

# Assessment Report

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## BELMONT RESEARCH STATION

Reporting Period: Financial Year 2021-2022



# Overview of Natural Capital

Measuring, valuing, managing, and enhancing Natural Capital is essential for building the resilience of landscapes and the future of production agriculture. AgCarE aims to assist producers build farm output, landscape resilience and financial strength by:

- Providing a framework for assessing the health of a farm – Of the co-dependent relationship between primary production and the environment on an agricultural property.
- Enable better productivity through building Natural Capital and Land condition.
- Allowing better access and ease in understanding of the emerging Natural Capital marketplace for producers giving access to ecosystem service payments.
- Improving risk profiles for rural financing/banks and other input providers.
- Building social licence and measuring industries contribution to climate goals at a producer and aggregated level.



# Vision and purpose of AgCarE

The **OPPORTUNITY** is to allow landowners and other land stewards to be recognised and financially rewarded by both domestic and international markets for maintaining and enhancing the natural environment of their landscapes while sustainably producing food and fibre for the benefit of all.

The **PURPOSE** of AgCarE is to be the vehicle that identifies and acknowledges the natural assets and management actions that support and enhance our natural environment and efficient, sustainable, and productive businesses.

The **BENEFITS** to society provided by agriculture proactively measuring natural capital condition on rural properties is far reaching. With society changing rapidly both socially and economically, most leaders are reactive. In doing so, uninformed statements are made, unwarranted pressure placed on agriculture. AgCarE, industry written, can empower producers, to be the leaders of agriculture, to bring reassurance to consumers, and to expose those who continue to condemn our industry.

The **VALUE PROPOSITION** to landholders is the ability to monetise natural capital. This requires customers (or end users) who are willing to pay for the AgCarE product and markets (or functions) that value the AgCarE product for specific use cases. Examples of specific use cases are reduced interest rates from banks, access to funding (e.g. drought funding), reductions in leasehold land rates, or pathways to carbon, biodiversity and nature repair markets.

The **VALUE PROPOSITION** to agricultural industry is the importance of data – providing industry with the key power for controlling and influencing outcomes for ag landowners and businesses.

The AgCarE Assessment Report provides you with your natural capital baseline result.



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## LANDHOLDER / PROPERTY DETAILS

Name/s: AgForce

Business Name: AgForce Queensland Farmers

ABN or ACN: 57 611 736 700

Property Name: Belmont Research Station

Property Address: 887 Etna Creek Road  
ETNA CREEK Qld 4702

Email: agforce@agforceqld.org.au

Phone: 07 3236 3100

Lot on Plans: 1054LIV40364, 10SP142291, 118LN284, 144LN1562, 1664LIV40479, 1666LIV40480, 1877LIV40626, 1RL5724, 1RP601603, 2197LIV40813, 2RP610451, 3RP601603, 4RP601603, 5RP601603, 6RP601603, 7RP601603, 8RP601603, DRP835031

Property Size (ha): 3645

LGA: Livingstone Shire

## AGRICULTURAL DESCRIPTION

### Livestock

Seedstock - BEEF

Breeding - BEEF

Sheep (MEAT)

Sheep (WOOL)

Feedlot - BEEF

Backgrounding - BEEF

Intensive Livestock

Goats

### Farming

Grains, Pulses & Oilseeds

Sugar

Cotton

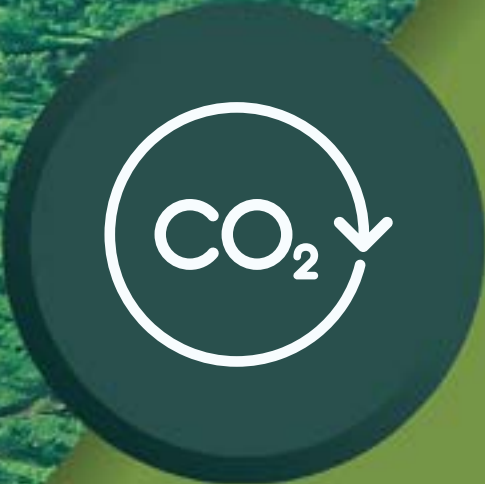
Horticulture

Forestry

### Further details

All cattle on property are on agistment.





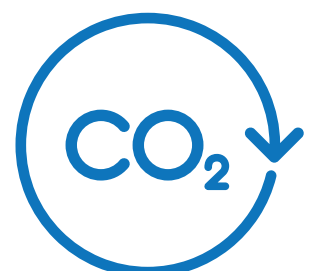
# CARBON BALANCE

# Carbon Balance:

If the Carbon Total Net GHG result is a negative you are sequestering carbon, if the result is a positive you are emitting.

The result is calculated using the Food and Agriculture Organisation of the United Nations (FAO) Ex-Act Carbon Balance Model with your carbon inputs, fuels, livestock etc, and the Queensland government's Foliage Projective Cover Avoided Clearing (AC) data .

The result is a guide only, especially the AC calculation.





# CARBON RESULTS

Property Name	Belmont	Climate	Tropical Dry
Soils	HAC	Total Area (ha)	3,645

## ENERGY USAGE

[POSITIVE = emitting | NEGATIVE = sink]

Description	All GHG TC02 eq	Per Year	Balance TC02/eq
Electricity	1	1	1
Diesel	16	16	16
Petrol	8	8	8
Gas (LPG or Natural)	1	1	1

## FERTILISER & PESTICIDES

[POSITIVE = emitting | NEGATIVE = sink]

Description	All GHG TC02 eq	Per Year	Balance TC02/eq
Herbicides	1	1	1
Insecticides	1	1	1

## CROPPING - ANNUAL & PERENNIAL

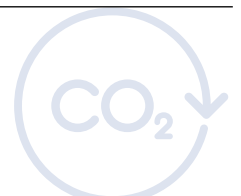
[POSITIVE = emitting | NEGATIVE = sink]

Description	All GHG TC02 eq	Per Year	Balance TC02/eq
Leucaena	-263	-263	-263

## LIVESTOCK

[POSITIVE = emitting | NEGATIVE = sink]

Description	All GHG TC02 eq	Per Year	Balance TC02/eq
Beef cattle	1,928	1,928	1,928
<b>Sub - Total ( TC02 eq)</b>			<b>1,693</b>



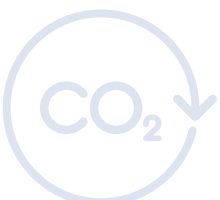
**CARBON RESULTS CONT.**

[POSITIVE = emitting | NEGATIVE = sink]

	ha	Balance TC02/eq
Potential Avoided Clearing		-22,134
Potential Human Induced Regeneration		-8,018
	<b>Potential Total Carbon Abatement</b>	<b>-30,152</b>
	<b>Total Net GHG (TC02 eq)</b>	<b>-28,459</b>
	<b>Total Net GHG (TC02 eq)/ Per ha</b>	<b>-7.8</b>

**Comments:**

SAMPLE





# ECOLOGICAL VALUES

# Ecological Values:

Identifies and measures your property's ecological values:

- Protected flora, fauna and ecosystems both State and Federal
- High priority catchments (GBR)
- Vegetation status both Remnant and Non-remnant
- Water features – wetlands and watercourses and stresses i.e. drought
- In State and Federal environmental protection legislation; VMA, NCA and EPBC.



## ECOLOGICAL VALUES RESULTS

Property Name	Belmont	Climate	Tropical Dry
Soils	HAC	Total Area (ha)	3,645
Address	887 Etna Creek Road, ETNA CREEK Qld 4702		
Description	Very high ecological values – containing substantial potential carbon areas and biological offset areas		
Climate Stressor	Property is located in a drought declared LGA (greater than 2 years)		

### VEGETATION MANAGEMENT RESULTS

Wetlands **PRESENT**

**PRESENT**

- Essential Habitat (EVNT)
- Curlew Sandpiper (CE)
  - Estuarine Crocodile (V)
  - Fitzroy River Turtle (V)
  - Southern Snapping Turtle (CE)
  - Squatter Pigeon (V)

**PRESENT**

- Threatened Ecological Communities
- Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions
  - Littoral Rainforest and Coastal Vine Thickets of Eastern Australia
  - Semi-evergreen vine thickets of the Brigalow Belt (North and South) and Nandewar Bioregions

Refer to your AgCarE maps generated for this property.





SAMPLE

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# **SUSTAINABLE MANAGEMENT**

# Sustainable Management:

Identifies and measures those activities on property that relate to good governance – in accordance with National and International Environment, Social and Governance (ESG) Goals.



Sustainable management rating:

**Above Average** achievement 58/80 (**72.5%**)





# SUSTAINABLE MANAGEMENT RESULTS

## LEGAL COMPLIANCE

Score:

5/5

Ranking:

HIGH



Comments:

MLA updates, AgForce emails, National & local news

## FINANCIAL STABILITY

Score:

5/5

Ranking:

HIGH



Comments:

Property is owned by an organisation and all records must be kept.



**AGRIBUSINESS MANAGEMENT**

Score:

5/5

Ranking:

HIGH



Comments:

Keep up to date via internet and E-learning. All service and maintenance records are kept

**FORMAL VEGETATION/BIODIVERSITY ASSESSMENT**

Score:

0/5

Ranking:

NIL



Comments:



**SOIL HEALTH**

Score:

5/5

Ranking:

HIGH



Comments:

Added contours to roadways, filled in washouts in gullies with rock & gravel. Soil types are recorded on Phoenix

**BIODIVERSITY MANAGEMENT**

Score:

2/5

Ranking:

LOW



Comments:

Riparian areas have been fenced off to promote natural regeneration. Lantana, Giant Rats Tail Grass, Parkinsonia and other weeds treated regularly.



**WATER QUALITY & MANAGEMENT**

Score:

5/5

Ranking:

HIGH



Comments:

River levels are monitored during wet periods & drought and recorded in a diary.

**DROUGHT MITIGATION & MANAGEMENT**

Score:

5/5

Ranking:

HIGH



Comments:

Use both government and non-government sites to monitor weather predictions. Stock numbers are reduced during drought.



**CERTIFICATIONS & ACCREDITATIONS**

Score:

0/5

Ranking:

NIL



Comments:

**PLANNING & MANAGEMENT SYSTEMS**

Score:

5/5

Ranking:

HIGH



Comments:

Control of feral animals is ongoing. Skip bin for rubbish, old steel recycled, batteries recycled. Cloud based property plan is maintained.



**FUEL/CHEMICAL USE & STORAGE**

Score:

5/5

Ranking:

HIGH



Comments:

Fuel is stored in overhead bunded tanks, refuelling is carried out on concrete slab. Onsite training at time of induction. Staff have ChemCert accreditation.

**ENERGY SAVINGS**

Score:

0/5

Ranking:

NIL



Comments:



**WASTE MANAGEMENT**

Score:

3/5

Ranking:

AVERAGE



Comments:

**LABOUR CONDITIONS**

Score:

5/5

Ranking:

HIGH



Comments:



**WORKPLACE HEALTH & SAFETY**

Score:

5/5

Ranking:

HIGH



Comments:

Staff undertake training as required. First aid kits in all buildings and vehicles.

**LOCAL COMMUNITY**

Score:

3/5

Ranking:

AVERAGE



Comments:

Involved in on property research with CQU.





Sustainable Management Module  
**ABOVE AVERAGE  
ACHIEVEMENT**



This certifies that

# **BELMONT RESEARCH STATION**

completed the AgCarE Sustainable Management Module  
and received a score of 58/80 (72.5%) - Above Average Achievement Rating

Benn Knott, Assessor



October 12<sup>th</sup> 2022



SAMPLE

*Blank*





**COMMODITIES**

# Commodities:

AgCarE commodity modules assesses the management of your commodities.

Commodities available are:

- Beef
- Cane
- Grain
- Sheep (meat)
- Sheep (wool)



BEEF RATING:

**High** Achievement 36/40 (90%)

# BEEF RESULTS

Seedstock

Breeding

Feedlot

Backgrounding

900

Total number of head

3,645

Total grazed area (ha)

## BREEDING

Score:

5/5

Ranking:

HIGH



Comments:

Smaller bulls are used for the first mating with heifers to lower the risk of calving difficulties. Because of calving data collection cows are checked every day during calving. Stocking rates have been reduced resulting in higher growth and weaning weights.

## ANIMAL HUSBANDRY & MANAGEMENT

Score:

5/5

Ranking:

HIGH



Comments:

All breeders are preg tested and empties are culled. Bulls are semen tested prior to mating. All stock are recorded on a Gallagher TSI, Records of all treatments Including weights, traits and birth information are recorded.



## GRAZING METHODS & MANAGEMENT

Score:

5/5

Ranking:

HIGH



Comments:

Different paddocks are used for breeding, calf data collection and growing cattle each year this is due to research requirements. As regrowth timber is increasing stocking numbers have been reduced to maintain adequate feed and ground cover

## PASTURE TYPE & MANAGEMENT

Score:

3/5

Ranking:

AVERAGE



Comments:

Quadrats are cut at the change of each season and pasture is also monitored weekly. A large assortment of dung beetles live on the property.



**PASTURE GROUNDCOVER MONITORING & MANAGEMENT**

Score:

5/5

Ranking:

HIGH



Comments:

Quadrats are cut at the change of each season and pasture is also monitored weekly. CQU use satellites to monitor the property

**FEED ADDITIVES & MANAGEMENT**

Score:

4/5

Ranking:

ABOVE AVERAGE



Comments:

Cattle are given Anipro wet lick during drought.



**DROUGHT MANAGEMENT**

Score:

4/5

Ranking:

ABOVE AVERAGE



Comments: Weaner bulls sent to feedlot

**MEMBERSHIP/ACCREDITATION**

Score:

5/5

Ranking:

HIGH



Comments: MLA - MSA





BEEF MODULE

HIGH ACHIEVEMENT



This certifies that

# BELMONT RESEARCH STATION

completed the AgCarE Beef Module  
and received a score of 36/40 (90%) - High Achievement Rating



Benn Knott, Assessor



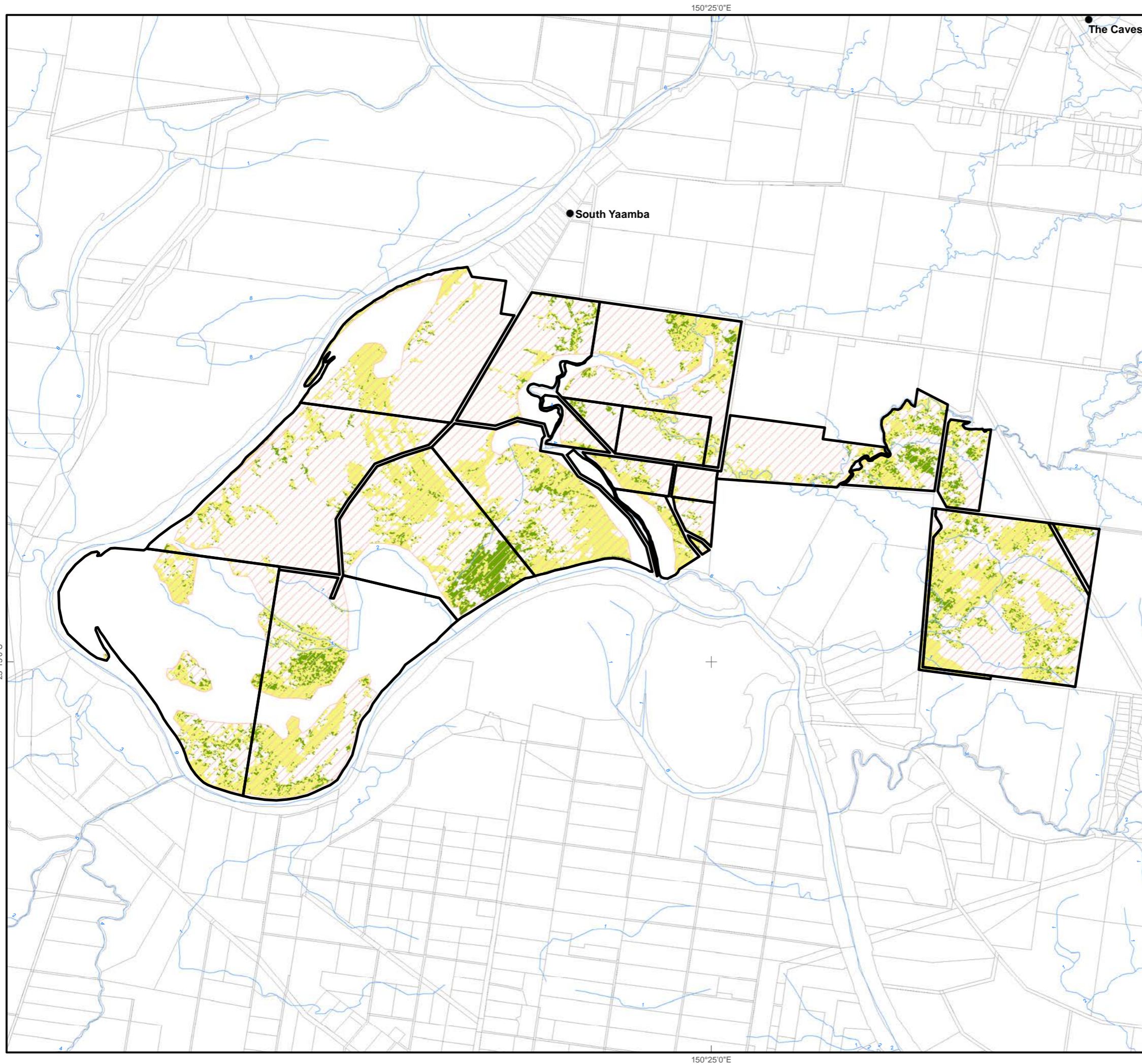
October 12<sup>th</sup> 2022

# **Appendices: Property Maps and Reports**



SAMPLE





# Carbon Farming Opportunities

- Legend**
- Towns
  - VMA Watercourses (labelled with stream orders)
  - Cadastre Line
  - ▭ Property Extent
  - ▨ Regulated Vegetation Non-Remnant
- Queensland Woody Foliage Projective Cover 2019**
- Human Induced Regeneration (approx 188 ha)
  - Avoided Clearing (approx 737 ha)



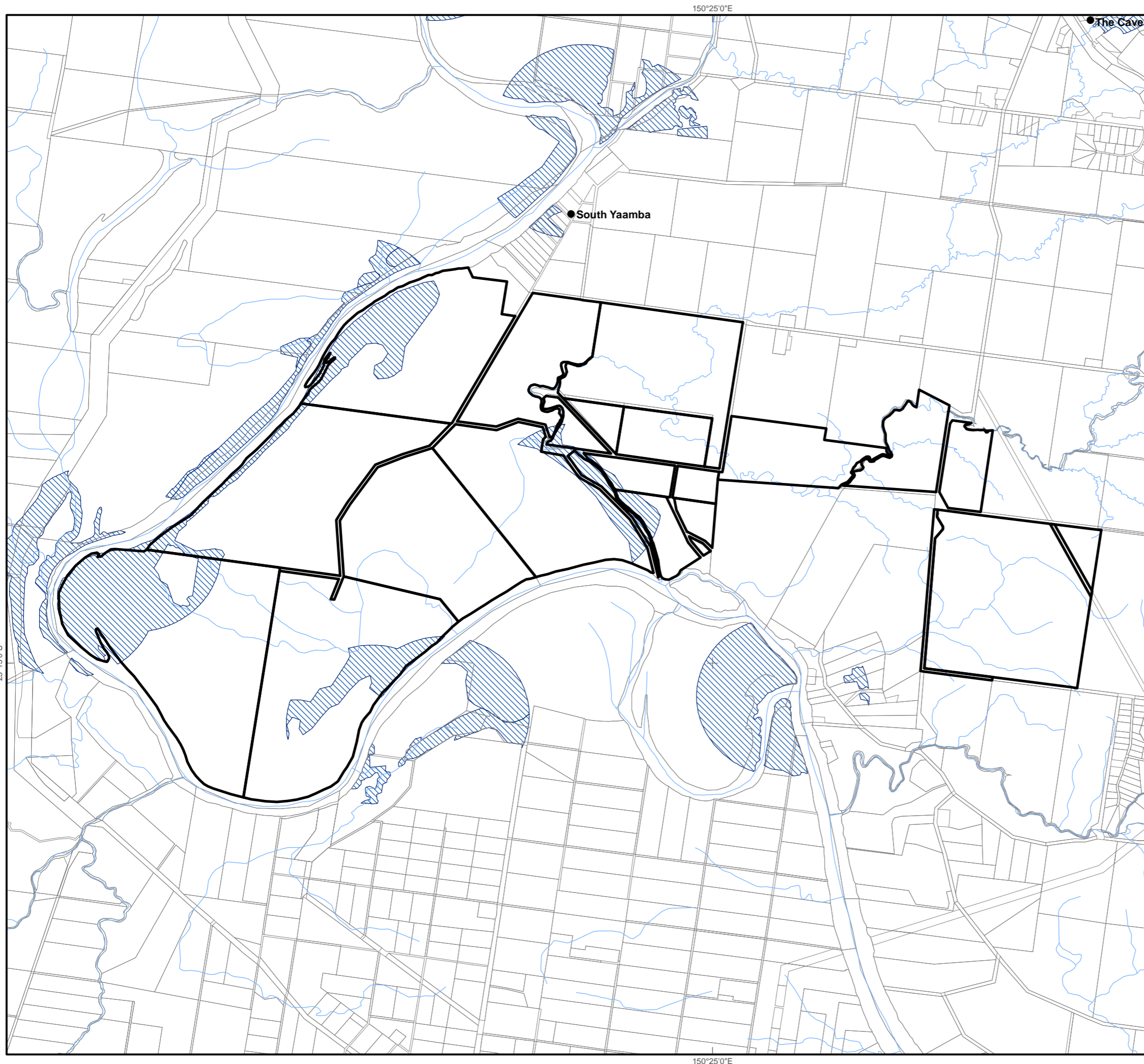
AgForce No: 27047  
 Property Name: Belmont Research Station  
 Commodities: Beef

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Horizontal Datum.....Geocentric Datum of Australia 1994 (GDA94).

All datasets are updated as they become available to provide the most current information as of the date shown on this map.





# Essential Habitat

- Legend**
- Towns
  - VMA Watercourses
  - Cadastral Line
  - ▭ Property Extent
  - ▨ Essential Habitat



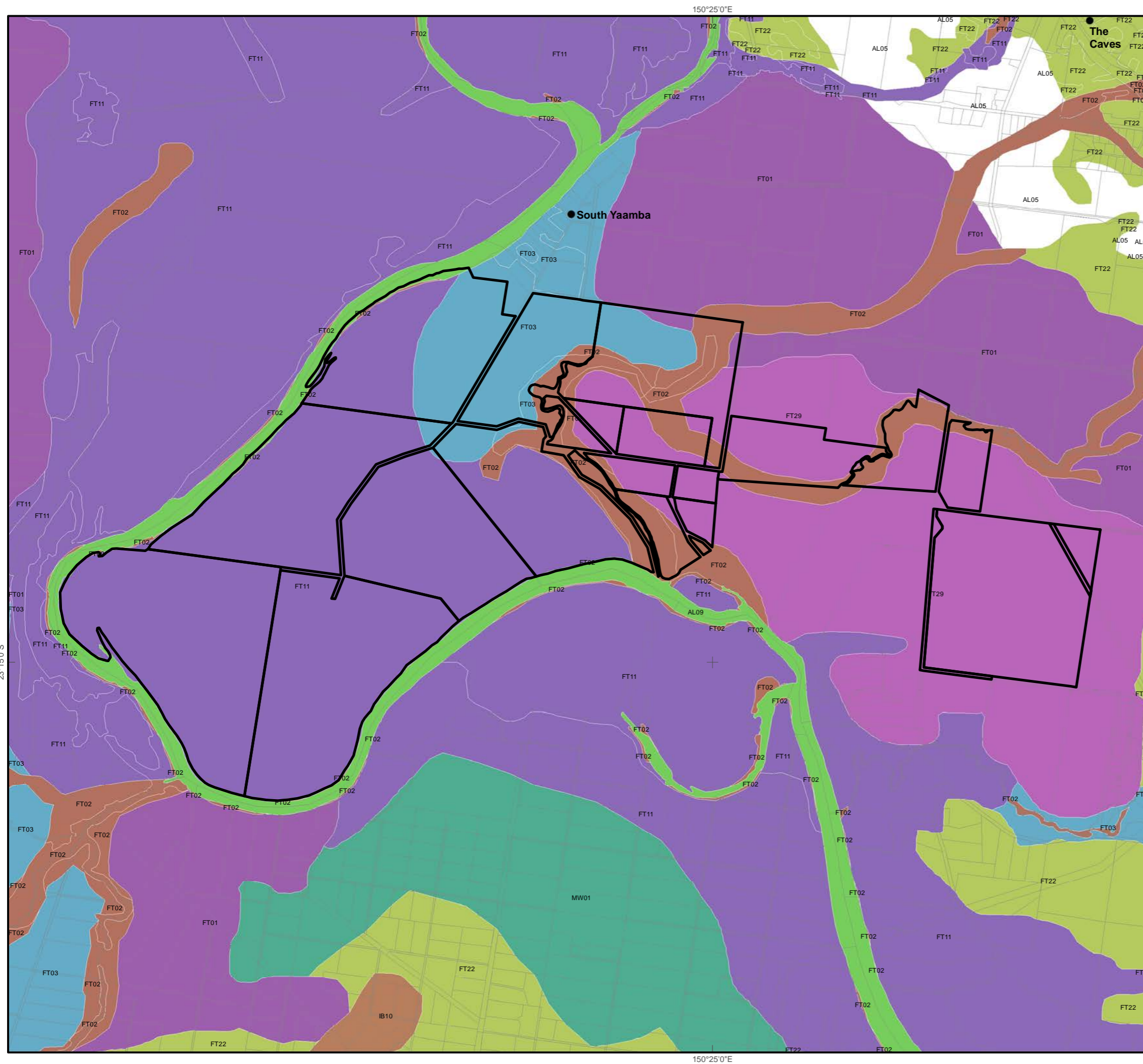
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# GLM Land Types

## Legend

- Towns
- ▭ Cadastre Line
- ▭ Property Extent
- GLM Land Types**
- AL09, Water
- FT01, Alluvial brigalow
- FT02, Blue gum / river red gum flats
- FT03, Box flats
- FT11, Coolibah floodplains
- FT22, Narrow-leaved ironbark woodlands
- FT29, Softwood scrub
- IB10, Ironbark and bloodwood on non-cracking clay
- MW01, Alluvial flats and plains



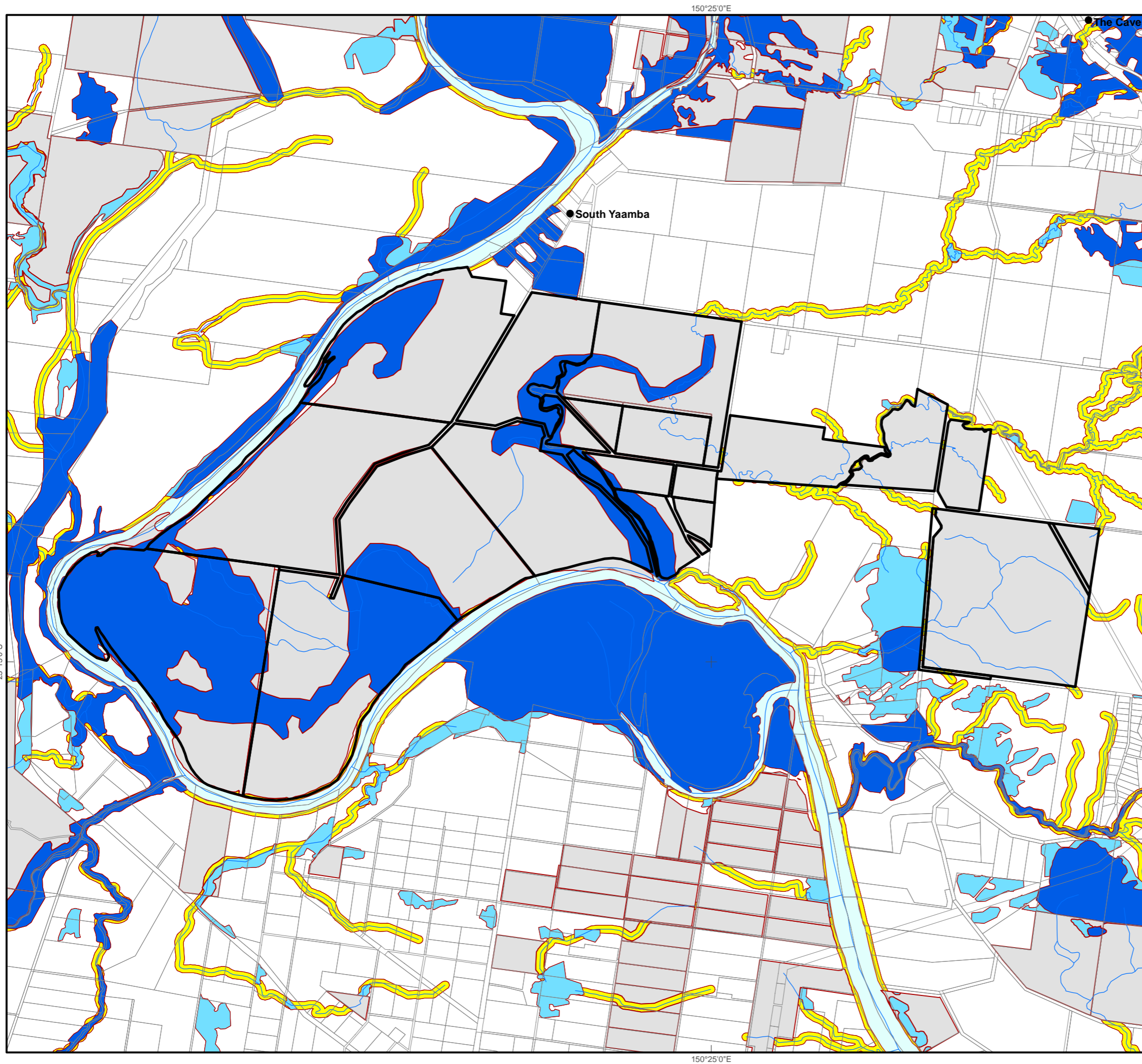
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# PMAV and Regulated Vegetation

- Legend**
- Towns
  - VMA Watercourses
  - Cadastre Line
  - ▭ Property Extent
  - Regulated Vegetation**
  - Category A area
  - Category B area
  - Category C area
  - Category R area
  - Category X area
  - Area not categorised
  - Water



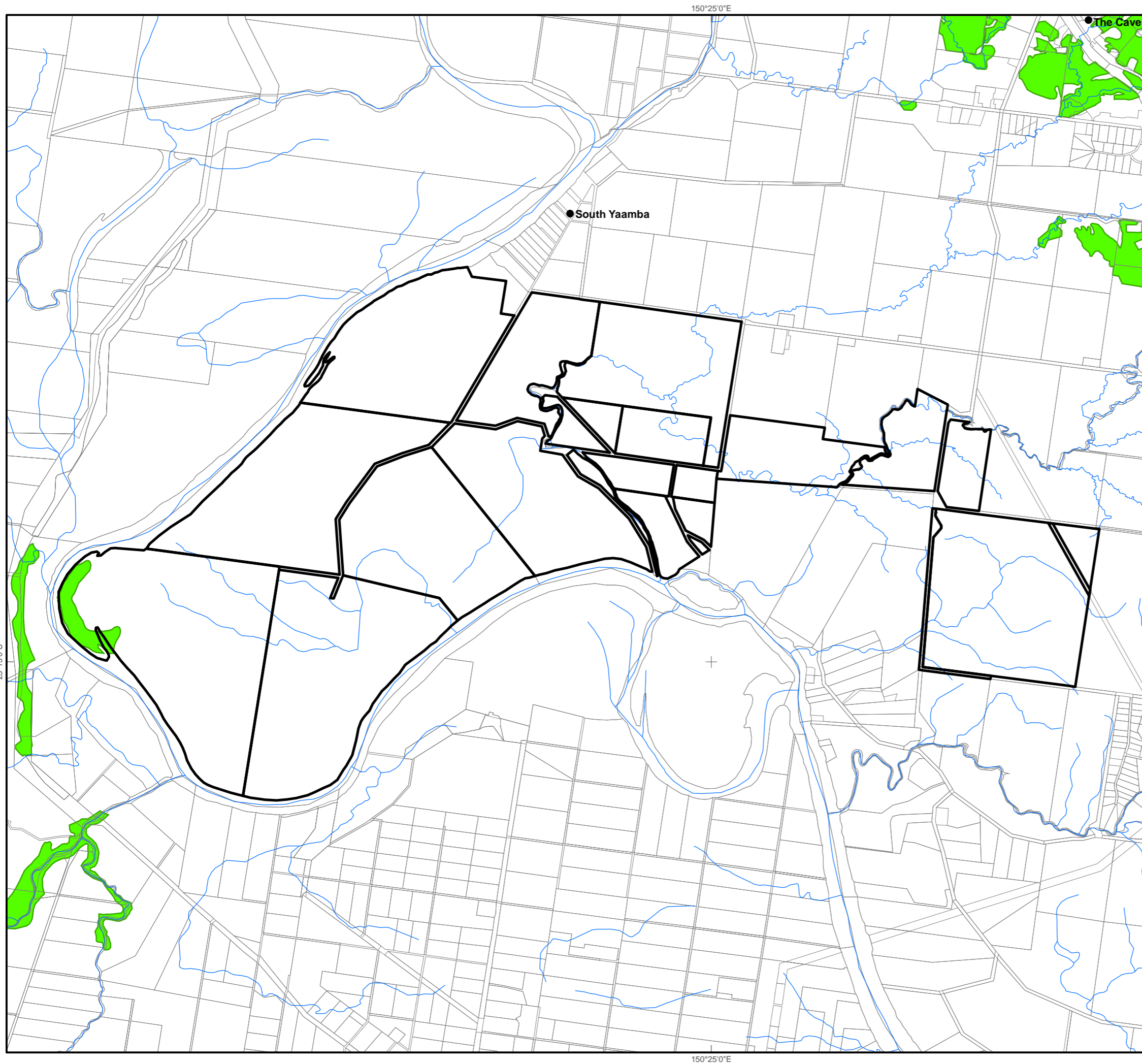
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# Protected Plants

- Legend**
- Towns
  - VMA Watercourses
  - Cadastre Line
  - ▭ Property Extent
  - High Risk Area



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 Property Name: Belmont Research Station  
 Commodities: Beef

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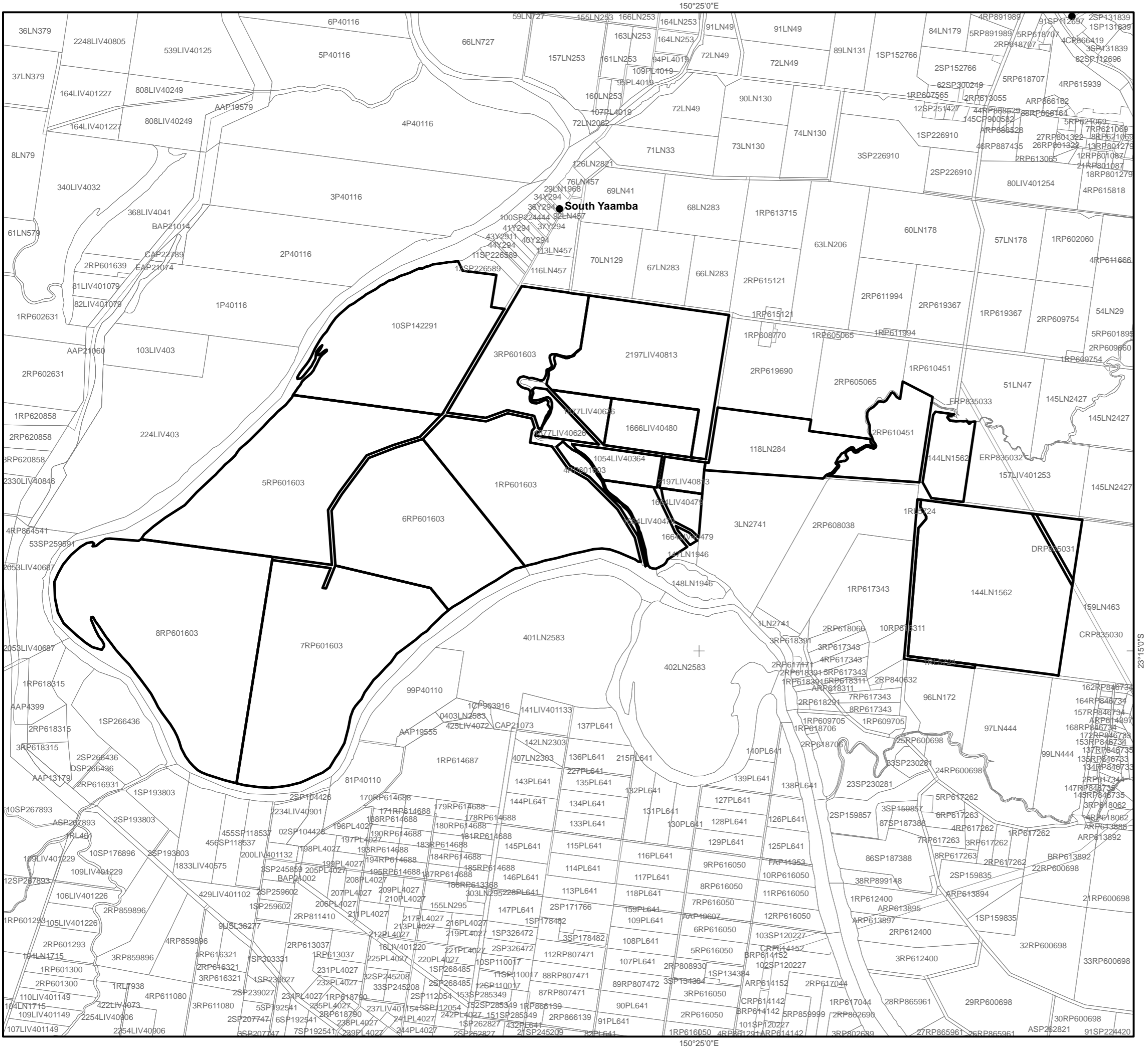
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Property Extent

- Towns
- ⊕ Cadastre Line
- ▭ Property Extent



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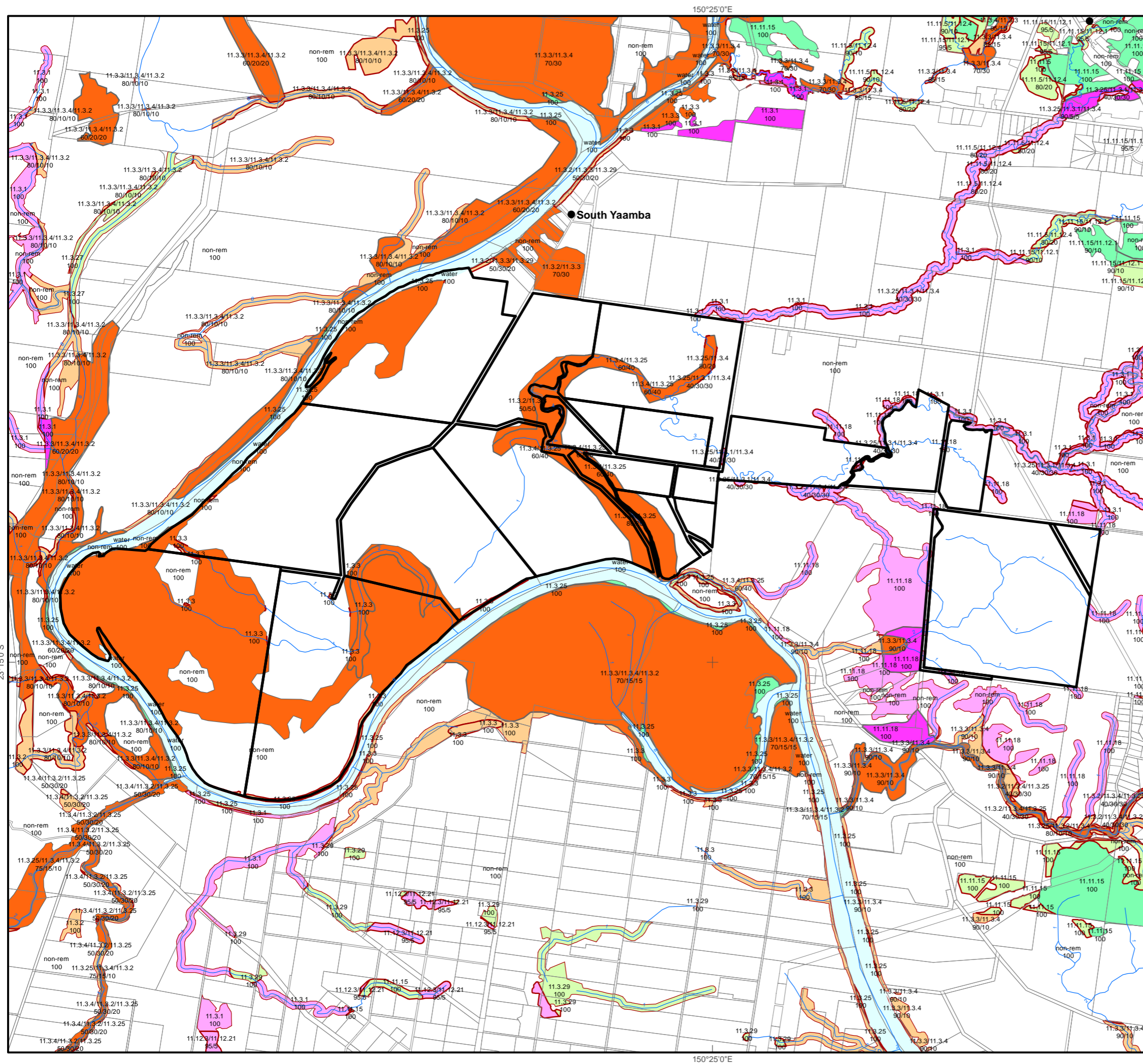
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# Regional Ecosystem



- Legend**
- Towns
  - VMA Watercourses (labelled with stream orders)
  - Cadastre Line
  - ▭ Property Extent
- Regional Ecosystem**
- Category A or B containing endangered
  - Category A or B containing of concern
  - Category A or B that is of least concern
  - Category C or R containing endangered
  - Category C or R containing of concern
  - Category C or R that is of least concern
  - non-remnant
  - Water



AgForce No: 27047  
 Property Name: Belmont Research Station  
 Commodities: Beef

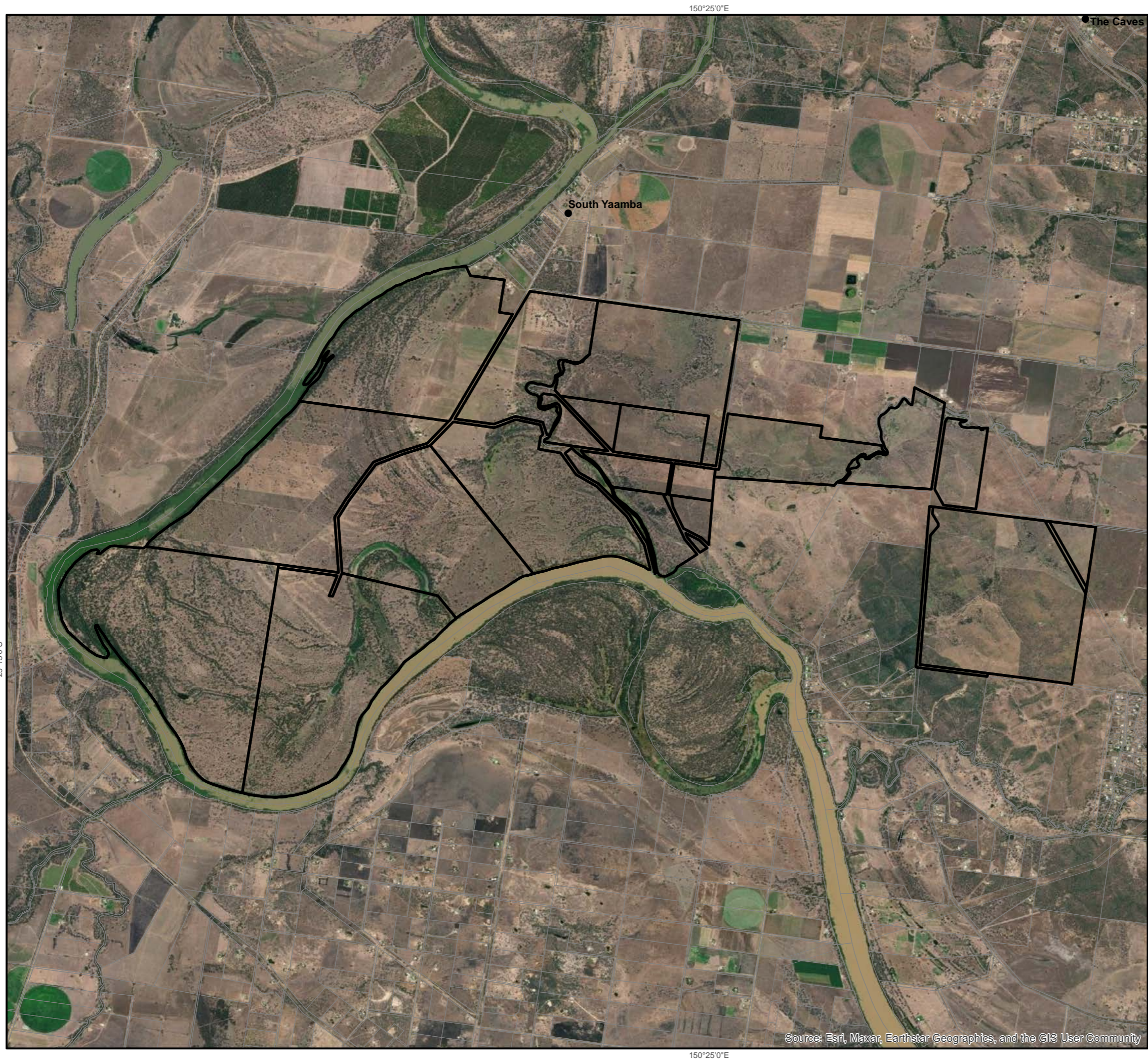
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Produced by AgForce Queensland  
 03 October 2022





# Satellite Image Map

Image Date - 25 September 2021

## Legend

- Towns
- ▭ Cadastre Line
- ▭ Property Extent

N



AgForce No: 27047  
 Property Name: Belmont Research Station  
 Commodities: Beef

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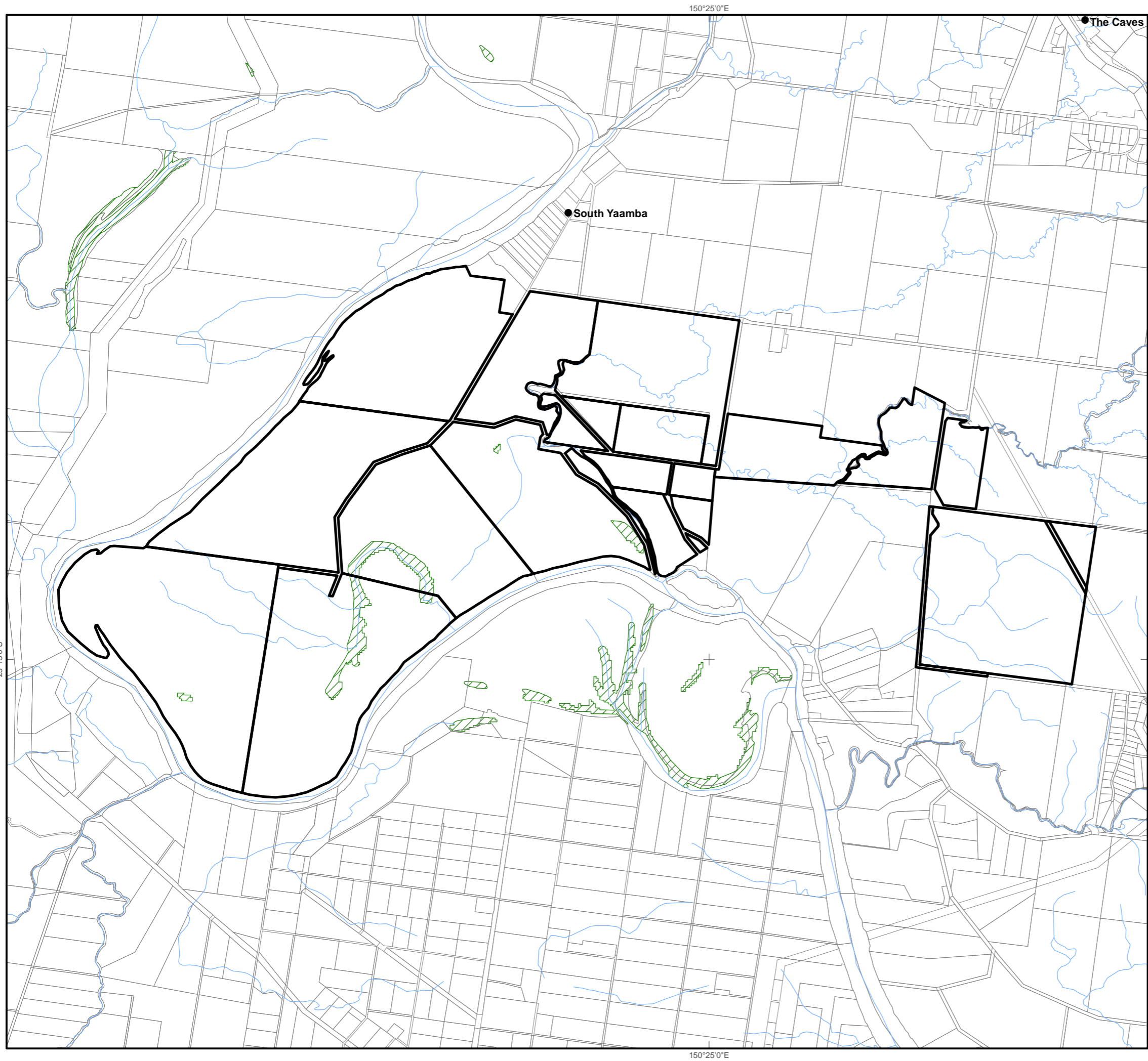
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Image source: LandViewer EOS (Sentinel 2)

Produced by AgForce Queensland  
 03 October 2022





# Wetlands

- Legend**
- Towns
  - VMA Watercourses
  - Cadastral Line
  - ▭ Property Extent
  - ▨ Wetlands



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 03 October 2022





[www.agcare.org.au](http://www.agcare.org.au)

SAMPLE





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