spatial analysis

| Area of cypress canopy classes (excludes areas affected by wildfire since 2009) | |
|---|------------------|
| Class | Total (hectares) |
| Class 0 (little or no cypress detected) | 1,527 |
| Class 1 (1-10 percent) | 8,612 |
| Class 2 (11-20 percent) | 11,703 |
| Class 3 (21-30 percent) | 7,278 |
| Class 4 (>31 percent) | 5,106 |

| Issues and confidence levels for ADS40 spatial products | | |
|---|--|-------------------|
| ADS40 image quality | Issues | Confidence levels |
| High | Image classification and mapping includes other species in north eastern section | Higher |

Pilliga State Conservation Area

Summary statistics - general

| Lindsay types | Area (hectares) | Proportion of total (%) |
|---|-----------------|-------------------------|
| Red Gum - Roughbark Apple - White Cypress Pine (Lindsay Types) | 210 | 1 |
| Red Gum - Narrowleaf Ironbark - White Cypress Pine (Lindsay Types) | 54 | <1 |
| Belah (Lindsay Types) | 73 | <1 |
| Red Gum - White Cypress Pine | 509 | 2 |
| Broom (Heath) | 3,381 | 10 |
| Brigalow (Lindsay Types) | 29 | <1 |
| Narrowleaf Ironbark (Lindsay Types) | 149 | <1 |
| Narrowleaf Ironbark - Forest Oak - White Cypress Pine (Lindsay Types) | 5,150 | 16 |
| Narrowleaf Ironbark - Forest Oak - Cypress Pine - (Mugga Ironbark) | 144 | <1 |
| Narrowleaf Ironbark - Bloodwood | 2 | <1 |
| Mallee (Lindsay Types) | 19 | <1 |
| Silverleaf Ironbark (Lindsay Types) | 37 | <1 |
| Broadleaf Ironbark (Lindsay Types) | 1 | <1 |
| White Cypress Pine - Red Gum | 1,282 | 4 |
| White Cypress Pine - Red Gum - Roughbark Apple (Lindsay Types) | 914 | 3 |
| White Cypress Pine - Narrowleaf Ironbark - Red Gum (Lindsay Types) | 839 | 3 |
| White Cypress Pine - Narrowleaf Ironbark - Forest Oak (Lindsay Types) | 9,872 | 30 |
| Cypress Pine - Narrowleaf Ironbark - Forest Oak - (Mugga Ironbark) | 19 | <1 |
| Cypress Pine - Narrowleaf Ironbark - Bloodwood - Red Gum (<i>blakeyi</i>) | 126 | <1 |
| Bimble Box (Lindsay Types) | 12 | <1 |
| Bimble Box - White Cypress Pine (Lindsay Types) | 158 | <1 |
| Pilliga Box (Lindsay Types) | 60 | <1 |
| Pilliga Box - White Cypress Pine (Lindsay Types) | 2,790 | 8 |
| White Cypress Pine - Silverleaf Ironbark (Lindsay Types) | 520 | 2 |
| White Cypress Pine - Bimble Box (Lindsay Types) | 886 | 3 |
| White Cypress Pine - Pilliga Box (Lindsay Types) | 2,694 | 8 |
| White Cypress Pine - Mugga Ironbark - Forest Oak | 145 | <1 |
| Pine - Mugga Ironbark - Forest Oak (Pilliga Box) | 183 | 1 |
| White Cypress Pine - Forest Oak | 682 | 2 |
| White Cypress Pine - Bloodwood - Red Gum (Lindsay Types) | 1 | <1 |
| Scrub | 4 | <1 |
| Mugga Ironbark - Forest Oak - Cypress Pine | 385 | 1 |
| Mugga Ironbark - Pine | 206 | 1 |
| Forest Oak - White Cypress Pine + (Narrowleaf Ironbark - Forest Oak - White Cypress Pine) | 11 | <1 |
| Bloodwood - Red Gum - Narrowleaf Ironbark - White Cypress Pine (Lindsay Types) | 17 | <1 |
| Bloodwood - Red Gum (<i>blakeyi</i>) - Cypress Pine | 68 | <1 |
| Bloodwood - Red Gum - White Cypress Pine | 8 | <1 |
| Bloodwood - Narrowleaf Ironbark - Pine | 21 | <1 |
| Untyped | 1,506 | 5 |

Pilliga State Conservation Area

Summary statistics - general

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|--|--------------------------|-----------------------|
| VCA 55: Belah woodland on alluvial plains and low rises in the central NSW wheatbelt to Pilliga and Liverpool Plains regions | - | - |
| VCA 35: Brigalow - Belah open forest / woodland on alluvial often gilgaied clay from Pilliga Scrub to Goondiwindi, Brigalow Belt South Bioregion | yes | yes |
| VCA 141: Broombush - wattle very tall shrubland of the Pilliga to Goonoo regions, Brigalow Belt South Bioregion | - | - |
| VCA 411: Buloke - White Cypress Pine woodland on outwash plains in the Pilliga Scrub and Narrabri regions, Brigalow Belt South bioregion | - | - |
| VCA 409: Dirty (Baradine) Gum - White Bloodwood - White Cypress Pine - Motherumbah shrubby woodland on sandy soils in the Pilliga Scrub and surrounding region, Brigalow Belt South Bioregion | - | - |
| VCA 415: Fringe Myrtle shrubland of the Pilliga Scrub | - | - |
| VCA 256: Green Mallee tall mallee woodland on rises in the Pilliga - Goonoo regions, southern Brigalow Belt South Bioeregion | - | - |
| VCA 402: Mugga Ironbark - White Cypress Pine - gum tall woodland on flats in the Pilliga forests and surrounding regions, Brigalow Belt South Bioregion | - | - |
| VCA 398: Narrow-leaved Ironbark - White Cypress Pine - Buloke tall open forest on lower slopes and flats in the Pilliga Scrub and surrounding forests in the central north Brigalow Belt South Bioregion | - | - |
| VCA 416: Pilliga "tank gilgai" wetland sedgeland rushland, Brigalow Belt South Bioregion | - | - |
| VCA 88: Pilliga Box - White Cypress Pine - Buloke shrubby woodland in the Brigalow Belt South Bioregion | - | - |
| VCA 397: Poplar Box - White Cypress Pine shrub grass tall woodland of the Pilliga - Warialda region, Brigalow Belt South Bioregion | - | - |
| VCA 399: Red gum - Rough-barked Apple +/- tea tree sandy creek woodland (wetland) in the Pilliga - Goonoo sandstone forests, Brigalow Belt South Bioregion | - | - |
| VCA 404: Red Ironbark - White Bloodwood -/+ Burrows Wattle heathy woodland on sandy soil in the Pilliga forests | - | - |
| VCA 400: Riparian sedgeland rushland wetland of the Pilliga to Goonoo sandstone forests, Brigalow Belt South Bioregion | - | - |
| VCA 401: Rough-barked Apple - red gum - cypress pine woodland on sandy flats, mainly in the Pilliga Scrub region | - | - |
| VCA 413: Silver-leaved Ironbark - White Cypress Pine - box dry shrub grass woodland of the Pilliga Scrub - Warialda region, Brigalow Belt South Bioregion | - | - |
| VCA 410: Swamp Paper-bark very tall shrubland wetland on sodic soils in the Pilliga Scrub region | - | - |
| VCA 405: White Bloodwood - Red Ironbark - cypress pine shrubby sandstone woodland of the Pilliga Scrub and surrounding regions | - | - |

¹ NSW *Threatened Species Conservation Act 1995*

² Australian Government *Environment Protection and Biodiversity Conservation Act 1999*

| Native species recorded | Number |
|-------------------------|--------|
| Flora | 507 |
| Fauna | 112 |

Pilliga State Conservation Area

Summary statistics - general

| Threatened species | | | |
|---|---|--------------------------|-----------------------|
| Scientific name | Common name | NSW TSC Act ¹ | EPBC Act ² |
| Flora | | | |
| <i>Cyperus conicus</i> | - | E1 | - |
| <i>Diuris tricolor</i> | Pine donkey orchid | V | - |
| <i>Rulingia procumbens</i> | - | V | V |
| <i>Philotheca ericifolia</i> | - | - | V |
| Fauna | | | |
| <i>Crinia sloanei</i> | Sloane's froglet | V | - |
| <i>Leipoa ocellata</i> | Malleefowl | E1 | V |
| <i>Calyptorhynchus lathami</i> | Glossy black-cockatoo | V | - |
| <i>Ninox connivens</i> | Barking owl | V | - |
| <i>Climacteris picumnus victoriae</i> | Brown treecreeper (eastern subspecies) | V | - |
| <i>Chthonicola sagittata</i> | Speckled warbler | V | - |
| <i>Pomatostomus temporalis temporalis</i> | Grey-crowned babbler (eastern subspecies) | V | - |
| <i>Phascolarctos cinereus</i> | Koala | V | V |
| <i>Aepyprymnus rufescens</i> | Rufous bettong | V | - |
| <i>Saccolaimus flaviventris</i> | Yellow-bellied sheath-tail-bat | V | - |
| <i>Chalinolobus picatus</i> | Little pied bat | V | - |
| <i>Vespadelus troughtoni</i> | Eastern cave bat | V | - |
| <i>Pseudomys pilligaensis</i> | Pilliga mouse | V | V |

| Cultural heritage - Aboriginal and non-Aboriginal | Number of sites |
|---|-----------------|
| AHIMS registered sites | 18 |
| Heritage items or places of historic significance | 0 |

| Current management plans | Status |
|-----------------------------------|--------------------------------|
| Plan of management | no |
| Fire management strategy | June 2009 |
| Regional pest management strategy | Northern plains region 2012-17 |

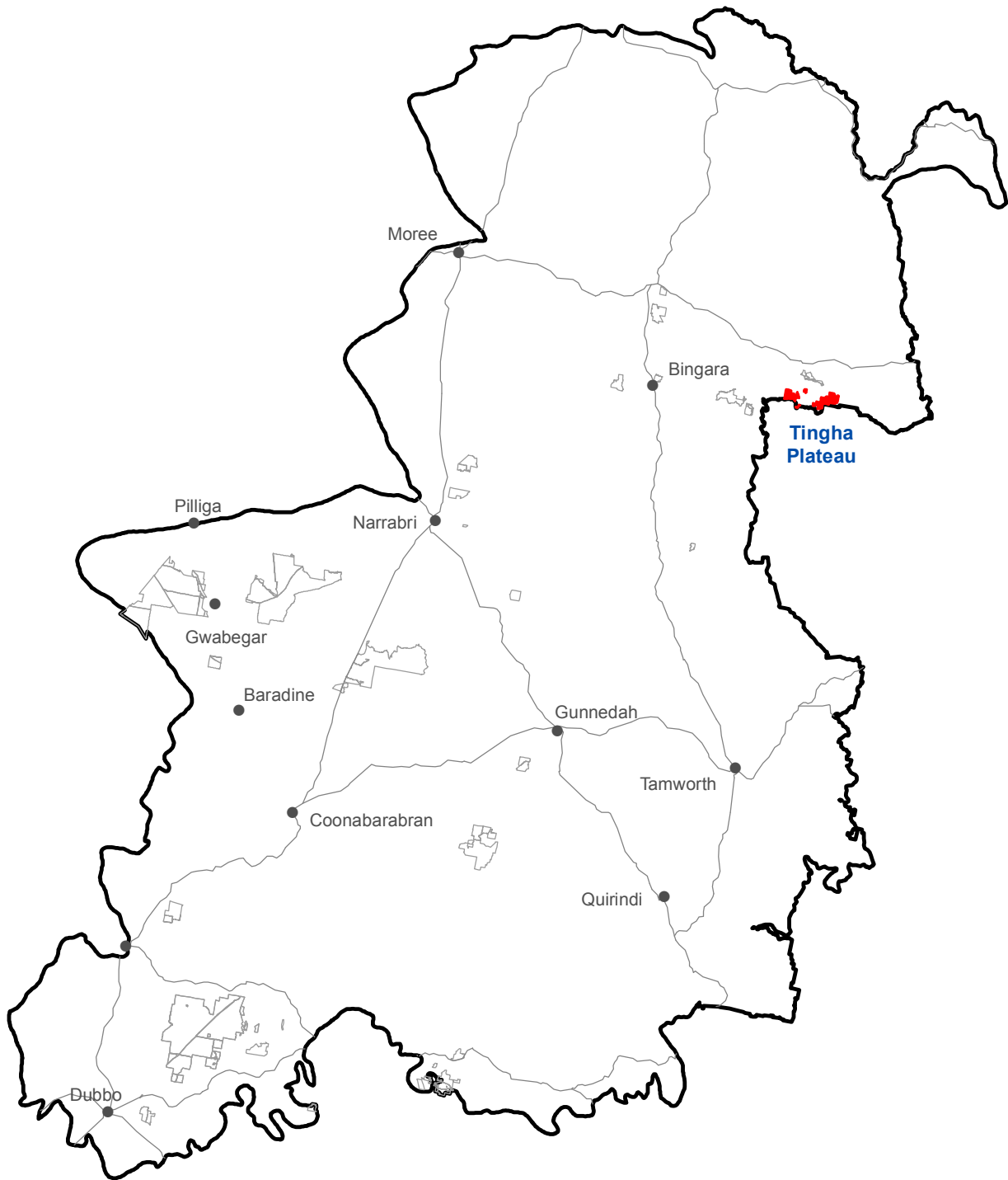
| Fire history | Prescribed burn (hectares) | Wildfire (hectares) |
|--------------|----------------------------|---------------------|
| 2006-07 | - | 75 |
| 2008-09 | - | 20 |
| 2010-11 | 174 | - |
| 2011-12 | 227 | - |

| Mining | Number of titles |
|-------------|------------------|
| Exploration | 1 petroleum |
| Application | none |

| Apiarist sites |
|----------------|
| 109 |

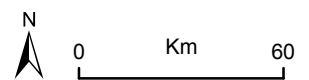
Tingha Plateau State Conservation Area (3,414 hectares)

Location



- Tingha Plateau State Conservation Area
- Other Zone 3 State Conservation Areas

Spatial data courtesy of Office of Environment and Heritage.



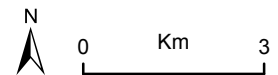
Tingha Plateau State Conservation Area

Aerial



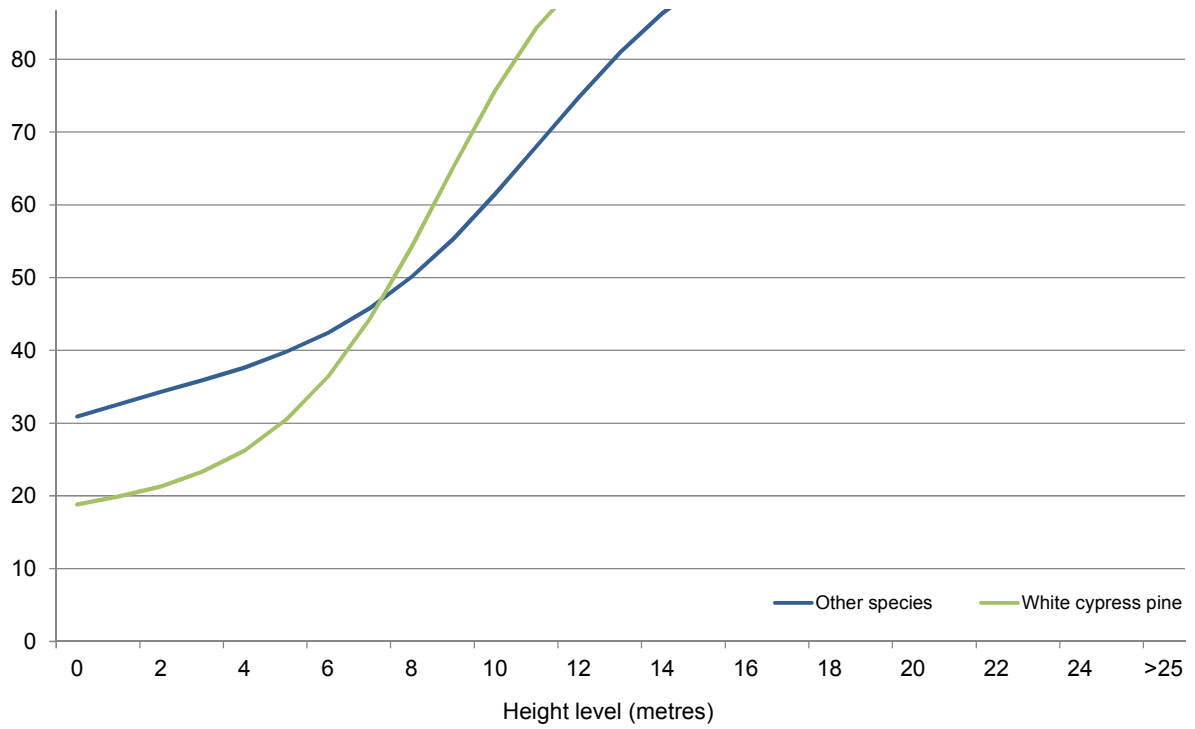
 Tingha Plateau State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Tingha Plateau State Conservation Area

Predicted location - white cypress pine



Tingha Plateau State Conservation Area

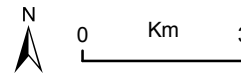
Predicted location - black cypress pine



Relative probability (%) of black cypress pine occurrence

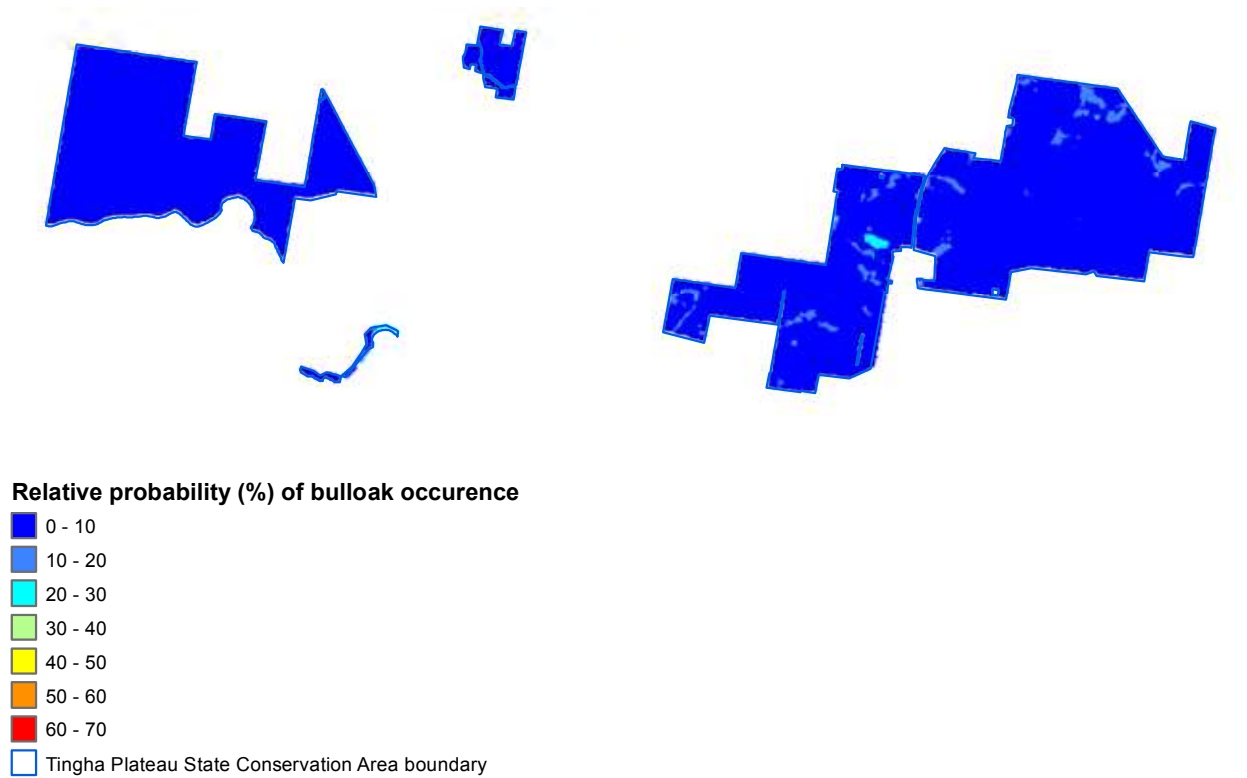


Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.

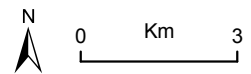


Tingha Plateau State Conservation Area

Predicted location - bulloak

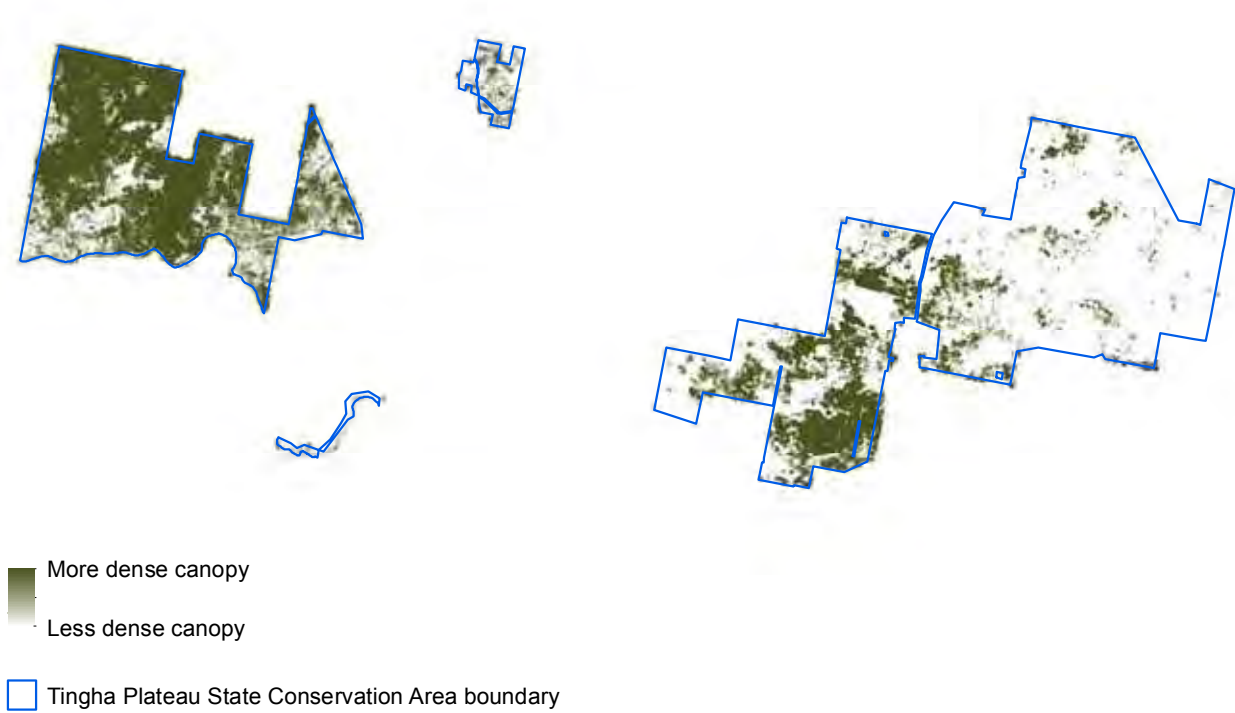


Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.

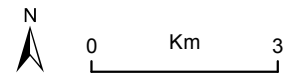


Tingha Plateau State Conservation Area

Continuous canopy density surface - cypress pine

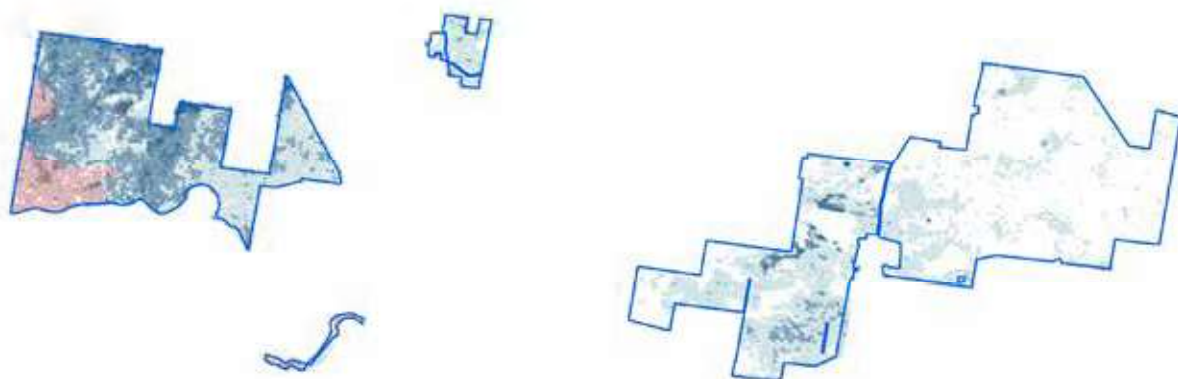


ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Tingha Plateau State Conservation Area

Discrete canopy density classes - cypress pine

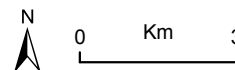


Wildfire since 2004-05

Canopy density classes

- Class 0 (little or no cypress pine detected)
- Density slice range 1 to 10
- Density slice range 10 to 20
- Density slice range 20 to 30
- Density slice range 30 to 100
- Tingha Plateau State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Tingha Plateau State Conservation Area

Summary statistics - spatial analysis

| Area of cypress canopy classes (excludes areas affected by wildfire since 2009) | |
|---|------------------|
| Class | Total (hectares) |
| Class 0 (little or no cypress detected) | 1,447 |
| Class 1 (1-10 percent) | 1,343 |
| Class 2 (11-20 percent) | 519 |
| Class 3 (21-30 percent) | 132 |
| Class 4 (>31 percent) | 21 |

| Issues and confidence levels for ADS40 spatial products | | |
|---|--------|-------------------|
| ADS40 image quality | Issues | Confidence levels |
| High | - | Higher |

Tingha Plateau State Conservation Area

Summary statistics - general

| Lindsay types | Area (hectares) | Proportion of total (%) |
|---|-----------------|-------------------------|
| (Softwood Plantation) <i>Pinus radiata</i> | 93 | 3 |
| Tailing Dam (Dam used for mining purposes.) | 4 | <1 |
| Untyped | 3,314 | 97 |

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|---|--------------------------|-----------------------|
| VCA 504: Black Cypress Pine - Rough-barked Apple - stringybark shrubby open forest of the Nandewar and western New England Tablelands Bioregions | - | - |
| VCA 519: Heathy shrubland on granitic substrates in the Howell area in the New England Tablelands Bioregion | yes | - |
| VCA 511: Queensland Bluegrass - Redleg Grass - Rats Tail Grass - spear grass - panic grass derived grassland of the Nandewar and Brigalow Belt South Bioregions | - | - |
| VCA 538: Rough-barked Apple - Blakely's Red Gum open forest of the Nandewar and western New England Tablelands Bioregions | yes | yes |
| VCA 544: Rough-barked Apple +/- cypress pine +/- Blakely's Red Gum riparian open forest / woodland of the Nandewar and New England Tableland Bioregions | yes | yes |
| VCA 578: Tumbledown Red Gum - Black Cypress Pine - Caley's Ironbark shrubby open forest of the Nandewar and western New England Tablelands Bioregions | - | - |
| VCA 564: White Cypress Pine - Silver-leaved Ironbark - Caley's Ironbark open forest of the central Nandewar and western New England Tablelands Bioregions | - | - |

¹ NSW *Threatened Species Conservation Act 1995*

² Australian Government *Environment Protection and Biodiversity Conservation Act 1999*

| Native species recorded | | Number | |
|---------------------------------------|---|--------------------------|-----------------------|
| Flora | | 397 | |
| Fauna | | 153 | |
| Threatened species | | NSW TSC Act ¹ | EPBC Act ² |
| Scientific name | Common name | | |
| Flora | | | |
| <i>Eucalyptus mckieana</i> | McKie's stringybark | V | V |
| <i>Homoranthus prolixus</i> | Granite homoranthus | V | V |
| <i>Callistemon pungens</i> | - | - | V |
| Fauna | | | |
| <i>Hieraaetus morphnoides</i> | Little eagle | V | - |
| <i>Lophoictinia isura</i> | Square-tailed kite | V | - |
| <i>Glossopsitta pusilla</i> | Little lorikeet | V | - |
| <i>Neophema pulchella</i> | Turquoise parrot | V | - |
| <i>Ninox connivens</i> | Barking owl | V | - |
| <i>Climacteris picumnus victoriae</i> | Brown treecreeper (eastern subspecies) | V | - |
| <i>Meliphreptus gularis gularis</i> | Black-chinned honeyeater (eastern subspecies) | V | - |
| <i>Daphoenositta chrysoptera</i> | Varied sittella | V | - |
| <i>Stagonopleura guttata</i> | Diamond firetail | V | - |
| <i>Phascolarctos cinereus</i> | Koala | V | V |
| <i>Petaurus norfolcensis</i> | Squirrel glider | V | - |
| <i>Nyctophilus corbeni</i> | Corben's long-eared bat | V | V |

Tingha Plateau State Conservation Area

Summary statistics - general

| Cultural heritage - Aboriginal and non-Aboriginal | Number of sites |
|---|--------------------------|
| AHIMS registered sites | 0 |
| Heritage items or places of historic significance | No information available |

| Current management plans | Status |
|-----------------------------------|------------------------------------|
| Plan of management | no |
| Fire management strategy | August 2008 |
| Regional pest management strategy | Northern tablelands region 2012-17 |

| Fire history | Prescribed burn (hectares) | Wildfire (hectares) |
|--------------|----------------------------|---------------------|
| 2006-07 | - | 169 |
| 2009-10 | - | 22 |
| 2011-12 | 6 | - |
| 2012-13 | 157 | - |



| Mining | Number of titles |
|-------------|------------------|
| Exploration | 7 mineral |
| Application | none |

| Apiarist sites |
|----------------|
| 1 |

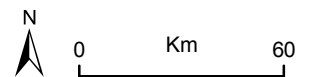
Trinke State Conservation Area (10,229 hectares)

Location



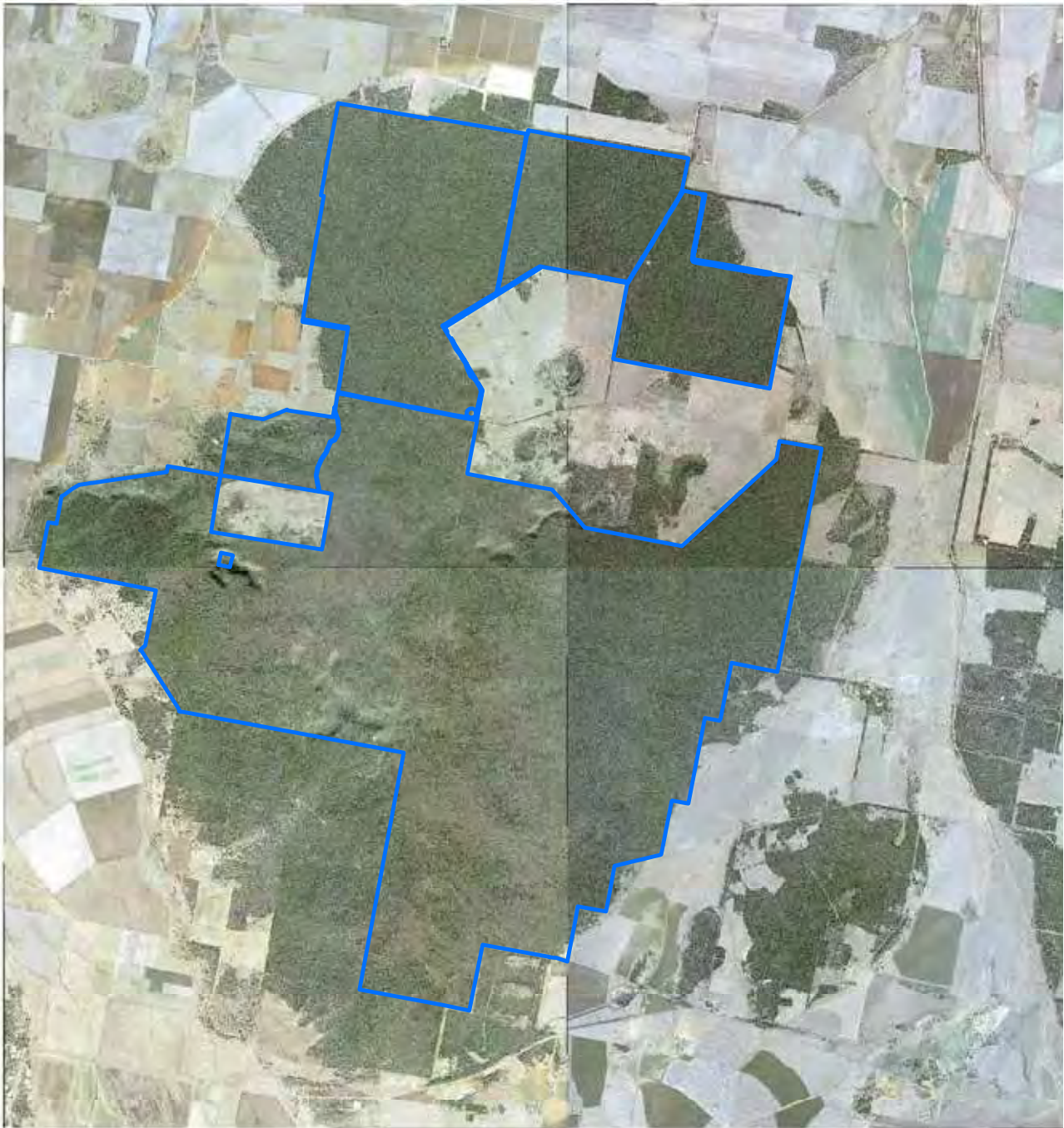
-  Trinkey State Conservation Area
-  Other Zone 3 State Conservation Areas


Spatial data courtesy of Office of Environment and Heritage.



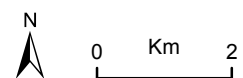
Trinke State Conservation Area

Aerial



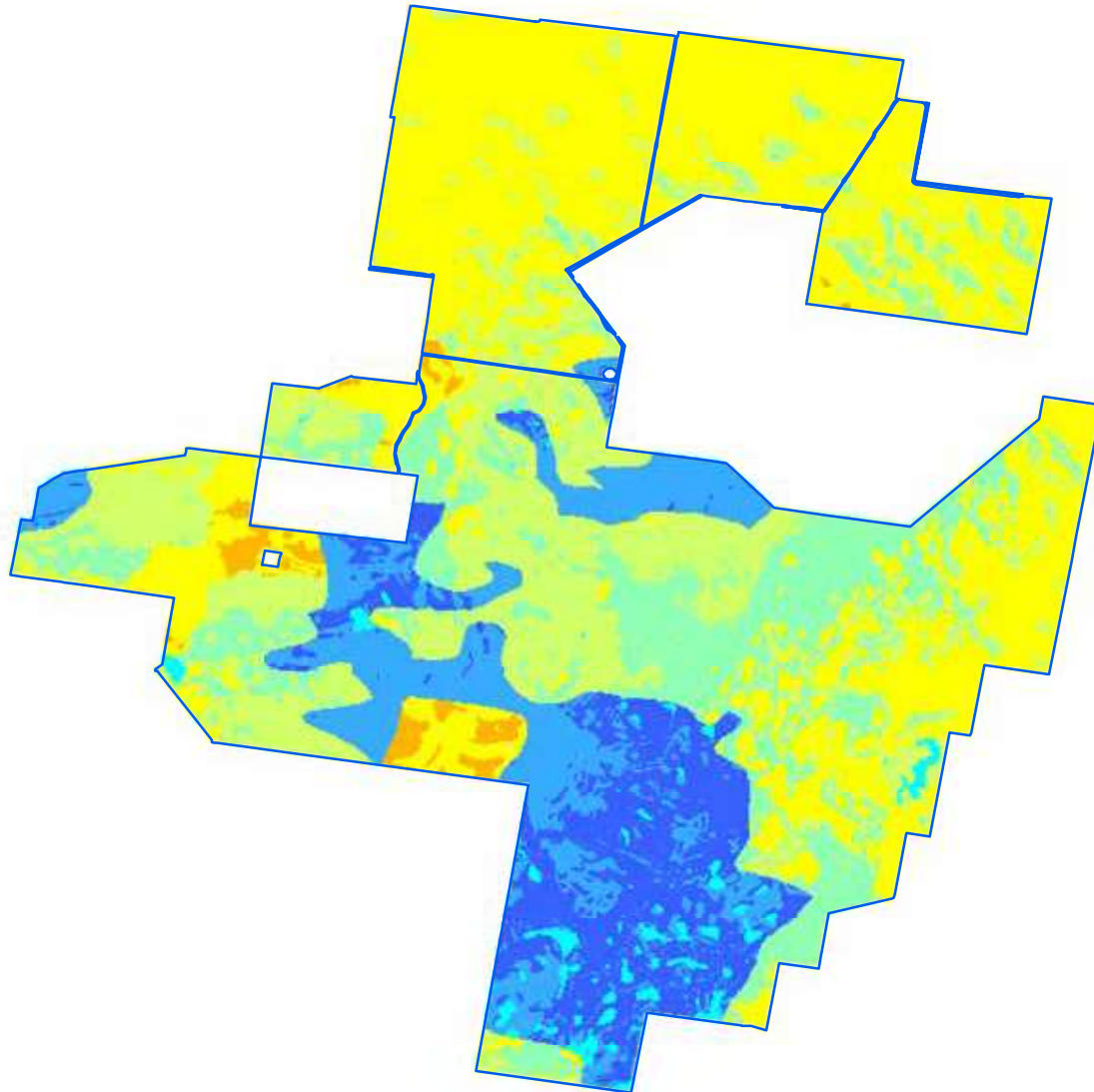
 Trinkey State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Trinkey State Conservation Area

Predicted location - white cypress pine



Relative probability (%) of white cypress pine occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- 80 - 90
- 90 - 100

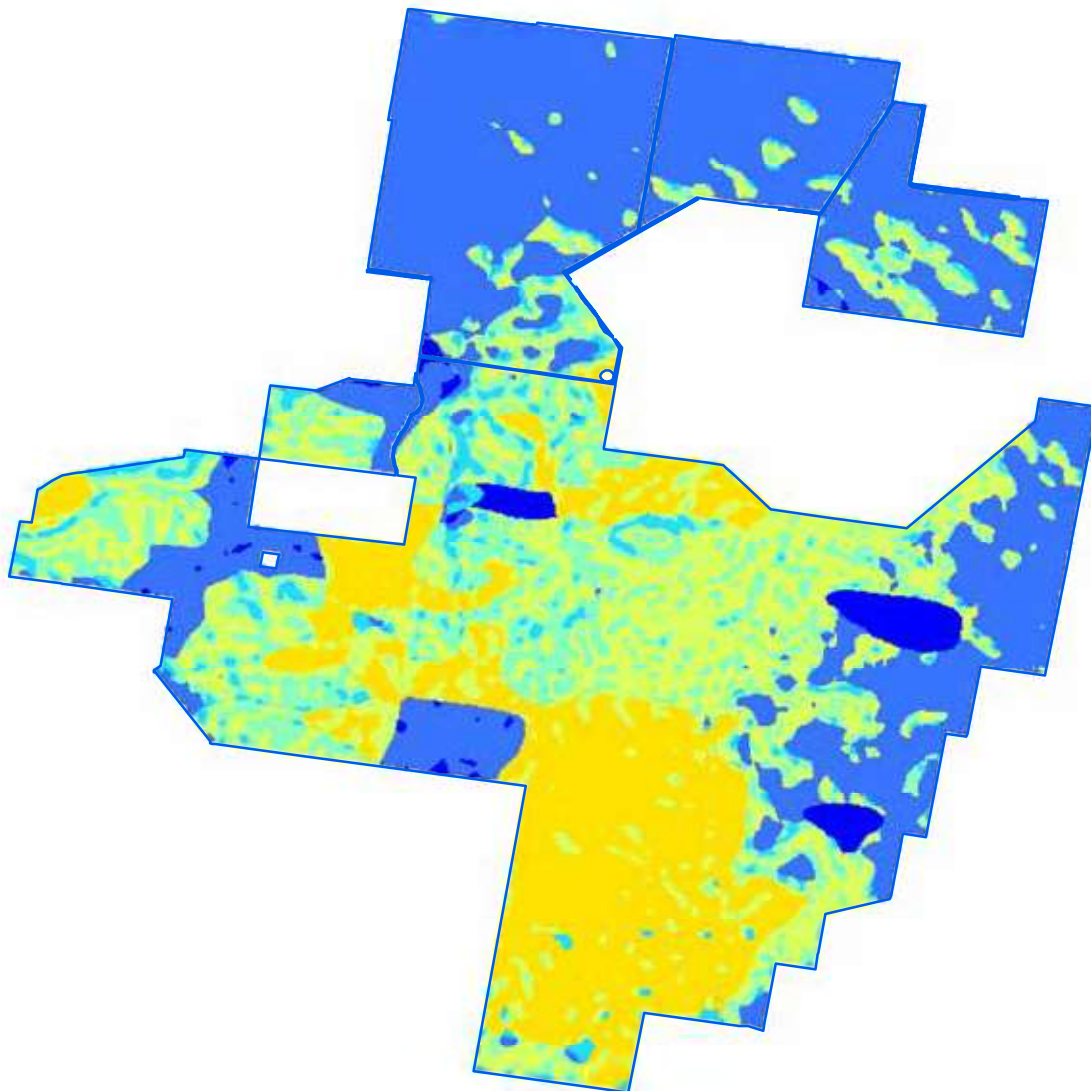
Trinkey State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Trinkey State Conservation Area

Predicted location - black cypress pine



Relative probability (%) of black cypress pine occurrence

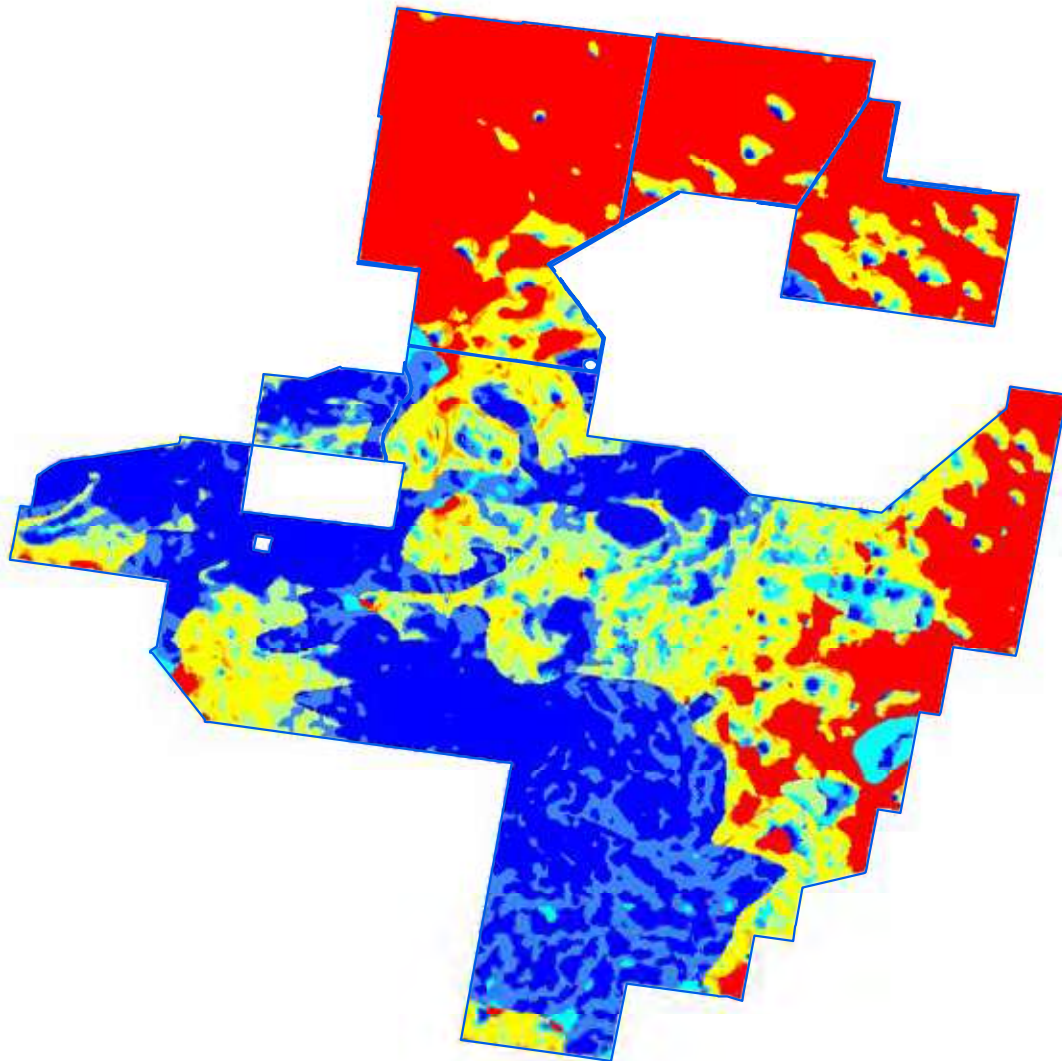
- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- Trinkey State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.

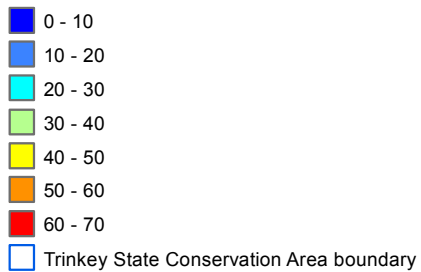


Trinkey State Conservation Area

Predicted location - bulloak



Relative probability (%) of bulloak occurrence

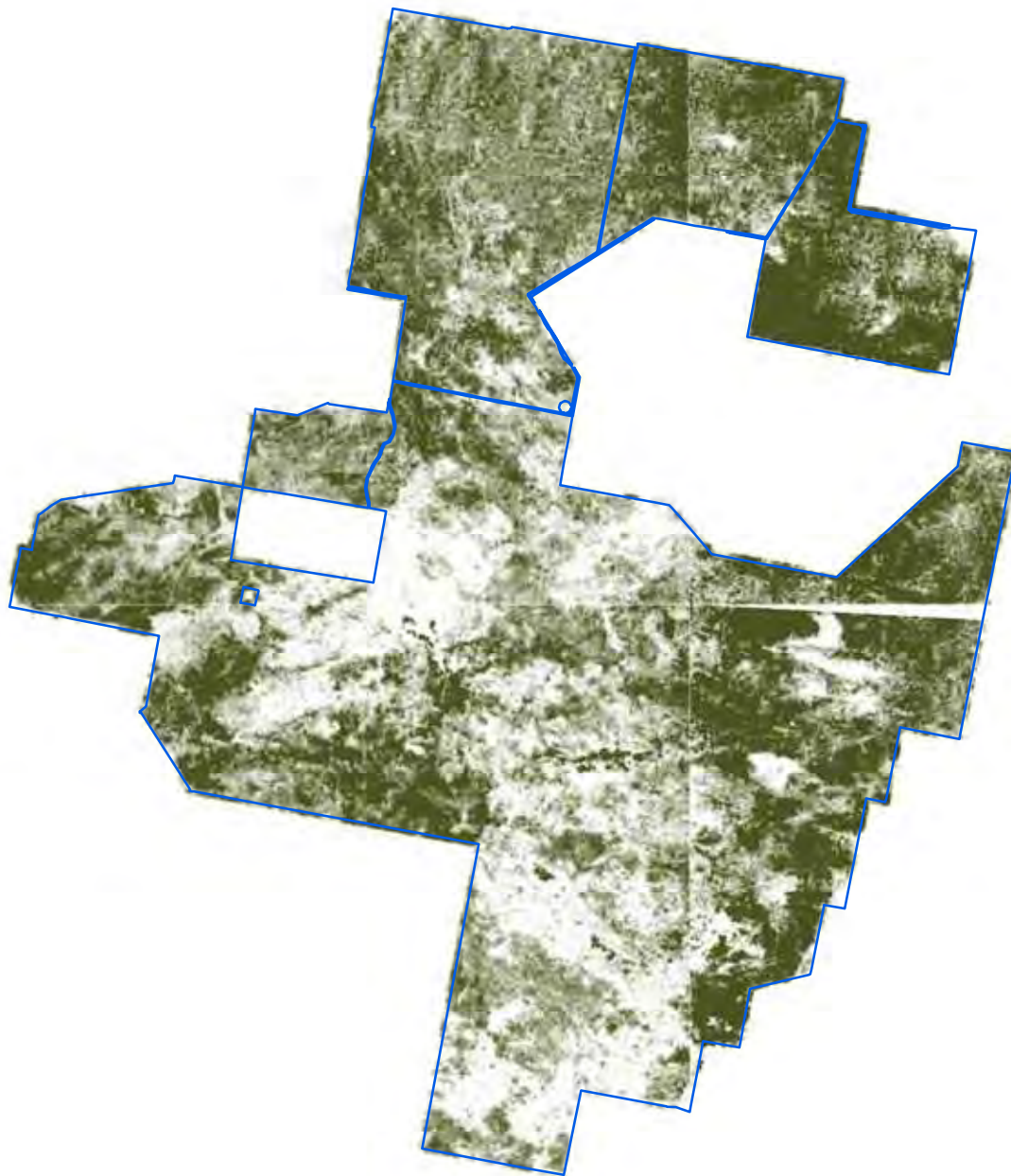




Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.




Trinke State Conservation Area

Continuous canopy density surface - cypress pine



 More dense canopy
 Less dense canopy

 Trinke State Conservation Area boundary

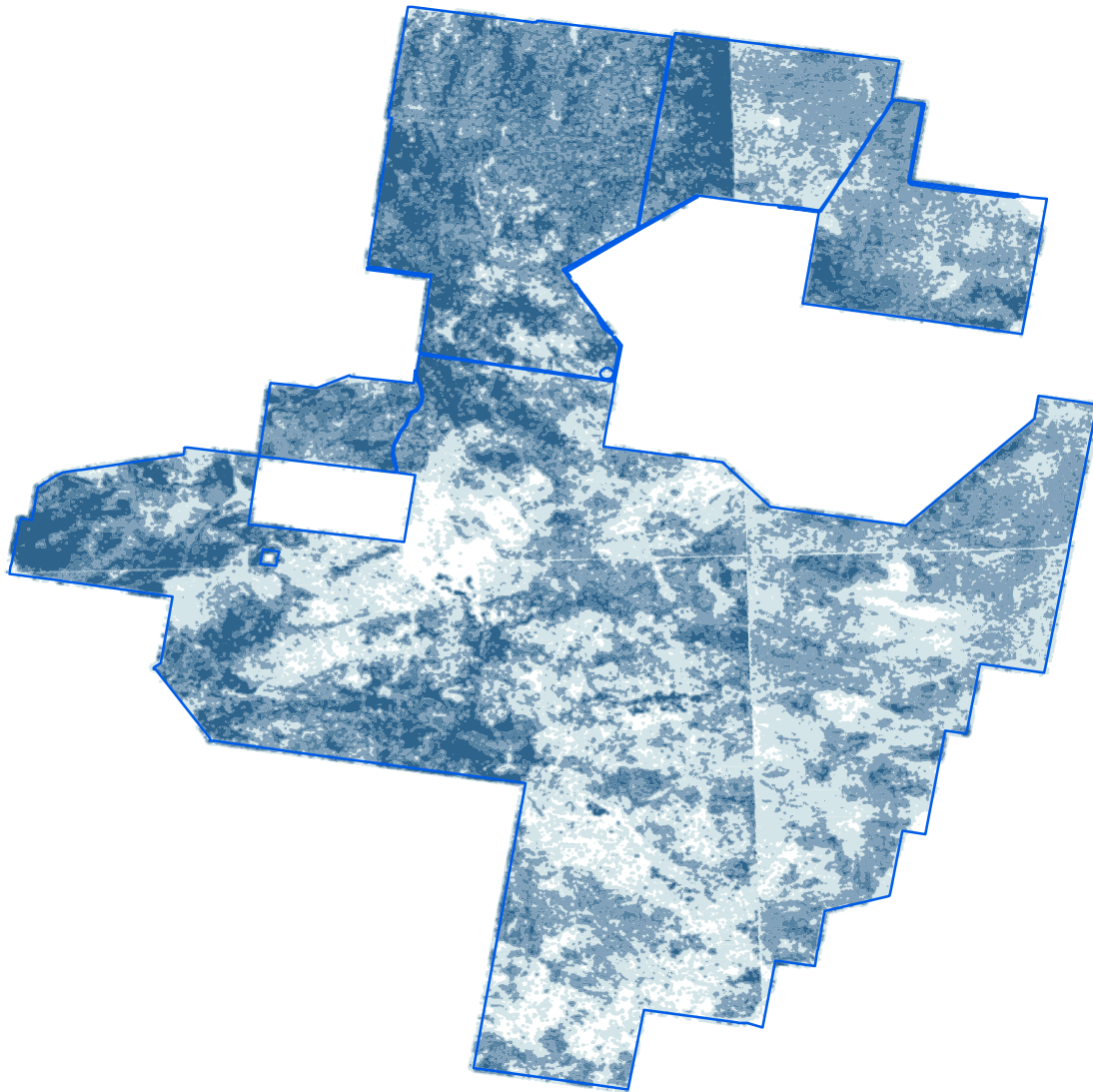
ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



0 Km 3

Trinkey State Conservation Area

Discrete canopy density classes - cypress pine



Canopy density classes

- Class 0 (little or no cypress pine detected)
- Density slice range 1 to 10
- Density slice range 10 to 20
- Density slice range 20 to 30
- Density slice range 30 to 100
- Trinkey State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Trinkey State Conservation Area

Summary statistics - spatial analysis

| Area of cypress canopy classes (excludes areas affected by wildfire since 2009) | |
|---|------------------|
| Class | Total (hectares) |
| Class 0 (little or no cypress detected) | 625 |
| Class 1 (1-10 percent) | 3,245 |
| Class 2 (11-20 percent) | 3,375 |
| Class 3 (21-30 percent) | 2,074 |
| Class 4 (>31 percent) | 1,358 |

| Issues and confidence levels for ADS40 spatial products | | |
|---|--|-------------------|
| ADS40 image quality | Issues | Confidence levels |
| High | Image classification and mapping includes other species in south western section | Higher |

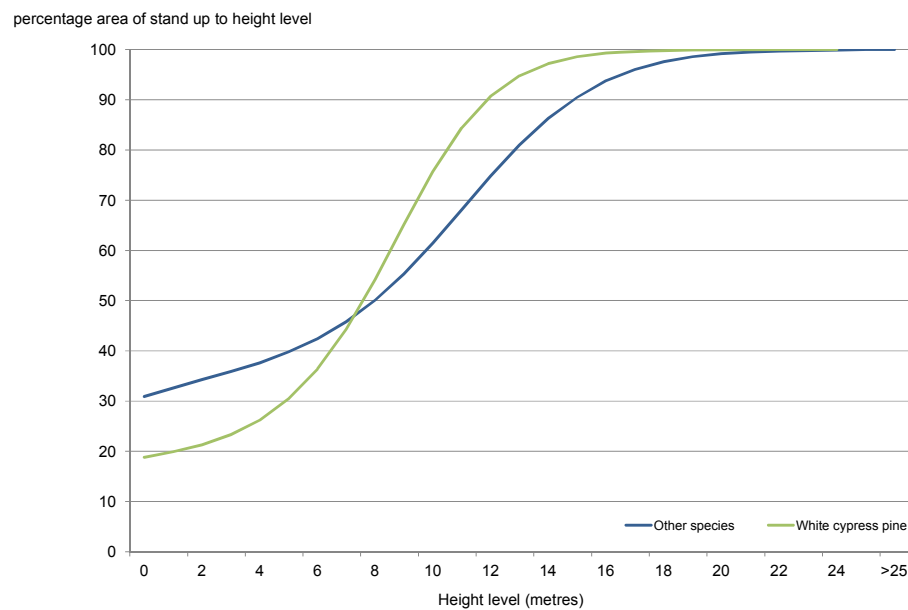
Trinkey State Conservation Area

Summary statistics - spatial analysis

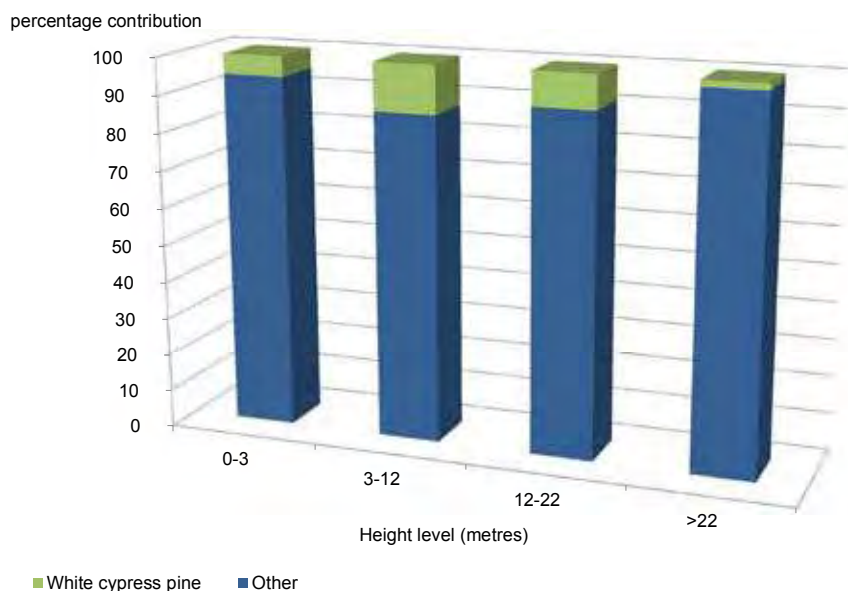
Light detection and ranging (LiDAR) data and analysis

Cumulative height and percentage cover charts show the average cumulative height for white cypress pine and other species, averaged over the State Conservation Area. The figures also show the relative proportion of white cypress pine cover and other species' cover within four height classes, averaged over the State Conservation Area.

Cumulative height chart



Percentage cover chart



Key insights include:

- High proportion of mid-size cypress, with 60 percent of cover occurring in the 8 to 14 metre range. Fewer larger cypress, but some smaller trees.
- Relatively more area of white cypress pine cover in the 0 - 3 metre height range.
- Most white cypress pine cover occurs in the 3 - 12 metre height range.
- Average white cypress pine cover contribution is 9.3 percent across all height classes.

Trinkey State Conservation Area

Summary statistics - general

| Lindsay types | Area (hectares) | Proportion of total (%) |
|---|-----------------|-------------------------|
| Messmate (incl. Forest Types - 150, 151, 152 & 156) (Eden E.I.S. (1988) Area) | 19 | <1 |
| Red Gum - Roughbark Apple - White Cypress Pine (Lindsay Types) | 14 | <1 |
| Red Gum (<i>blakeyi</i>) - Roughbark Apple - White Cypress Pine - (Black Pine) (Western Region) | 58 | 1 |
| Narrowleaf Ironbark - Forest Oak | 64 | 1 |
| Narrowleaf Ironbark - Forest Oak - White Cypress Pine (Lindsay Types) | 2,942 | 29 |
| Narrowleaf Ironbark - Forest Oak - White Cypress Pine - (Black Pine) (Western Region) | 816 | 8 |
| White Box - White Cypress Pine (Lindsay Types) | 63 | 1 |
| Broadleaf Ironbark - Bloodwood (Lindsay Types) | 1,831 | 18 |
| White Cypress Pine - Red Gum - Roughbark Apple (Lindsay Types) | 199 | 2 |
| White Cypress Pine - Narrowleaf Ironbark - Red Gum (Lindsay Types) | 147 | 1 |
| White Cypress Pine - Narrowleaf Ironbark - Forest Oak (Lindsay Types) | 1,190 | 12 |
| White Cypress Pine - Narrowleaf Ironbark - Forest Oak - (Black Pine) (Western Region) | 44 | <1 |
| Pilliga Box (Lindsay Types) | 142 | 1 |
| Pilliga Box - White Cypress Pine (Lindsay Types) | 46 | <1 |
| White Cypress Pine - White Box (Lindsay Types) | 494 | 5 |
| White Cypress Pine - Broadleaf Ironbark - Red Gum (Lindsay Types) | 285 | 3 |
| White Cypress Pine - Broadleaf Ironbark - Bloodwood (Western Region) | 14 | <1 |
| White Cypress Pine - Broadleaf Ironbark - Bloodwood - (Black Pine) (Western Region) | 159 | 2 |
| White Cypress Pine - Bloodwood - Narrowleaf Ironbark - Red Gum (Lindsay Types) | 222 | 2 |
| Bloodwood - Red Gum (<i>blakeyi</i>) - White Cypress Pine - (Black Pine) (Western Region) | 24 | <1 |
| Bloodwood - Broadleaf Ironbark - Red Gum (<i>blakeyi</i>) - (Black Pine) (Western Region) | 51 | <1 |
| Bloodwood - Broadleaf Ironbark - White Cypress Pine (Western Region) | 27 | <1 |
| Bloodwood - Broadleaf Ironbark - White Cypress Pine - (Black Pine) (Western Region) | 1,315 | 13 |

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|---|--------------------------|-----------------------|
| VCA 417: Black Cypress Pine - Narrow-leaved Ironbark - red gum +/- White Bloodwood shrubby open forest on hills of the southern Pilliga, Coonabarabran and Garawilla regions, Brigalow Belt South Bioregion | - | - |
| VCA 148: Dirty Gum - Buloke - White Cypress Pine - ironbark shrubby woodland on deep sandy soils in the Liverpool Plains region of the Brigalow Belt South Bioregion | - | - |
| VCA 398: Narrow-leaved Ironbark - White Cypress Pine - Buloke tall open forest on lower slopes and flats in the Pilliga Scrub and surrounding forests in the central north Brigalow Belt South Bioregion | - | - |
| VCA 88: Pilliga Box - White Cypress Pine - Buloke shrubby woodland in the Brigalow Belt South Bioregion | - | - |

Trinkey State Conservation Area

Summary statistics - general

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|--|--------------------------|-----------------------|
| VCA 399: Red gum - Rough-barked Apple +/- tea tree sandy creek woodland (wetland) in the Pilliga - Goonoo sandstone forests, Brigalow Belt South Bioregion | - | - |
| VCA 401: Rough-barked Apple - red gum - cypress pine woodland on sandy flats, mainly in the Pilliga Scrub region | - | - |
| VCA 145: Western Rosewood - Wilga - Wild Orange - Belah low woodland of the Brigalow Belt South and eastern Darling Riverine Plains Bioregions | - | - |
| VCA 457: White Bloodwood - Red Ironbark - Black Cypress Pine woodland on sandstone hills in the Garawilla - Liverpool Plains region, Brigalow Belt South Bioregion | - | - |
| VCA 435: White Box - White Cypress Pine shrub grass hills woodland in the Brigalow Belt South and Nandewar Bioregions | yes | yes |
| VCA 458: White Cypress Pine - Buloke - White Box shrubby open forest on hills in the Liverpool Plains - Dubbo region, Brigalow Belt South Bioregion | - | - |
| VCA 77: Yarran shrubland of the NSW central to northern slopes and plains | nominated | - |

¹ NSW *Threatened Species Conservation Act 1995*

² Australian Government *Environment Protection and Biodiversity Conservation Act 1999*

| Native species recorded | | Number | |
|---|---|--------------------------|-----------------------|
| Flora | | 414 | |
| Fauna | | 98 | |
| Threatened species | | NSW TSC Act ¹ | EPBC Act ² |
| Scientific name | Common name | | |
| Flora | | | |
| <i>Tylophora linearis</i> | | V | E |
| <i>Rulingia procumbens</i> | | V | V |
| Fauna | | | |
| <i>Hieraaetus morphnoides</i> | Little eagle | V | - |
| <i>Burhinus grallarius</i> | Bush stone-curlew | E1 | - |
| <i>Calyptorhynchus lathamii</i> | Glossy black-cockatoo | V | - |
| <i>Glossopsitta pusilla</i> | Little lorikeet | V | - |
| <i>Neophema pulchella</i> | Turquoise parrot | V | - |
| <i>Climacteris picumnus victoriae</i> | Brown treecreeper (eastern subspecies) | V | - |
| <i>Chthonicola sagittata</i> | Speckled warbler | V | - |
| <i>Pomatostomus temporalis temporalis</i> | Grey-crowned babbler (eastern subspecies) | V | - |
| <i>Daphoenositta chrysoptera</i> | Varied sittella | V | - |
| <i>Phascolarctos cinereus</i> | Koala | V | V |
| <i>Chalinolobus picatus</i> | Little pied bat | V | - |

| Cultural heritage - Aboriginal and non-Aboriginal | Number of sites |
|---|-----------------|
| AHIMS registered sites | 30 |
| Heritage items or places of historic significance | 2 |

Trinkey State Conservation Area

Summary statistics - general

| Current management plans | Status |
|--|--------------------------------|
| Plan of management | Draft - February 2012 |
| <p>In the long term it is intended for Trinkey State Conservation Area to become a national park, therefore management of the state conservation area will also be guided by the management principles for national parks as far as possible.</p> <p>Specific management directions - In addition to the general principles for the management of state conservation areas, the management of Trinkey State Conservation Area will focus on the protection of the significant vegetation communities and threatened native animal species and the protection of Aboriginal heritage sites. Major strategies to achieve these objectives are:</p> <ul style="list-style-type: none"> • on-going fire management so that people and property are protected from wildfire, and park values are maintained; • on-going control of pest species to minimise their impact on park values, in particular the weed mother of millions; • protection of cultural heritage places with community involvement, in particular from members of the local Aboriginal community; and • maintenance of information and regulatory signage. | |
| Fire management strategy | September 2013 |
| Regional pest management strategy | Northern plains region 2012-17 |

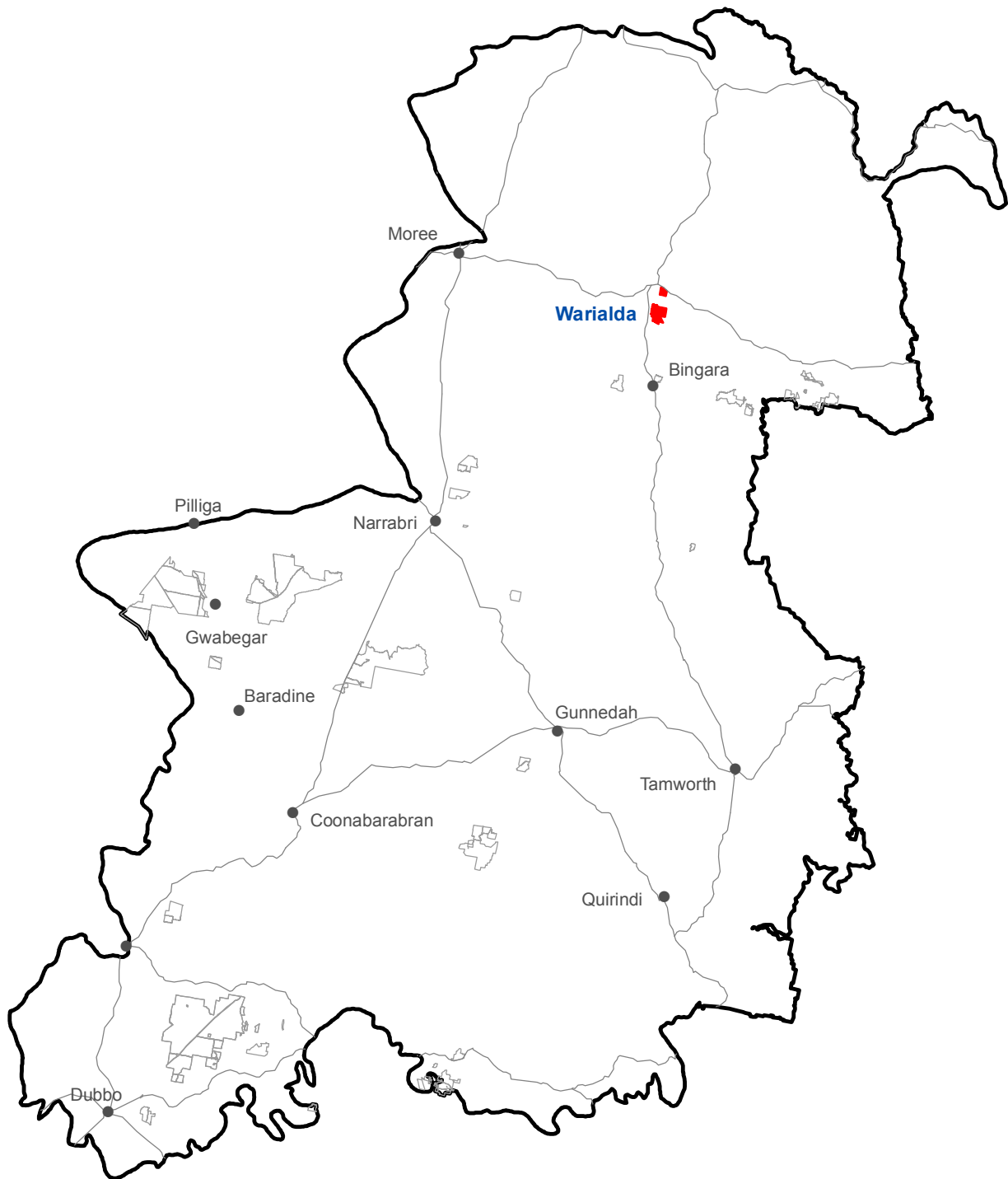
| Fire history | Prescribed burn (hectares) | Wildfire (hectares) |
|--------------|----------------------------|---------------------|
| 2005-06 | 57 | 5 |
| 2010-11 | 689 | - |
| 2011-12 | 301 | - |

| Mining | Number of titles |
|-------------|------------------|
| Exploration | 2 petroleum |
| Application | none |

| Apiarist sites |
|--|
| 6 (44 currently unused but can be reactivated) |

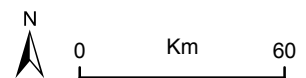
Warialda State Conservation Area (2,913 hectares)

Location



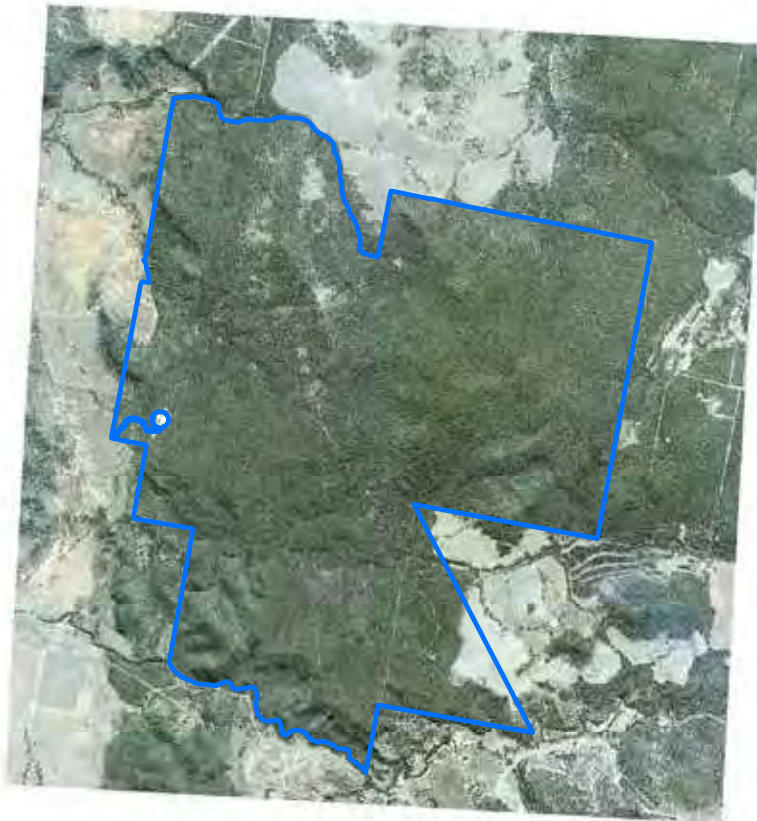
- Warialda State Conservation Area
- Other Zone 3 State Conservation Areas


Spatial data courtesy of Office of Environment and Heritage.



Warialda State Conservation Area

Aerial



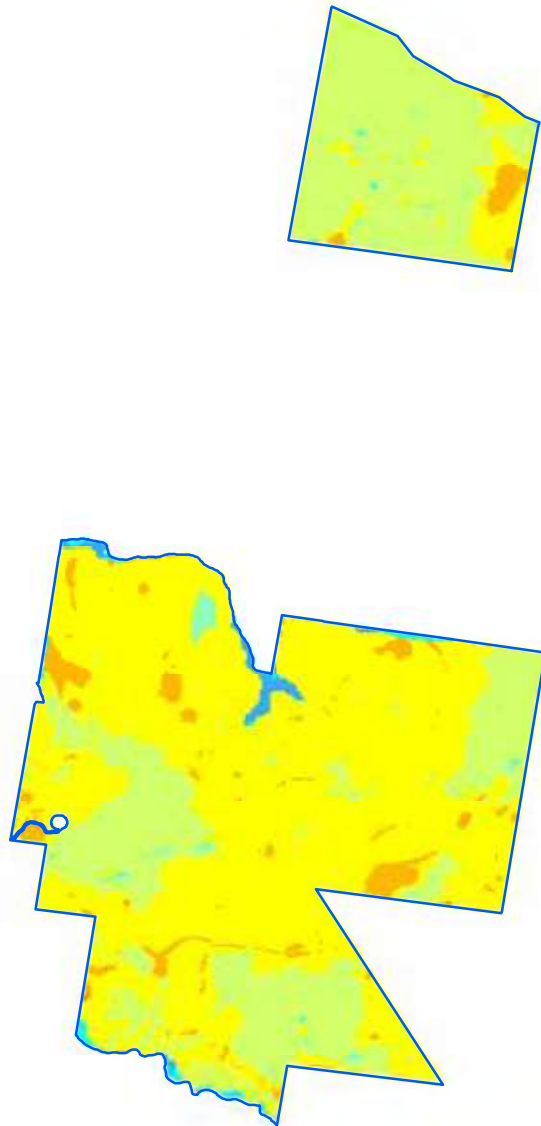
 Warialda State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Warialda State Conservation Area

Predicted location - white cypress pine



Relative probability (%) of white cypress pine occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- 80 - 90
- 90 - 100

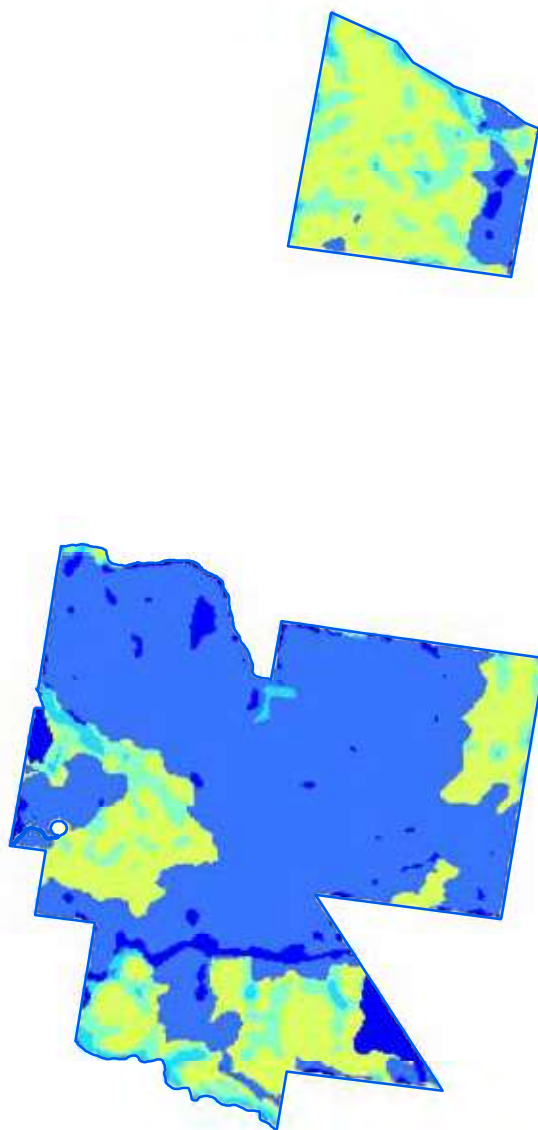
Warialda State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.



Warialda State Conservation Area

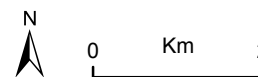
Predicted location - black cypress pine



Relative probability (%) of black cypress pine occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- Warialda State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.

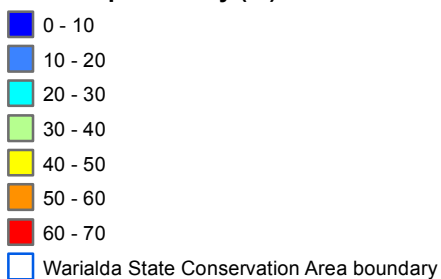


Warialda State Conservation Area

Predicted location - bulloak



Relative probability (%) of bulloak occurrence

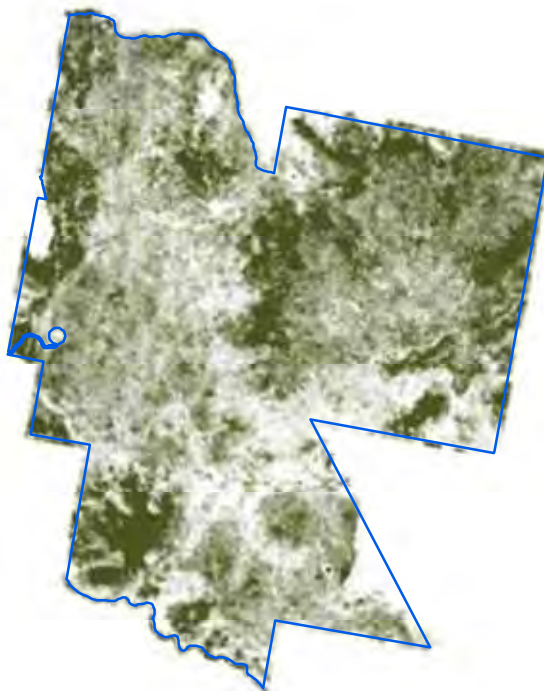



Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.




Warialda State Conservation Area

Continuous canopy density surface - cypress pine



 More dense canopy
Less dense canopy

 Warialda State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).









Warialda State Conservation Area

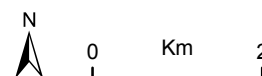
Discrete canopy density classes - cypress pine



Canopy density classes

-  Class 0 (little or no cypress pine detected)
-  Density slice range 1 to 10
-  Density slice range 10 to 20
-  Density slice range 20 to 30
-  Density slice range 30 to 100
-  Warialda State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Warialda State Conservation Area

Summary statistics - spatial analysis

| Area of cypress canopy classes (excludes areas affected by wildfire since 2009) | |
|---|------------------|
| Class | Total (hectares) |
| Class 0 (little or no cypress detected) | 76 |
| Class 1 (1-10 percent) | 1,087 |
| Class 2 (11-20 percent) | 1,080 |
| Class 3 (21-30 percent) | 579 |
| Class 4 (>31 percent) | 295 |

| Issues and confidence levels for ADS40 spatial products | | |
|---|---|-------------------|
| ADS40 image quality | Issues | Confidence levels |
| Medium-high | Image classification and mapping includes other species | Lower |

Warialda State Conservation Area

Summary statistics - general

| Lindsay types | Area (hectares) | Proportion of total (%) |
|---|-----------------|-------------------------|
| Evidence of clearing by man (Lindsay types) | 289 | 10 |
| Black Pine - Roughbark Apple (Western Region) | 1,111 | 38 |
| Western Red Box - Red Gum - White Cypress Pine (Western Region) | 508 | 17 |
| Yellow Box mix - White Cypress Pine (Western Region) | 377 | 13 |
| White Cypress Pine - Silverleaf Ironbark (Lindsay Types) | 93 | 3 |
| Untyped | 528 | 18 |

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|---|--------------------------|-----------------------|
| VCA 112: Black Tea-tree - River Oak - Wilga riparian low forest/shrubland wetland of rich soil depressions in the Brigalow Belt South Bioregion | - | - |
| VCA 544: Rough-barked Apple -/+ cypress pine +/- Blakely's Red Gum riparian open forest / woodland of the Nandewar and New England Tableland Bioregions | yes | yes |
| VCA 598: Silver-leaved Ironbark - White Box - White Cypress Pine viney scrub woodland in the Nandewar and Brigalow Belt South Bioregions | - | - |
| VCA 594: Silver-leaved Ironbark - White Cypress Pine shrubby open forest of Brigalow Belt South and Nandewar Bioregions | - | - |
| VCA 448: Smooth-barked Apple - Black Cypress Pine - Red Stringybark sandstone open forest in the Warialda to Arakoola region of the Brigalow Belt South Bioregion | - | - |
| VCA 562: Tumbledown Red Gum - White Cypress Pine - Caley's Ironbark shrubby open forest of the Nandewar and western New England Tablelands Bioregions | - | - |
| VCA 372: Wattle low woodland/ tall shrubland on sandstone ridges in the northern NSW Brigalow Belt South Bioregion | - | - |
| VCA 597: White Box - cypress pine - Silver-leaved Ironbark shrub grass open forest / woodland of the northern Brigalow Belt South and Nandewar Bioregions | - | - |

¹ NSW *Threatened Species Conservation Act 1995*

² Australian Government *Environment Protection and Biodiversity Conservation Act 1999*

| Native species recorded | | Number | |
|---------------------------------------|---|--------------------------|-----------------------|
| Flora | | 495 | |
| Fauna | | 152 | |
| Threatened species | | | |
| Scientific name | Common name | NSW TSC Act ¹ | EPBC Act ² |
| Flora | | | |
| - | - | - | - |
| Fauna | | | |
| <i>Alectura lathami</i> | Australian brush-turkey population in the Nandewar and Brigalow Belt South Bioregions | E2 | - |
| <i>Glossopsitta pusilla</i> | Little lorikeet | V | - |
| <i>Neophema pulchella</i> | Turquoise parrot | V | - |
| <i>Tyto novaehollandiae</i> | Masked owl | V | - |
| <i>Climacteris picumnus victoriae</i> | Brown treecreeper (eastern subspecies) | V | - |
| <i>Chthonicola sagittata</i> | Speckled warbler | V | - |
| <i>Meliphreptus gularis gularis</i> | Black-chinned honeyeater (eastern subspecies) | V | - |

Warialda State Conservation Area

Summary statistics - general

| Threatened species | | | |
|---|---|--------------------------|-----------------------|
| Scientific name | Common name | NSW TSC Act ¹ | EPBC Act ² |
| Fauna | | | |
| <i>Pomatostomus temporalis temporalis</i> | Grey-crowned babbler (eastern subspecies) | V | - |
| <i>Daphoenositta chrysoptera</i> | Varied sittella | V | - |
| <i>Petaurus norfolcensis</i> | Squirrel glider | V | - |
| <i>Saccolaimus flaviventris</i> | Yellow-bellied sheath-tail-bat | V | - |
| <i>Chalinolobus picatus</i> | Little pied bat | V | - |
| <i>Nyctophilus corbeni</i> | Corben's long-eared bat | V | V |

| Cultural heritage - Aboriginal and non-Aboriginal | Number of sites |
|---|-----------------|
| AHIMS registered sites | 1 |
| Heritage items or places of historic significance | 4 |

| Current management plans | Status |
|-----------------------------------|------------------------------------|
| Plan of management | no |
| Fire management strategy | June 2008 |
| Regional pest management strategy | Northern tablelands region 2012-17 |

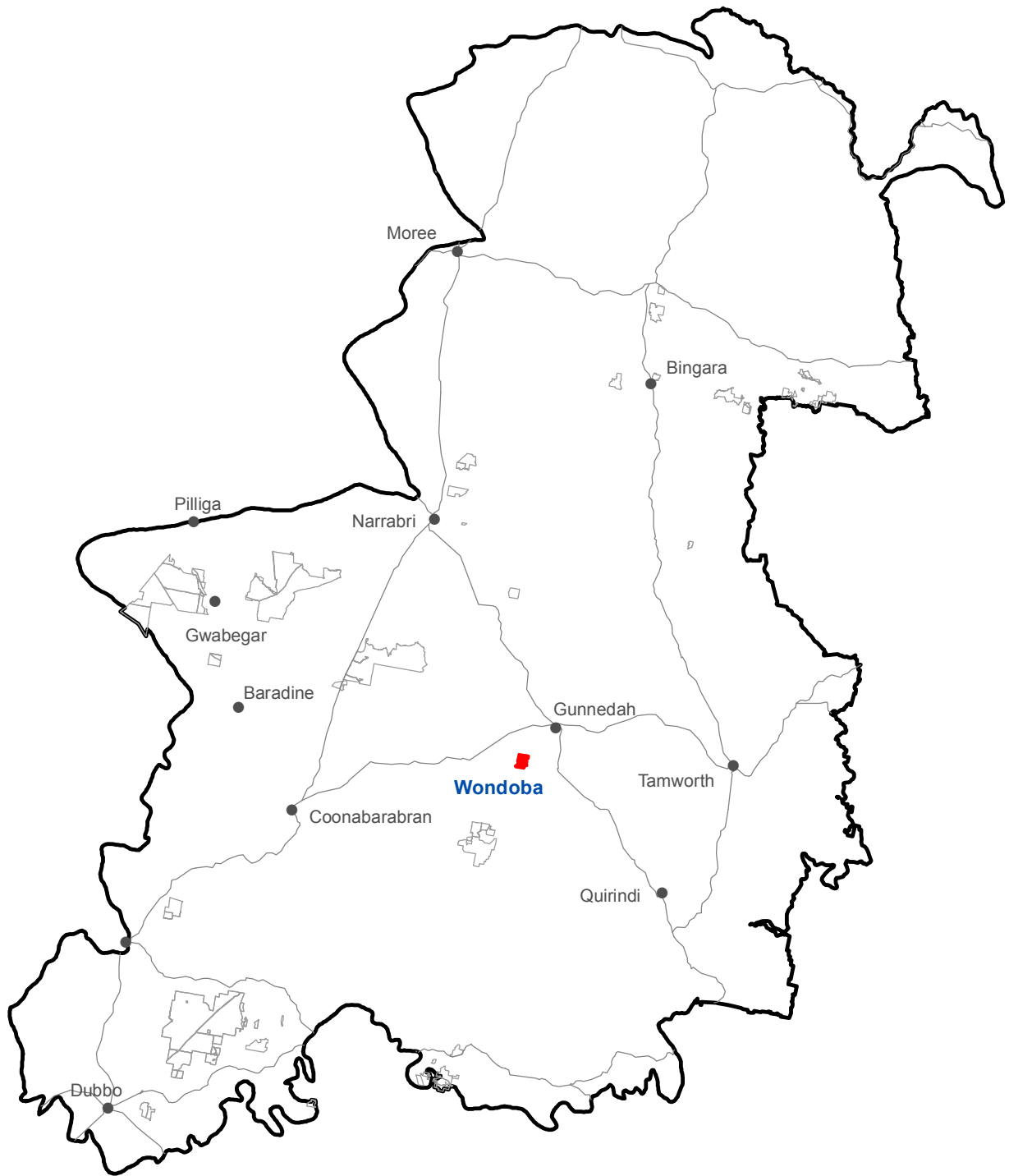
| Fire history | Prescribed burn (hectares) | Wildfire (hectares) |
|-------------------|----------------------------|---------------------|
| 2008-09 - 2012-13 | - | - |



| Mining | Number of titles |
|-------------|------------------------|
| Exploration | 1 petroleum, 2 mineral |
| Application | 1 mineral |

| Apiarist sites |
|----------------|
| 4 |

Wondoba State Conservation Area (1,663 hectares)

Location



-  Wondoba State Conservation Area
-  Other Zone 3 State Conservation Areas


Spatial data courtesy of Office of Environment and Heritage.



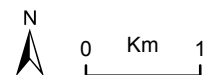
Wondoba State Conservation Area

Aerial



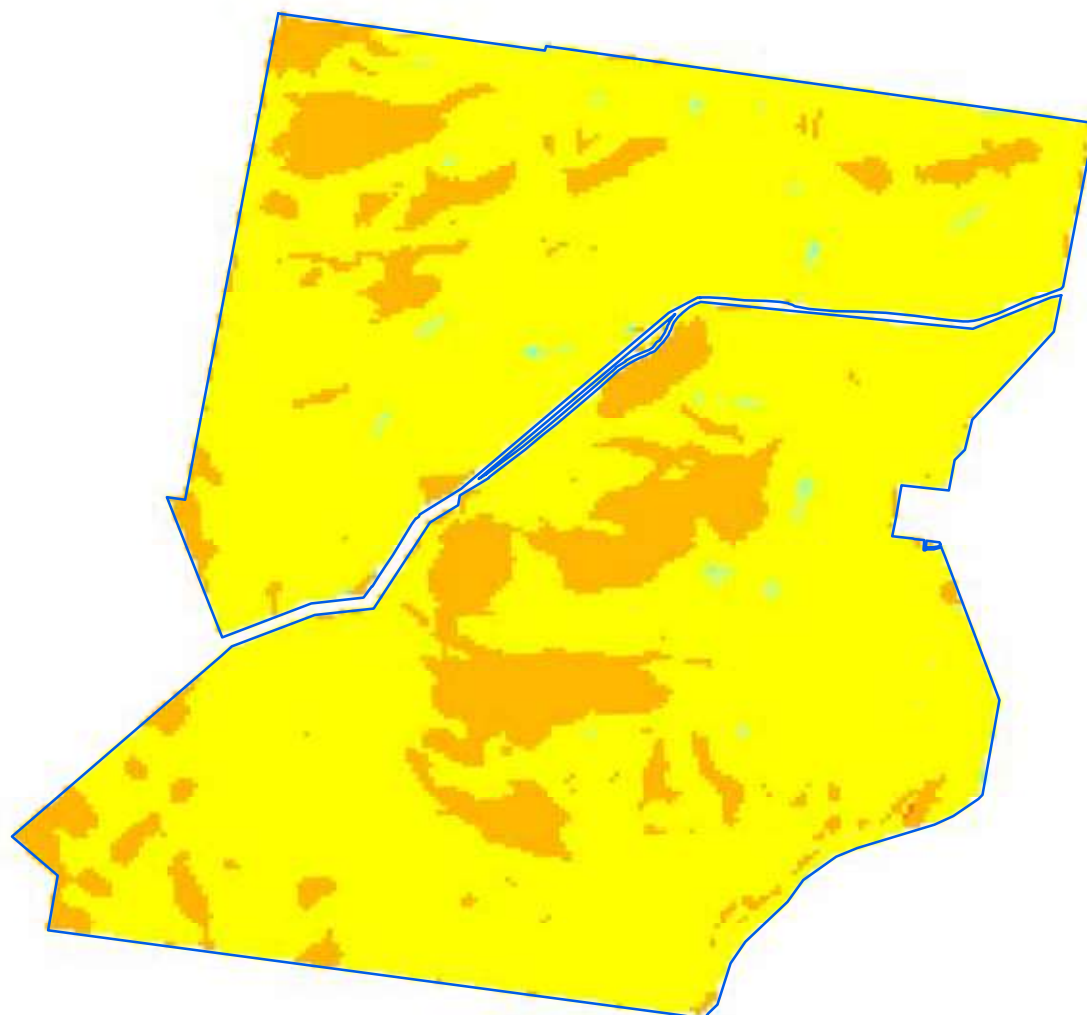
 Wondoba State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Wondoba State Conservation Area

Predicted location - white cypress pine

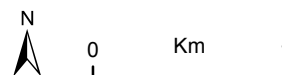


Relative probability (%) of white cypress pine occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- 80 - 90
- 90 - 100

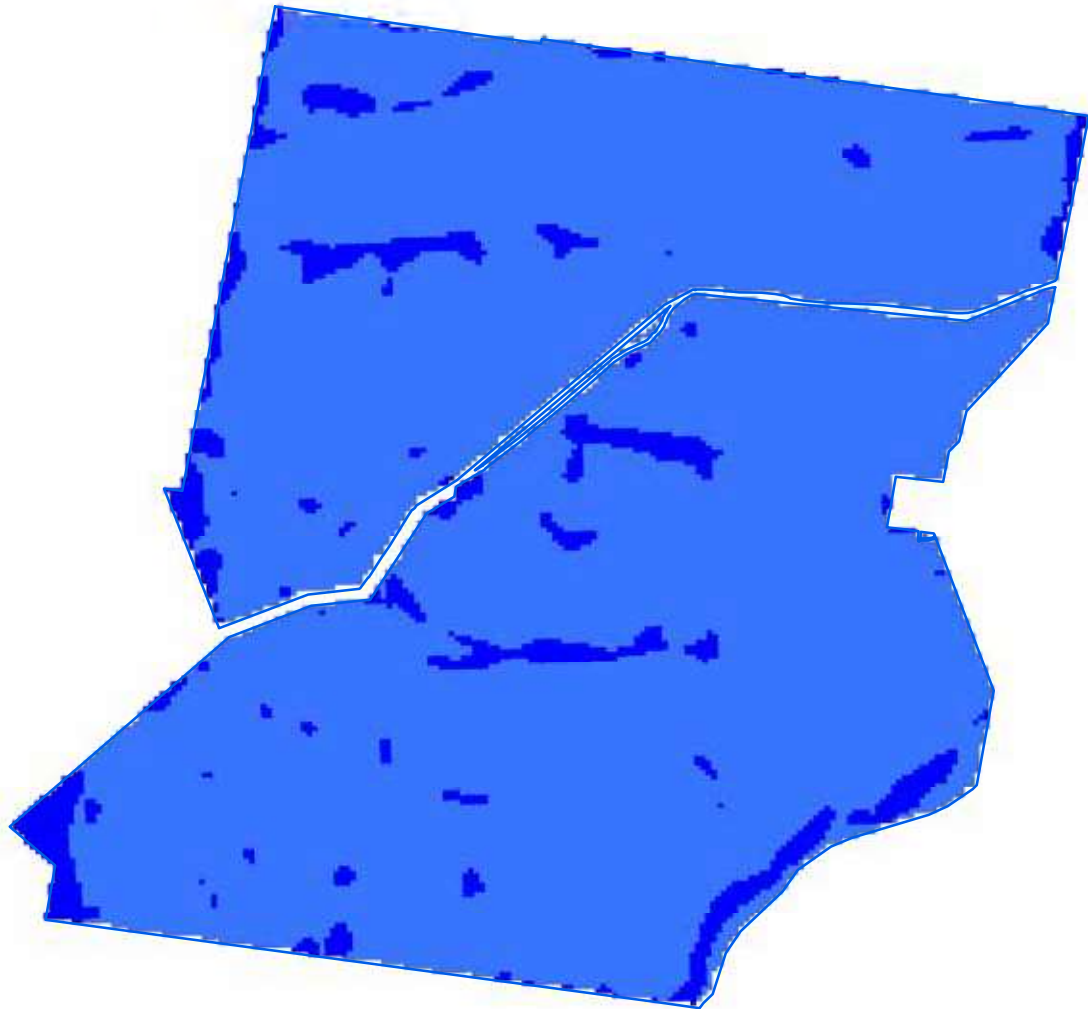
Wondoba State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Wondoba State Conservation Area

Predicted location - black cypress pine



Relative probability (%) of black cypress pine occurrence

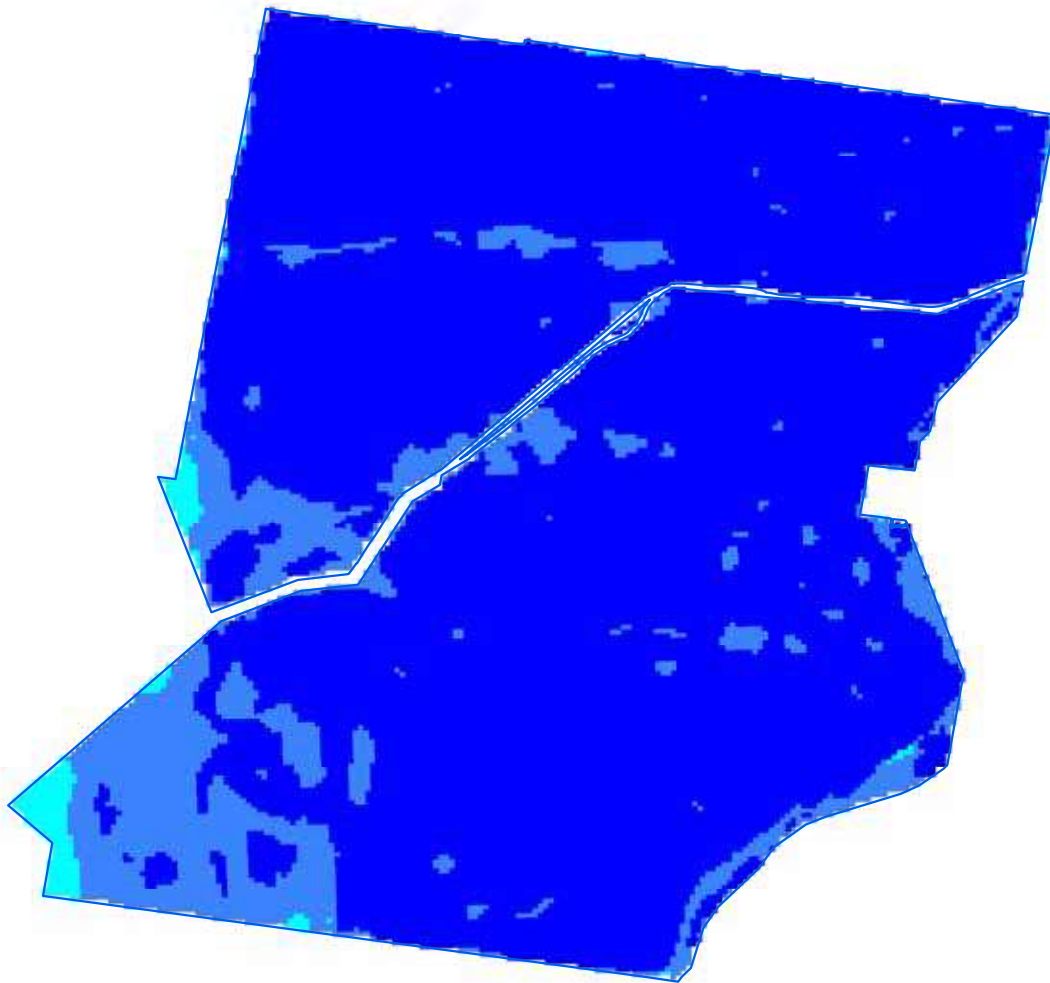
- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- Wondoba State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Wondoba State Conservation Area

Predicted location - bulloak



Relative probability (%) of bulloak occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- Wondoba State Conservation Area boundary



Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.




Wondoba State Conservation Area

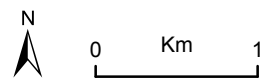
Continuous canopy density surface - cypress pine



 More dense canopy
 Less dense canopy

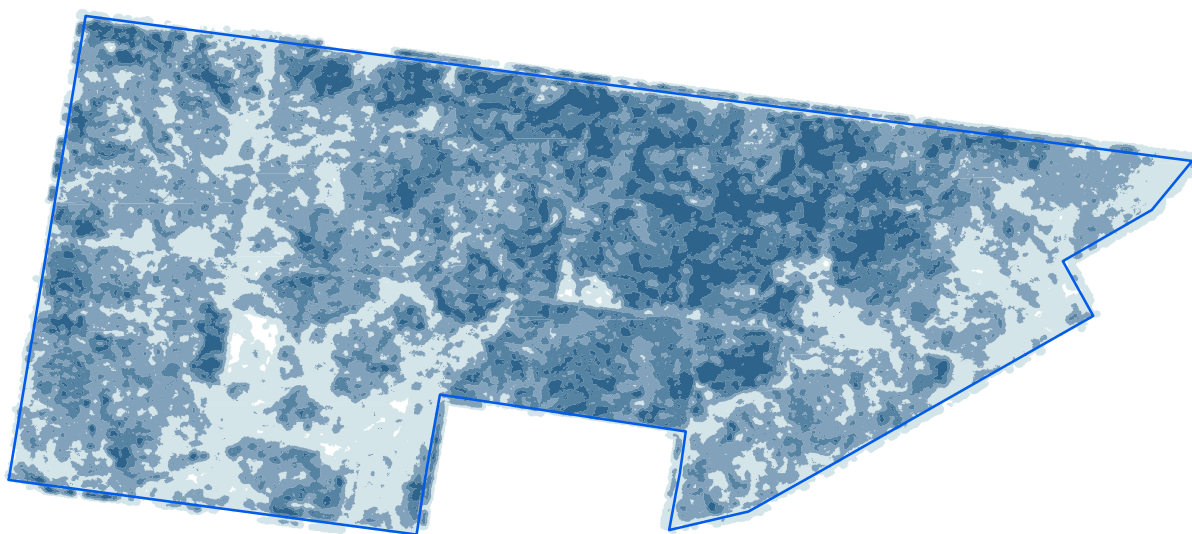
 Killarney State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).









Wondoba State Conservation Area

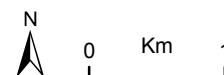
Discrete canopy density classes - cypress pine



Canopy density classes

-  Class 0 (little or no cypress pine detected)
-  Density slice range 1 to 10
-  Density slice range 10 to 20
-  Density slice range 20 to 30
-  Density slice range 30 to 100
-  Killarney State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Wondoba State Conservation Area

Summary statistics - spatial analysis

| Area of cypress canopy classes (excludes areas affected by wildfire since 2009) | |
|---|------------------|
| Class | Total (hectares) |
| Class 0 (little or no cypress detected) | 41 |
| Class 1 (1-10 percent) | 709 |
| Class 2 (11-20 percent) | 639 |
| Class 3 (21-30 percent) | 286 |
| Class 4 (>31 percent) | 102 |

| Issues and confidence levels for ADS40 spatial products | | |
|---|--------|-------------------|
| ADS40 image quality | Issues | Confidence levels |
| High | - | Higher |

Wondoba State Conservation Area

Summary statistics - general

| Lindsay types | Area (hectares) | Proportion of total (%) |
|---------------|-----------------|-------------------------|
| Untyped | 1,654 | - |

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|---|--------------------------|-----------------------|
| VCA 417: Black Cypress Pine - Narrow-leaved Ironbark - red gum +/- White Bloodwood shrubby open forest on hills of the southern Pilliga, Coonabarabran and Garawilla regions, Brigalow Belt South Bioregion | - | - |
| VCA 459: Narrow-leaved Ironbark - cypress pine - White Box shrubby woodland in sedimentary hills of the Gunnedah region, Brigalow Belt South Bioregion | - | - |
| VCA 435: White Box - White Cypress Pine shrub grass hills woodland in the Brigalow Belt South and Nandewar Bioregions | yes | yes |

¹ NSW *Threatened Species Conservation Act 1995*

² Australian Government *Environment Protection and Biodiversity Conservation Act 1999*

| Native species recorded | | Number | |
|---|---|--------------------------|-----------------------|
| Flora | | 275 | |
| Fauna | | 86 | |
| Threatened species | | NSW TSC Act ¹ | EPBC Act ² |
| Scientific name | Common name | | |
| Flora | | | |
| - | - | - | - |
| Fauna | | | |
| <i>Glossopsitta pusilla</i> | Little lorikeet | V | - |
| <i>Climacteris picumnus victoriae</i> | Brown treecreeper (eastern subspecies) | V | - |
| <i>Chthonicola sagittata</i> | Speckled warbler | V | - |
| <i>Pomatostomus temporalis temporalis</i> | Grey-crowned babbler (eastern subspecies) | V | - |
| <i>Daphoenositta chrysoptera</i> | Varied sittella | V | - |
| <i>Phascolarctos cinereus</i> | Koala | V | V |
| <i>Nyctophilus corbeni</i> | Corben's long-eared bat | V | V |

| Cultural heritage - Aboriginal and non-Aboriginal | Number of sites |
|---|-----------------|
| AHIMS registered sites | 15 |
| Heritage items or places of historic significance | 3 |

Wondoba State Conservation Area

Summary statistics - general

| Current management plans | Status |
|---|--------------------------------|
| Plan of management | Draft - February 2012 |
| <p>In the long term it is intended for Wondoba State Conservation Area to become a national park, therefore management of the State conservation area will also be guided by the management principles for national parks as far as possible.</p> <p>Specific management directions: In addition to the general principles for the management of state conservation areas, the management of Wondoba State Conservation Area will focus on the protection of the significant vegetation communities, threatened native animal species and Aboriginal heritage sites.</p> <p>Major strategies to achieve these objectives are:</p> <ul style="list-style-type: none"> • on-going fire management so that people and property are protected from wildfire, and park values are maintained; • on-going control of pest species to minimise their impact on park values, particularly the impact of Coolatai grass (<i>Hyparrhenia hirta</i>); • protection of cultural heritage places with community involvement, in particular from members of the local Aboriginal community; • maintain signage; and • provision of opportunities for recreation activities that are consistent with the protection of the natural and cultural values of the reserve." | |
| Fire management strategy | September 2013 |
| Regional pest management strategy | Northern plains region 2012-17 |

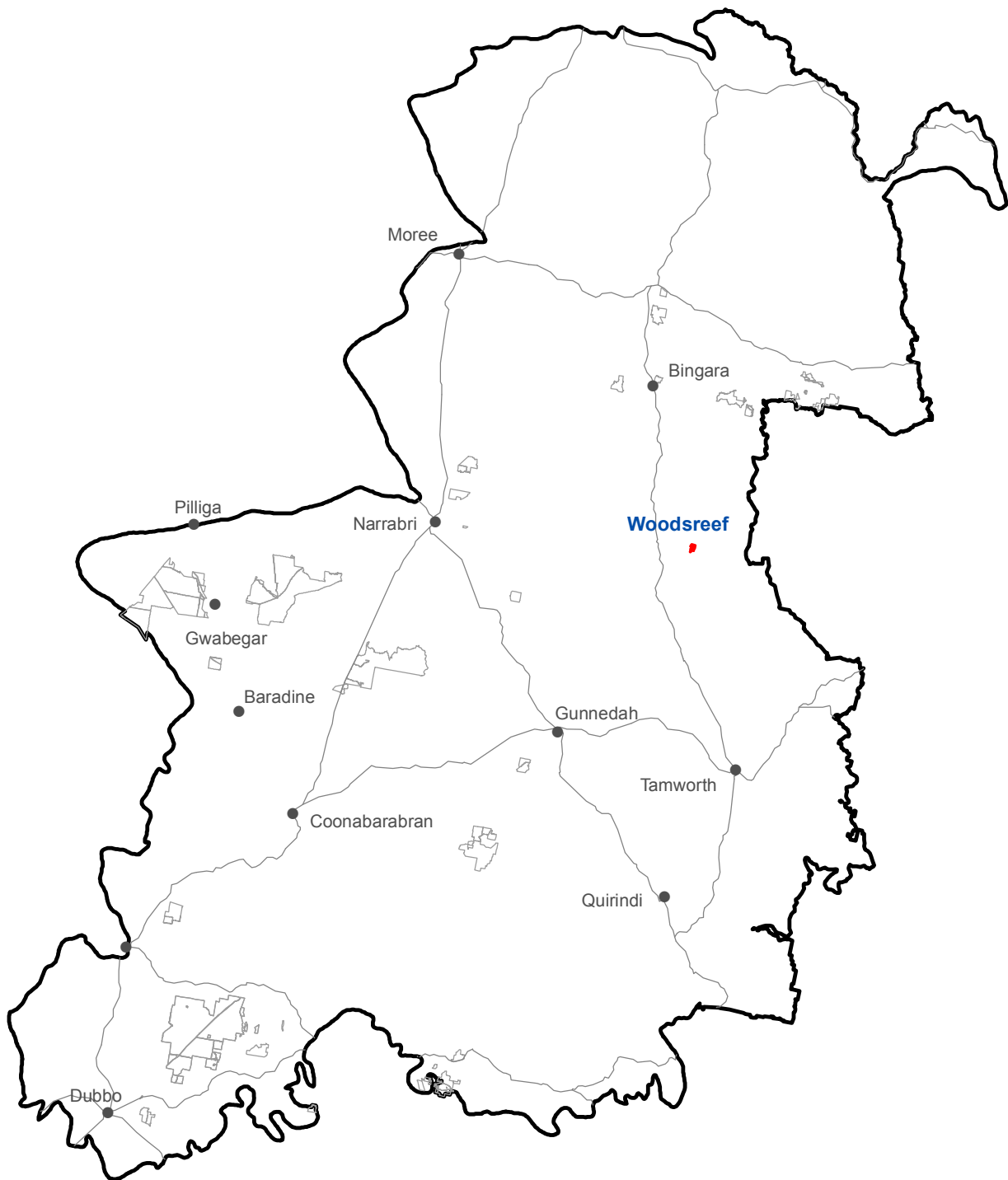
| Fire history | Prescribed burn (hectares) | Wildfire (hectares) |
|--------------|----------------------------|---------------------|
| 2009-10 | 14 | - |
| 2010-11 | 3 | - |

| Mining | Number of titles |
|-------------|---------------------|
| Exploration | 1 coal, 1 petroleum |
| Application | none |

| Apiarist sites |
|--|
| None (6 unused licences that can be reactivated) |

Woodsreef State Conservation Area (331 hectares)

Location



- Woodsreef State Conservation Area
- Other Zone 3 State Conservation Areas


Spatial data courtesy of Office of Environment and Heritage.



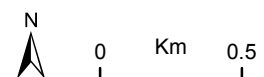
Woodsreef State Conservation Area

Aerial



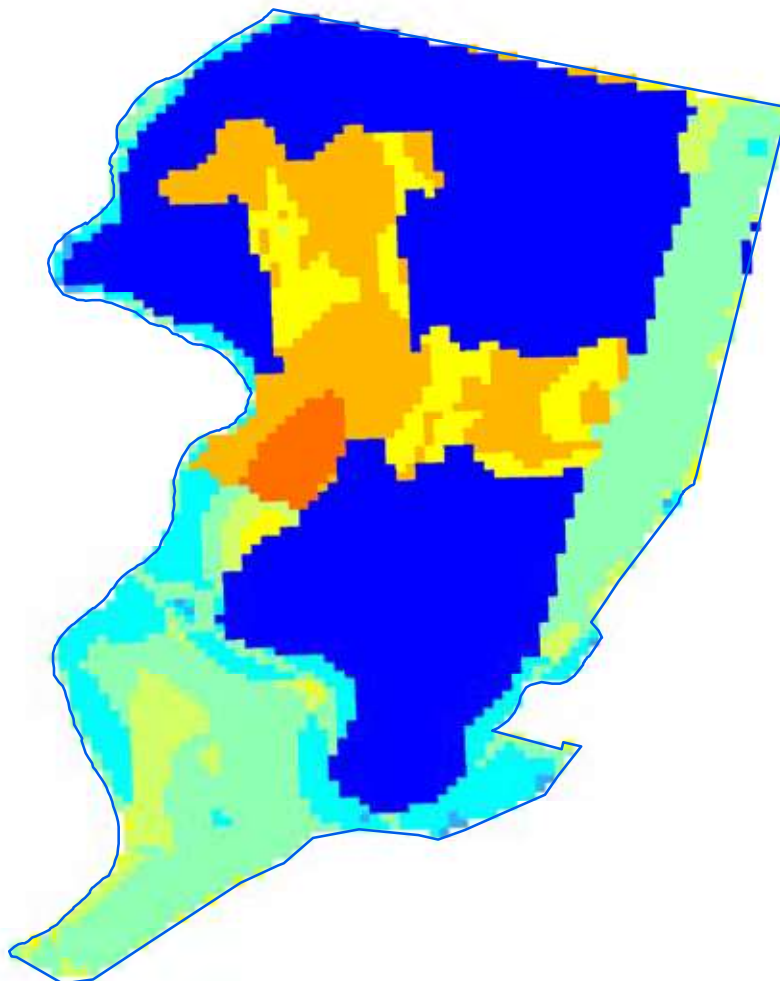
 Woodsreef State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Woodsreef State Conservation Area

Predicted location - white cypress pine



Relative probability (%) of white cypress pine occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- 80 - 90
- 90 - 100

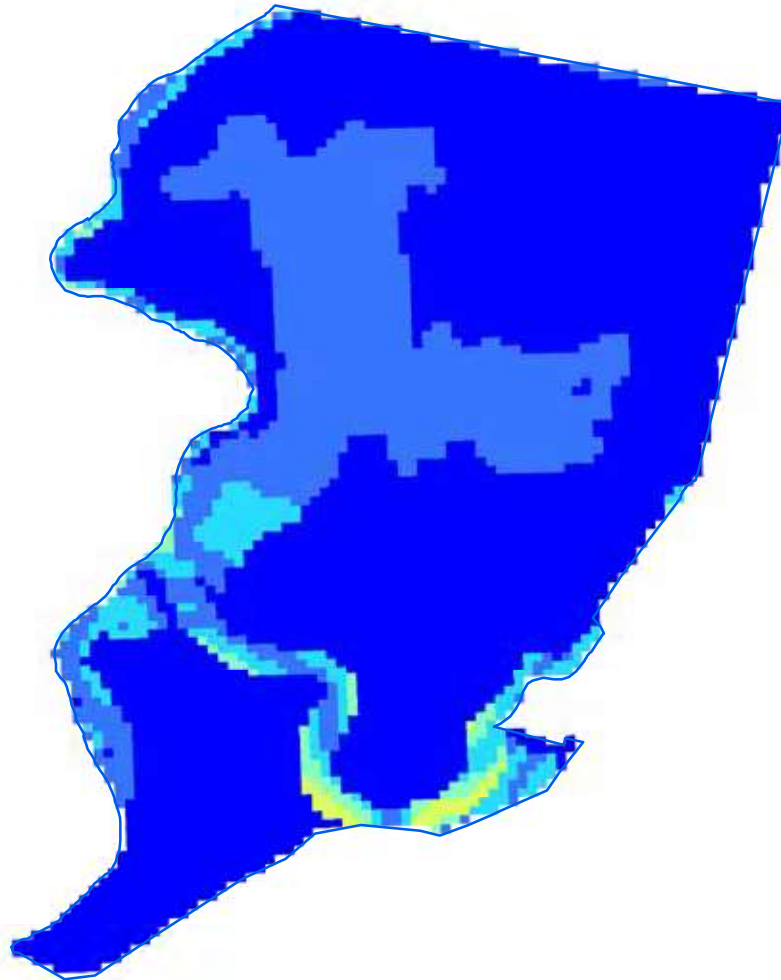
Woodsreef State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.



Woodsreef State Conservation Area

Predicted location - black cypress pine

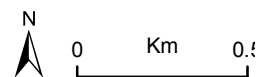


Relative probability (%) of black cypress pine occurrence

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80

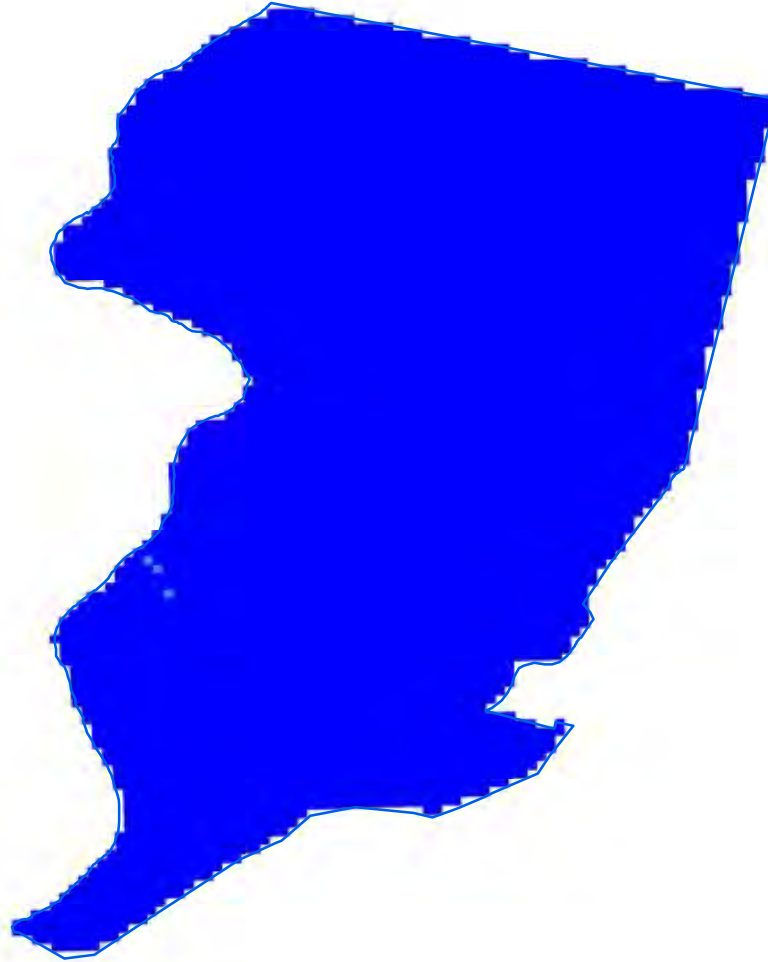
□ Woodsreef State Conservation Area boundary

Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.

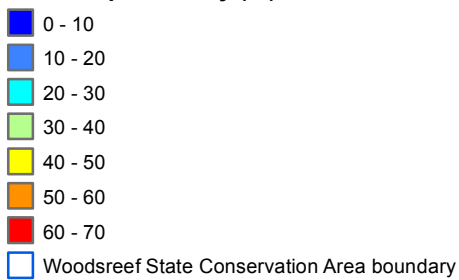


Woodsreef State Conservation Area

Predicted location - bulloak



Relative probability (%) of bulloak occurrence





Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Eco Logical Australia Pty Ltd.




Woodsreef State Conservation Area

Continuous canopy density surface - cypress pine



 More dense canopy
 Less dense canopy

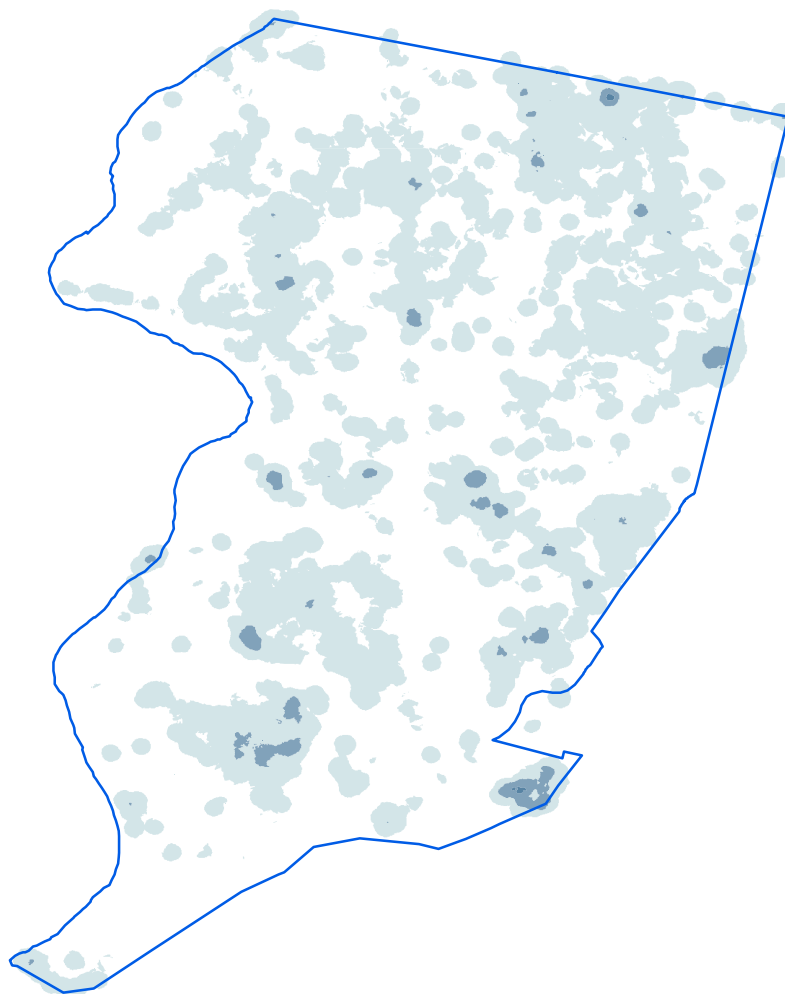
 Woodsreef State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Woodsreef State Conservation Area

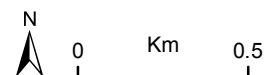
Discrete canopy density classes - cypress pine



Canopy density classes

- Class 0 (little or no cypress pine detected)
- Density slice range 1 to 10
- Density slice range 10 to 20
- Density slice range 20 to 30
- Density slice range 30 to 100
- Woodsreef State Conservation Area boundary

ADS40 Airborne Digital Sensor data.
Spatial data courtesy of Office of Environment and Heritage.
Spatial analysis by Remote Census Pty Ltd (2014).



Woodsreef State Conservation Area

Summary statistics - spatial analysis

| Area of cypress canopy classes (excludes areas affected by wildfire since 2009) | |
|---|------------------|
| Class | Total (hectares) |
| Class 0 (little or no cypress detected) | 200 |
| Class 1 (1-10 percent) | 131 |
| Class 2 (11-20 percent) | 5 |
| Class 3 (21-30 percent) | 0 |
| Class 4 (>31 percent) | 0 |

| Issues and confidence levels for ADS40 spatial products | | |
|---|---|-------------------|
| ADS40 image quality | Issues | Confidence levels |
| High | Image classification and mapping includes other species | Lower |

Woodsreef State Conservation Area

Summary statistics - general

| Lindsay types | Area (hectares) | Proportion of total (%) |
|---------------|-----------------|-------------------------|
| Untyped | 331 | - |

| NSW Vegetation classification and assessment (VCA) type | NSW TSC Act ¹ | EPBC Act ² |
|---|--------------------------|-----------------------|
| VCA 588: White Box - White Cypress Pine shrubby hills open forest mainly in the Nandewar Bioregion | - | - |
| VCA 511: Queensland Bluegrass - Redleg Grass - Rats Tail Grass - spear grass - panic grass derived grassland of the Nandewar and Brigalow Belt South Bioregions | - | - |
| VCA 84: River Oak - Rough-barked Apple - red gum - box riparian tall woodland (wetland) of the Brigalow Belt South and Nandewar Bioregions | - | - |
| VCA 544: Rough-barked Apple +/- cypress pine +/- Blakely's Red Gum riparian open forest / woodland of the Nandewar and New England Tableland Bioregions | yes | yes |
| VCA 594: Silver-leaved Ironbark - White Cypress Pine shrubby open forest of Brigalow Belt South and Nandewar Bioregions | - | - |
| VCA 542: Stringybark - Rough-barked Apple - cypress pine shrubby open forest of the eastern Nandewar and western New England Tablelands Bioregions | - | - |

¹ NSW *Threatened Species Conservation Act 1995*

² Australian Government *Environment Protection and Biodiversity Conservation Act 1999*

| Native species recorded | | Number | |
|--|--|--------------------------|-----------------------|
| Flora | | 198 | |
| Fauna | | 118 | |
| Threatened species | | NSW TSC Act ¹ | EPBC Act ² |
| Scientific name | Common name | | |
| Flora | | | |
| <i>Boronia ruppia</i> | Rupp's boronia | E1 | - |
| <i>Callistemon pungens</i> | - | - | V |
| Fauna | | | |
| <i>Glossopsitta pusilla</i> | Little lorikeet | V | - |
| <i>Neophema pulchella</i> | Turquoise parrot | V | - |
| <i>Climacteris picumnus victoriae</i> | Brown treecreeper (eastern subspecies) | V | - |
| <i>Chthonicola sagittata</i> | Speckled warbler | V | - |
| <i>Daphoenositta chrysoptera</i> | Varied sittella | V | - |
| <i>Melanodryas cucullata cucullata</i> | Hooded robin (south-eastern form) | V | - |
| <i>Stagonopleura guttata</i> | Diamond firetail | V | - |
| <i>Petaurus norfolcensis</i> | Squirrel glider | V | - |
| <i>Chalinolobus dwyeri</i> | Large-eared pied bat | V | V |

| Cultural heritage - Aboriginal and non-Aboriginal | Number of sites |
|---|--------------------------|
| AHIMS registered sites | 1 |
| Heritage items or places of historic significance | No information available |

Woodsreef State Conservation Area

Summary statistics - general

| Current management plans | Status |
|-----------------------------------|------------------------------------|
| Plan of management | no |
| Fire management strategy | August 2012 |
| Regional pest management strategy | Northern tablelands region 2012-17 |

| Fire history | Prescribed burn (hectares) | Wildfire (hectares) |
|-------------------|-------------------------------|------------------------|
| 2008-09 - 2012-13 | - | - |

| Mining | Number of titles |
|-------------|------------------|
| Exploration | none |
| Application | 1 mineral |

| Apiarist sites |
|----------------|
| None |

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