

1. DETAILS

Forest Management Plan Details

Name:	Stoiche		
Address	Barber Road		
Locality:	Ringbark	Nearest town:	Manjimup
Local Government Authority:	Shire of Manjimup		
Local Fire Brigade:	Ringbarkers		

Owner's Details

Name:	Cultura Australia Pty Ltd		
Primary Contact Number:			
Email:			
Address:	Level 9, Mia Yellagonga Tower 2, 5 Spring St, Perth		
Postcode:	6000	Country:	Australia

Agent's Details

Organisation:	Delta Forestry Pty Ltd		
Primary Contact Number:			
Email:			
Address:	33 Headstay Cove, Geographe		
Postcode:	6280	Country:	Australia

2. CODE OF PRACTICE PROTOCOL COMPLIANCE¹

Protocol Criteria	Recommended Content	Check
Plantation Map:	<p>A map of the plantation should provide the following:</p> <ul style="list-style-type: none"> • plantation manager details; • an area statement showing plantation categories and areas; • a locality plan and access roads; • cadastral information; • known environmental and OHS hazards; • improvements: • buildings; • roads, tracks, firebreaks, bridges, creek crossings; • fences, gates, utilities, water points; • natural features: • watercourses and wetlands; • areas of native vegetation; and • significant values. 	Complies.
Establishment Plan:	<p>This should outline the following topics and how they are to be managed:</p> <ul style="list-style-type: none"> • areas of native vegetation and significant values; • setback distances to watercourses, wetlands, reservoirs and significant values; • statutory setback distances to dwellings and gazetted infrastructure; • management of harvest residue; • control of declared animals, declared plants and other pest plants; • areas to be planted, compartment sizes; • species to be planted; 	Complies.

¹ The Code states “A plantation management plan is prepared to provide relevant information in respect of the way in which plantations are developed and managed, and to demonstrate the means by which the principles of environmental care, cultural, heritage social and economical management objectives are achieved. Plantation management plans are dynamic documents and may change from time to time as a result of new information, new or revised laws, or for strategic or operational imperatives. Plantation management plans are recommended content; however land managers/owners and/or plantation owners may have other requirements.”

	<ul style="list-style-type: none"> • direction of planting lines in relation to contours and natural drainage; • description of soil preparation methods; • pest and weed control prescription; • planting prescription; • access and firebreaks • fertilising prescription; • sensitive neighbours; • sensitive property; and • security management 	
Maintenance Plan:	<p>This should outline the following management activities to be conducted during the rotation of the plantation and how they intend to be managed:</p> <ul style="list-style-type: none"> • native vegetation management; • pruning and thinning regimes; • control of declared animals, declared plants and other pest plants; • weed and pest control prescription; • fertilising prescription; • access and firebreak maintenance; • grazing strategy; • inventory; • bio-security issues; • infrastructure maintenance; and • significant feature management. 	Complies.
Fire Management Plan:	<p>The fire management plan should contain the following details:</p> <ul style="list-style-type: none"> • Plantation manager’s telephone numbers; • names and addresses of local fire control agencies; • locality plans showing access roads, firebreaks, water points etc.; • methods of access and firebreak maintenance; • specific measures to protect services (e.g. power lines and gas pipelines); • a fire fighting equipment register for the locality and details of cooperative arrangements; • direction indicators to water points, road signs and other features; • details of coordination and cooperation between plantation managers, local 	Provided separately.

	<p>government authorities, local volunteer fire brigades, State agency in fire prevention, detection and suppression activities.; and</p> <ul style="list-style-type: none"> • a fuel reduction program, if applicable. 	
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3. PURPOSE

The purpose of this forest management plan (**Plan**) is to outline the key features and characteristics of the property and document the sustainable forest management practices to be utilised in undertaking the development and ongoing management.

4. SCOPE

The Plan has been developed in accordance with the Code of Practice for Timber Plantations in Western Australia (**Code**) and the Department of Fire and Emergency services (DFES) Guidelines for Plantation Fire Protection (**Guidelines**). The Plan is specific for the property and any surrounding areas detailed within. The scope of use shall include but not limited to site preparation, plantation establishment, ongoing management, thinning and clear fell harvest of a softwood *Pinus radiata* pine plantation.

5. PROPOSED DEVELOPMENT

The establishment and harvesting of a *P. radiata* softwood plantation to supply forest products to domestic and international markets. The Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) reported in its 'Australian plantation statistics 2023 update', that Australia's total plantation area had decreased by 15% (304,200 hectares) between 2008–09 and 2021–22. Over the same period, Western Australia's plantation estate decreased by 134,469 hectares (contributing to 44% of the national decrease).

As a result of the reduction in plantation area and the under investment in plantation development reported by ABARES, the Australian Forest Products Association (AFPA) and Master Builders Australia (MBA) are predicting a 250,000

timber house frame supply gap by 2035². Furthermore, in Western Australia, AFPA and MBA are expecting a supply gap of 40,855 timber house frames - the number of house frames to build a city the size of Bunbury. AFPA and MBA predict Australia will need to increase the area of plantations by 400,000 ha to meet the looming national supply deficit. The 400,000 ha represents one tenth of one percent of the land used for agriculture in Australia and is essentially replacing the plantation area which has been recently lost during the period between 2008–09 and 2021–22 reported by ABARES. The development will also contribute to Australia reducing greenhouse gas emissions by 43% below 2005 levels by 2030 and achieving net zero emissions by 2050 by sequestering carbon in trees, soil, and forest products.

6. PROPERTY DESCRIPTION

Planning	
Title Information:	Lot 6196 on Deposited Plan 225713 Lot 4156 on Deposited Plan 135276
Address:	Barber Road, Manjimup
Planning Scheme:	Shire of Manjimup Scheme No. 4
Planning Zone:	General Agriculture
Planning Overlays:	Public Drinking Water Supply Area
Existing Land Use:	Grazing livestock
Proposed Use:	Plantation

The plantation is located in the General Agriculture zone in the Shire of Manjimup and is surrounded by other extensive primary production land uses (see Attachment 1&6). The plantation setbacks are designed to minimise the risk of any adverse impact to surrounding land uses. In determining the setbacks in this Plan, we have considered the risk of bushfire, off-site movement in the use of chemicals/fertilisers, and encroachment of machinery into sensitive areas (refer Attachment 2).

Furthermore, there are additional measures which can be taken to minimise the

² https://ausfpa.com.au/wp-content/uploads/2022/08/220804_250000_house_frames_short_by_2035_new_report_confirms_looming_cliff_without_new_plantings_.pdf

risk of bushfire and any adverse impacts to surrounding land uses such as operational planning, standard operating procedures, training and competency assessments, supervision, and buffers.

Plantation Design Setbacks	
Public Roads:	15 m minimum
Title Boundary:	15 m minimum
Compartment Boundary:	6 m minimum
Remnant Vegetation:	6 m minimum
Watercourses:	6 m minimum
Dwellings	100 m minimum
Buildings	50 m minimum
Powerlines	20 m minimum

7. SITE DESCRIPTION

The property lies within a high rainfall area which combined with the flat to gentle slopes and soils found on the property gives the property a low-moderate erosion risk rating³. Nonetheless, planting and cultivation will be aligned off contour to slow the rate of fall and accumulation of water where required (refer Attachment 7a&b).

Site Features	
Mean Annual Rainfall:	845 mm
Geology:	Granite and gneiss
Land Units:	Corbalup subsystem, Collis subsystem, Yarnup subsystem
Soils:	Sandy and loamy gravels, deep sands and sandy duplexes
Topography:	Flat (0-5%)
Catchment	Warren

Biodiversity and Conservation Values

There are limited to no areas with biodiversity and conservation value (refer

³ 1A Method of Assessing Water Erosion Risk in Land Capability Studies – Swan Coastal Plain and Darling Range. Resource Management Technical Report No.73: 1998. Department of Agriculture Western Australia.

Attachment 3).

The property resides in the Warren River catchment which is a highly degraded river in poor health. The Warren River has high salinity due to extensive clearing for agriculture. The establishment of a plantation in the Wilgarrup River subcatchment will help improve the salinity and water quality of the Warren River and aid in its recovery plan.

Biodiversity and Conservation Features	
Vegetation Types:	Medium to tall marri and jarrah forests
Threatened Species:	Western Ringtail Possum
TEC ⁴ :	Nil
Vegetation Condition:	Good to poor

Water Management

The property resides in the Wilgarrup River subcatchment which feeds into the Warren River. Surface water interception and water usage by a deep-rooted, multi-rotation plantation forest (including firebreaks, buffers and setbacks) will be commensurate with the native vegetation which previously occupied the site. The clearing of the land for agriculture has increased the level of surface water that reaches the waterways. While there are some benefits of increased flow rates with land clearing, it comes with trade-offs such as elevation of water tables, salinisation, erosion and the runoff of sediment, nutrients and other pollutants into waterways and rivers. Carefully prepared and managed, the plantation will moderate surface water flow towards waterway systems via drainage or cultivation which will fall at 1:100 or 1% (refer Attachment 4).

Water Management

The use of chemicals on the property are regulated by the Australian Pesticides and Veterinary Medicines Authority. Chemical use is in accordance with the label rates and applied by licenced and appropriately qualified contractors.

Our chemical use within the plantation is generally limited to the first 18 months of the plantation and targeted to the planting strip. For example, for commonly

⁴ Threatened ecological community.

used chemical in forestry plantations and canola cropping, the plantation use is less than 1% when compared to canola over a full rotation. The setbacks and buffers in the Plan take into consideration the low level of chemical input and the ground-based, targeted nature of their application.

The short rooted annual pasture species on the property are subject to annual inputs of phosphorus and nitrogenous fertilisers. Trees have developed mechanisms quite different to short-rooted annuals to deal with pulses of nutrient availability (e.g., deep roots, internal storage processes for nutrient uptake over and above their requirements, mycorrhizal associations) and nutrient cycling in plantation forests is highly conserved unlike short-rooted annual species found in cropping and pasture systems (i.e., limited export of nutrients off site).

Soil and foliar tests will be undertaken to determine the requirement for any fertiliser applications to remediate any nutrient deficiencies or imbalances. The plantation industry in conjunction with leading forest scientists have developed novel decision support tools to guide nutrition management in plantations. Given the property’s recent history, it is expected there will be no requirement to use any fertiliser at establishment or during maintenance of the plantation. Nonetheless, whilst remote, the Plan assumes fertiliser may be applied during the plantation’s life cycle, and such the buffers and setbacks set out in Attachment 5 are designed to minimise the risk of any potential offsite movement, especially to the local swamps. No chemicals or fertilisers will be stored at the property.

Cultural Heritage

Cultural Heritage Features

Representatives:	South West Aboriginal Land and Sea Council
ILUA ⁵ :	South West Boojarah #2
Regional Corporation:	Karri Karrak

No records of cultural heritage have been found and are aware of our obligations under the *Aboriginal Heritage Act 1972*.

⁵ Indigenous Land Use Agreement

Stakeholders and Land Use

Neighbouring stakeholders are listed below. Delta Forestry maintains a database of neighbours which will be used for the communication and management of sensitive operations (e.g., aerial spraying, vermin control, harvesting). For privacy reasons, names and contact details of private residence have been omitted.

Stakeholders		
Property identification	Contact	Land use
27390 South Western Highway, Ringbark		Grazing
27306 South Western Highway, Ringbark		Forest
270 Kimber Road, Ringbark		Grazing
19 Luke Road, Ringbark		Grazing
Lot 6197 Barber Road, Ringbark		Grazing

Forest Description

Forest Area Statement (ha)	
Plantation:	82
Native Vegetation:	10
Buffers and Water Courses:	6
Firebreaks and Tracks:	12
Dams:	5
Total:	115

8. SILVICULTURE AND MANAGEMENT REGIME

Regime		
Measure	Un-thinned	Thinned
Type:	Pulp/house frame	House frame
Species:	<i>P. radiata</i>	<i>P. radiata</i>
Initial Stocking:	800 stems/ha	1,100 stems/ha
Thinning Year:	None.	10-14
Clear Fell Year:	25-30	20-30

Many management activities are reactive and therefore not determined by a prescriptive schedule in a long-term forest management plan (as described in the following management plan). To cope with the reactive nature of operations, planning is broken down into the following categories:

- long-term or strategic plans (20+ years horizon);
- tactical plans (3-5 year horizon); and
- operational plans (1 year horizon).

The level of detail in operational planning increases as the planning horizon becomes less. The Plan is considered a long-term or strategic plan and does not have the specificity of an operational plan.

Management schedule		
Activity	Year	Description
Road Infrastructure:	<1	Where possible, existing access points and roads will be used to minimise disturbance. Where required, new access points and roads will be established to allow for the safe access and egress through the plantation.
Weed Management:	<2	Generally, occurs in the first 18 months of plantation establishment, weeds will be managed to minimise competition within the tree crop using appropriately qualified organisations and operators and will comply with the Australian Pesticides and Veterinary Medicines Authority regulations. Firebreaks may be sprayed annually using the same techniques.
Site Preparation:	<1	Planting lines will be designed to follow closely to the contour at 4 m intervals using either rip/mound or straight rip soil amelioration techniques. Site preparation is required to optimise tree growth.
Planting:	<1	Seedlings will be planted by hand using spades or planting tubes during the winter period.
Pest Management:	As required	Undertaken where plantation damage is occurring that will lead to economic loss. Applications will be ground based.
Monitoring:	<6 months weekly and at least quarterly thereafter	Access, hazards, weeds, pests and diseases, survival, firebreaks, and water points.
Nutrition:	As required	Based on precision forestry principles the nutrition status will be monitored and any economic imbalances remedied by the application of fertiliser.
Road Maintenance:	As required	Roads will be inspected and maintained to ensure access and to minimise any adverse impacts (e.g., erosion, poor drainage).
Firebreak Maintenance:	Annual	Firebreaks will be maintained in accordance with this Plan and the relevant firebreak and fuel reduction notice published by the Local Government Authority.
Declared Plants and Animals:	As required	Declared plants and animals will be identified through monitoring and declarations and control will be in

		accordance with the Biosecurity and Agricultural Management Act 2007.
Wildling Control	As required	Volunteer pine seedlings will be monitored and controlled outside of the plantation area,
Inventory:	>10	Undertaken to monitor plantation performance and forward planning.

Standard Prescriptions

Standard Prescriptions	
Pre-Plant Broad Spray:	2-5 L/ha biactive glyphosate (Roundup), 5-15 g/ha metsulfuron methyl (Brush Off) plus suitable wetting agent. Applied to pasture after autumn break.
Site Preparation:	Rip-mound to 1 m, rip only to 1 m, no mound or rip. Prescription tailored to soil and topography. Mounds usually orientated along contour with a 1:100 fall to minimise risk of erosion.
Pre-Plant Strip Spray:	2-5 L/ha biactive glyphosate, 20 g/ha metsulfuron methyl (Brush Off) plus suitable wetting agent. Applied to planting strip at least three weeks prior to planting.
Post-Plant Spray:	11-15 L/ha hexazinone (Velpar). Applied to planting strip or broad sprayed one month after planting. Only applied if there is a spring flush of competitive weeds along the strip spray lines.
Establishment Fertiliser:	100-150 g/seedling diammonium phosphate granules or compound blend depending on foliar or soil analysis buried within 10 cm of planted seedling. Generally, not required on fertile ex-pastured sites.
Maintenance Fertiliser:	100-300 kg/ha diammonium phosphate or urea or compound blend depending on foliar or soil analysis. Can occur at anytime not less than 10 years prior to harvest. Generally, not required on fertile ex-pastured sites.
Firebreaks:	2-5 L/ha biactive glyphosate (Roundup), 5-15 g/ha metsulfuron methyl (Brush Off) plus suitable wetting agent. Applied to pasture after autumn break. Mechanical grading.
Vermin Control	Trapping, baiting and professional shooting.
Grazing:	None after establishment.
Fencing:	Internal fencing removed and external fences maintained. Expenses shared with neighbours.
Access and Security:	Permits or licences. Locked gates. Cameras.

Water Supplies and Use

The property is in a proclaimed area under the *Rights and Water Irrigation Act 1914*. The property has several water points strategically located across the land for the purpose of watering grazing animals. These water points have a combined estimated capacity of 16,800 kilolitres. The Owner's use of the water supply will be restricted to limited quantities for ordinary and domestic purposes (<5,000 L/annum over the life of the plantation), and fire-fighting.

There is no requirement for a water licence for the planned sources and uses of water. There is no requirement for a bed and banks permit to undertake the development.

Harvest

The intent is to deploy a cut-to-length harvest system to produce logs for delivery to local and export markets. Prior to any harvest operations a harvest management plan will be developed for endorsement by the local government authority and communication to stakeholders. The harvest management plan shall include appropriate water, dust and noise management plans to adequately manage potential adverse impacts to the environment and stakeholders.

Around the final clear-felling of the plantation an assessment will be made on the future use of the property including the appropriate management of harvest residue.

9. HAULAGE AND MARKET INFORMATION

The property has direct access to Barber Road allowing for the efficient haulage of logs to key markets via the preferred haulage route found in Attachment 8. Prior to any haulage operations a haulage and traffic management plan will be developed for endorsement by the Local Government Authority and communication to stakeholders.

Forest Products	Destination
Environmental Credits:	ACCU Scheme, voluntary markets
Fence Posts:	Timber Treaters Bridgetown
Pulplogs:	Laminex Dardanup, Bunbury Port
Sawlogs:	Wespine Dardanup, Local Sawmillers
Power Poles:	Koppers Dardanup

Attachments:

1. Stoiche District Context Map
2. Stoiche Plantation Map
3. Stoiche Native Veg Map
4. Stoiche Waterways Map
5. Stoiche Nutrient Management Plan
6. Stoiche Landuse Map
7. Stoiche Contour Maps
 - a. With photo
 - b. No photo
8. Stoiche Haulage Route Map
9. Cultural Heritage Extract






STOICHE PLANTATION

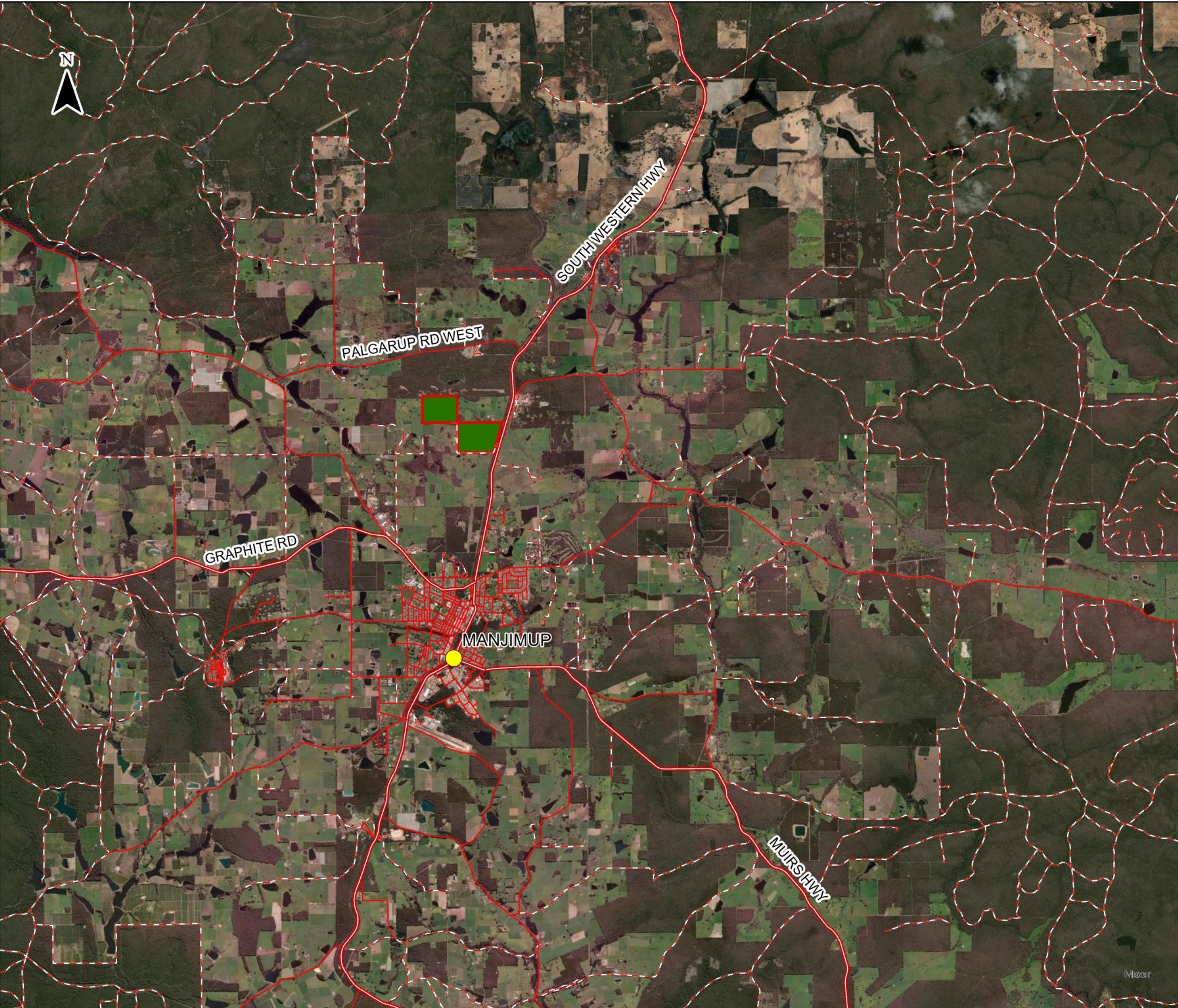
District Context Plan

Details

Lot 4156 on P15276 and Lot 6196 on P225713
SHIRE: Manjimup
LAND OWNER: Cultura Australia Pty Ltd
ACCESS: South Western Hwy

Legend

-  Major Town
-  Highway/Main Road - Sealed
-  Minor Road - Sealed
-  Minor Road - Unsealed
-  Stoiche Plantation



STOICHE PLANTATION Development Application

Details

Lot 4156 on P135276 and Lot 6196 on P225713
 SHIRE: Manjimup
 LAND OWNER: Cultura Australia Pty Ltd
 FIREBREAKS: External 15m
 Internal 6m
 ACCESS: South Western Hwy

Area Report

P. radiata P2025.....82.1ha
 TOTAL AREA.....82.1ha

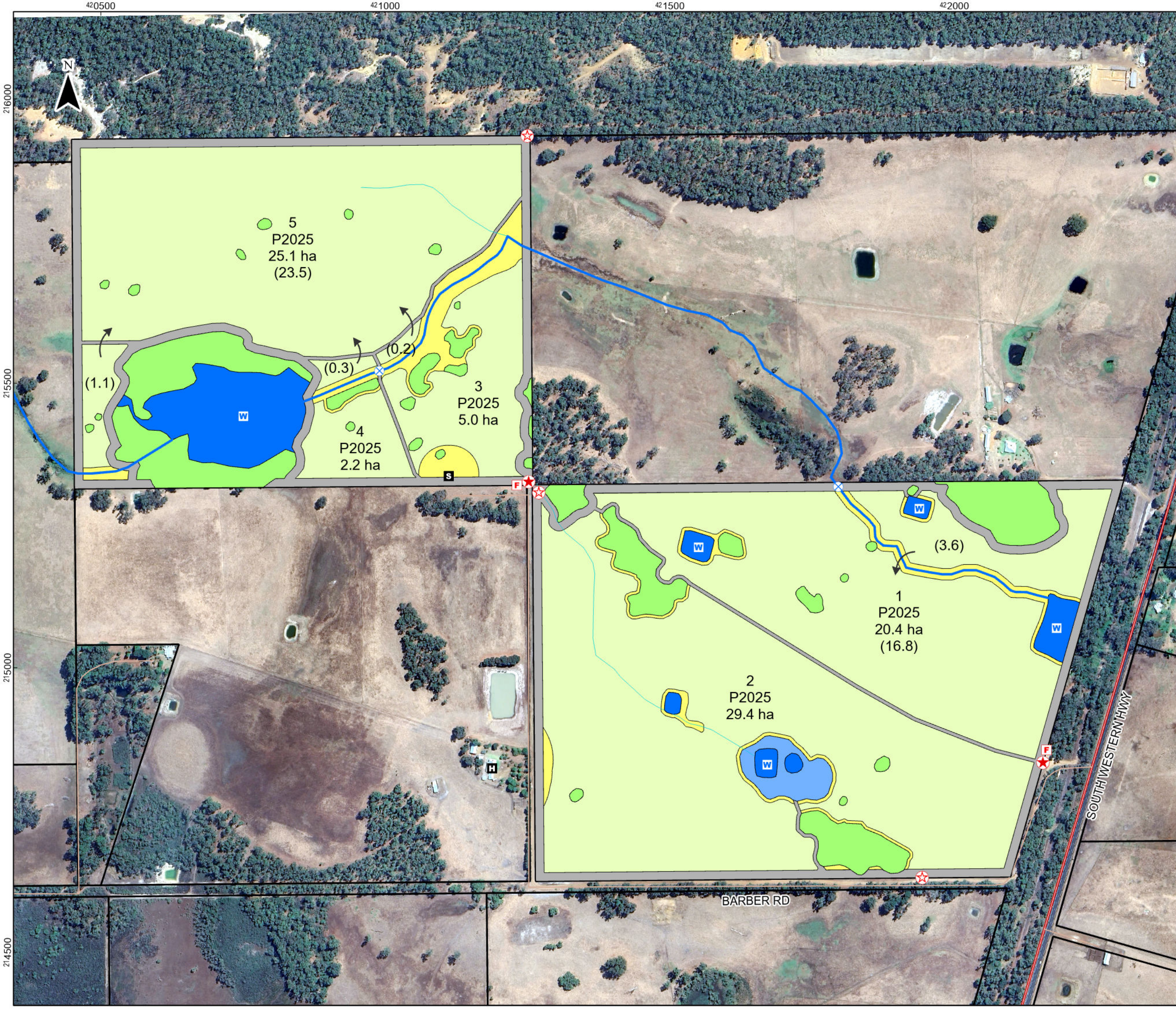
Legend

- Main Access (EMP)
- Access Gate
- Fire Map Tube
- House
- Shed
- Crossing
- Tank
- Waterpoint - Reliable
- Waterpoint - Seasonal only
- Powerline
- Track
- Drain
- Stream
- P. radiata (proposed planting)
- Buffer/ Non Plantable
- Firebreak
- Retained Veg
- Dam/Soak
- Wet/Non Plantable
- Indigenous Heritage Site

Location



0 100 200 300 400
Meters





**STOICHE PLANTATION
Native Vegetation**

Details

Lot 4156 on P135276 and Lot 6196 on P225713
 SHIRE: Manjimup
 LAND OWNER: Cultura Australia Pty Ltd

Area Statement

Remnant Vegetation.....9.7 ha

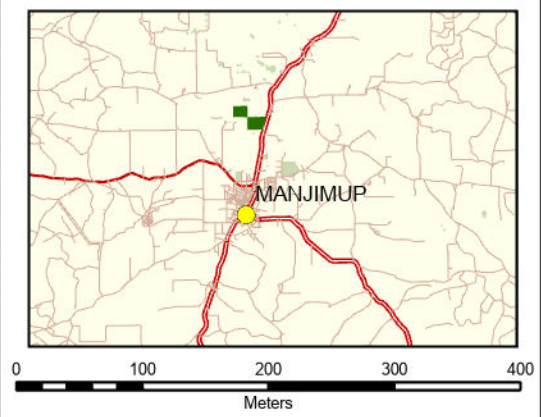
Legend

- * Declared Rare Flora
- Remnant Vegetation
- Stoiche Property

Sources

Declared Rare Flora
<https://dandjoo.bio.wa.gov.au/>
Remnant Vegetation
 Digitised from Google Earth imagery dated Mar 2023

Location










STOICHE PLANTATION Waterways

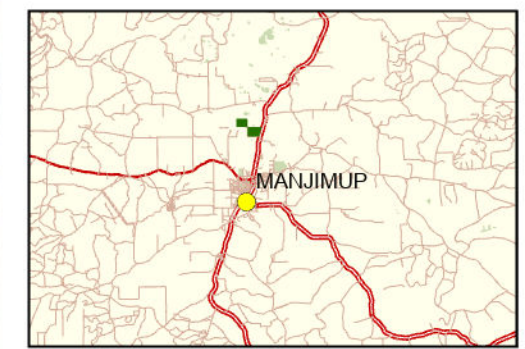
Details

Lot 4156 on P135276 and Lot 6196 on P225713
SHIRE: Manjimup
LAND OWNER: Cultura Australia Pty Ltd

Legend

-  Drain
-  Waterway
-  Dams/Soaks
-  Wet Area
-  Cadastre

Location



STOICHE PLANTATION Nutrient Management Plan

Details

Lot 4156 on P135276 and Lot 6196 on P225713
 SHIRE: Manjimup
 LAND OWNER: Cultura Australia Pty Ltd
 FIREBREAKS: External 15m
 Internal 6m
 ACCESS: South Western Hwy

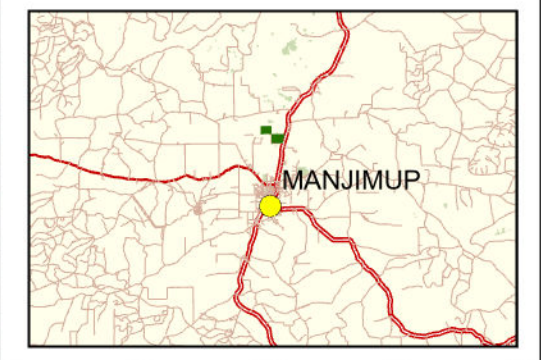
Area Report

P. radiata P2025.....82.1ha
 TOTAL AREA.....82.1ha

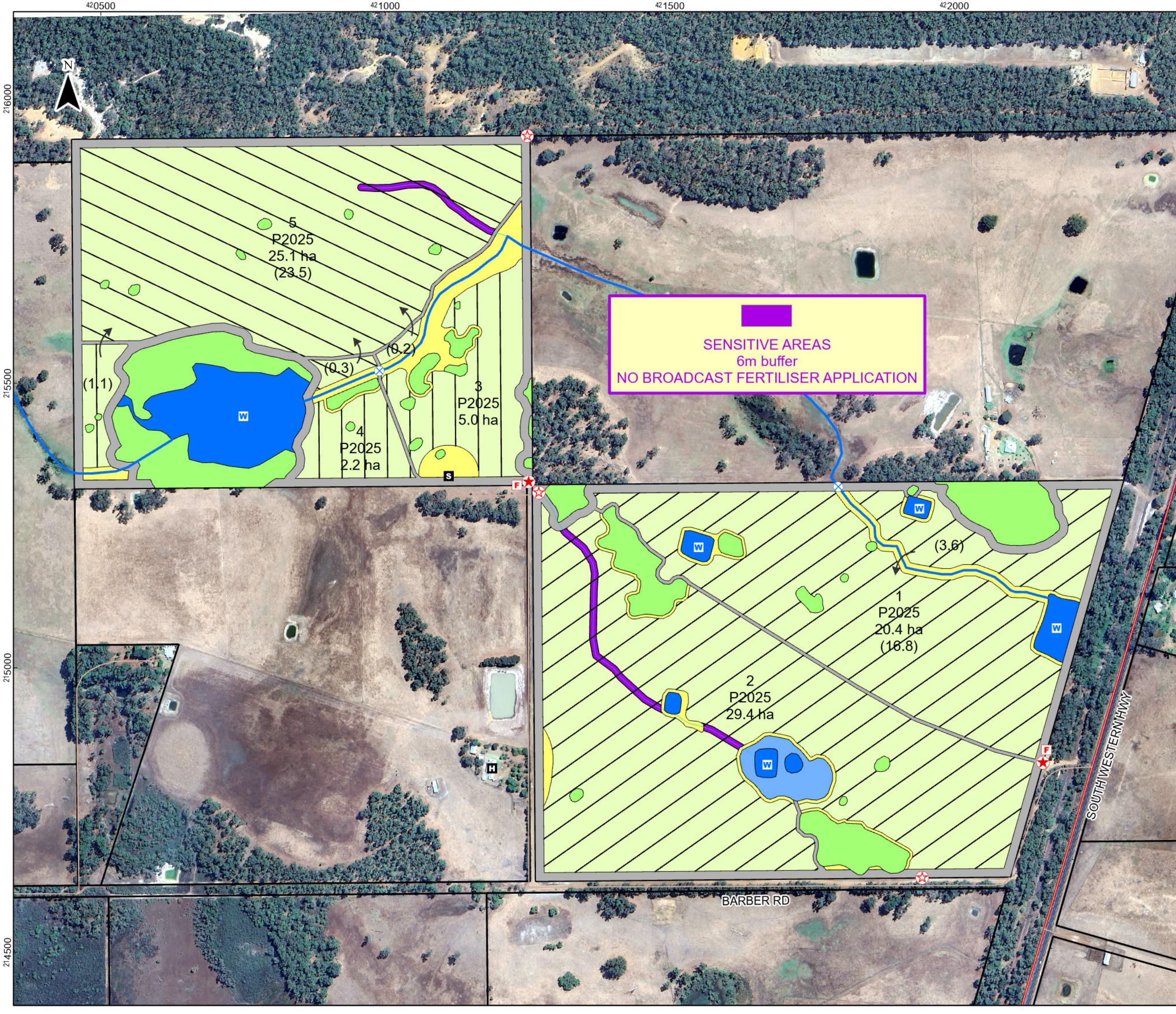
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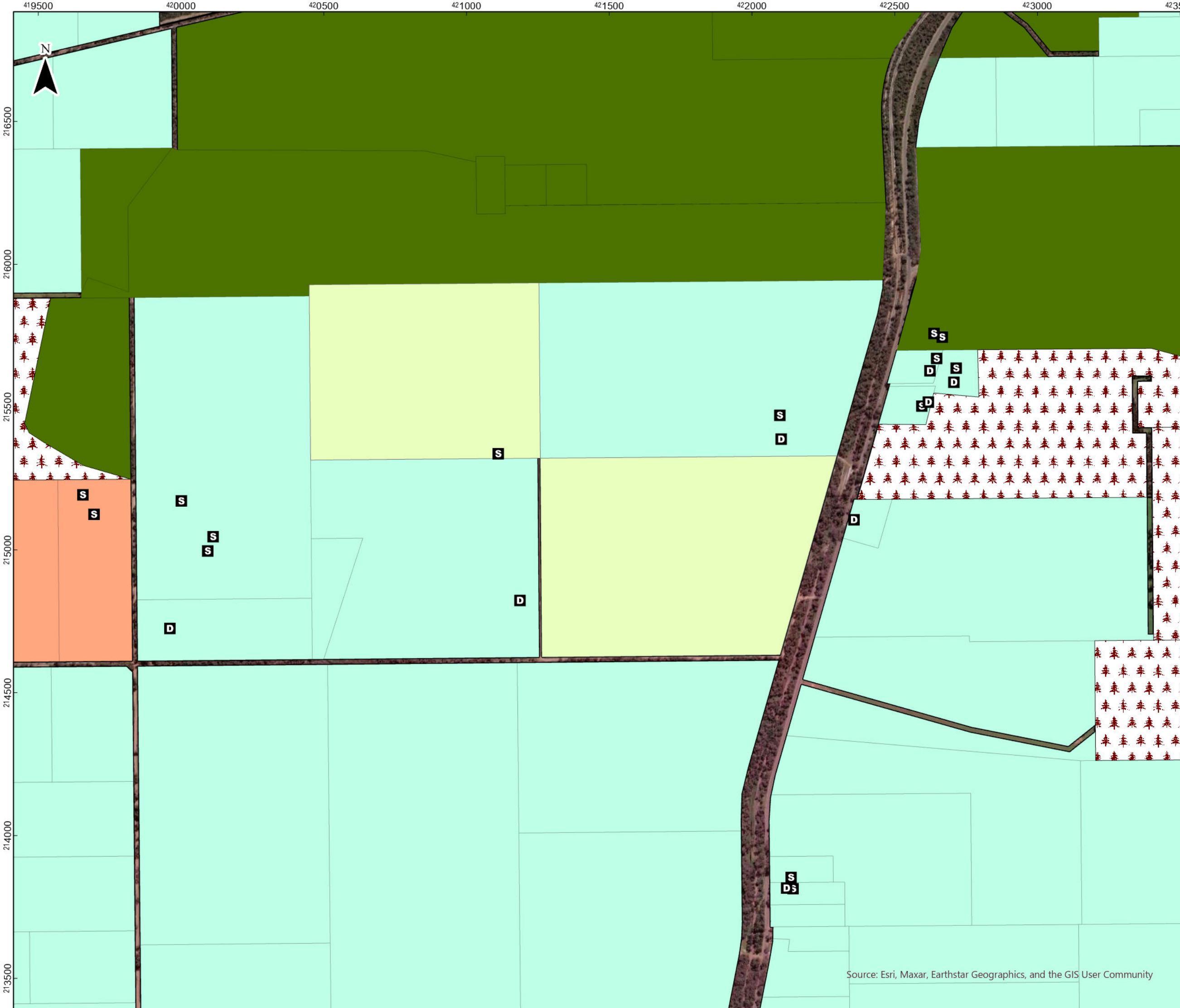
- Main Access (EMP)
- Access Gate
- Fire Map Tube
- House
- Shed
- Crossing
- Tank
- Waterpoint - Reliable
- Waterpoint - Seasonal only
- Row Direction (Spacing 4.0m)
- Powerline
- Track
- Drain
- Stream
- P. radiata (proposed planting)
- Buffer/ Non Plantable
- Firebreak
- Retained Veg
- Dam/Soak
- Wet/Non Plantable
- Indigenous Heritage Site

Location



SENSITIVE AREAS
 6m buffer
NO BROADCAST FERTILISER APPLICATION





STOICHE PLANTATION Land Use

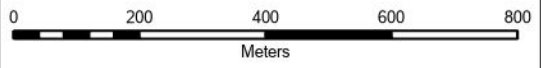
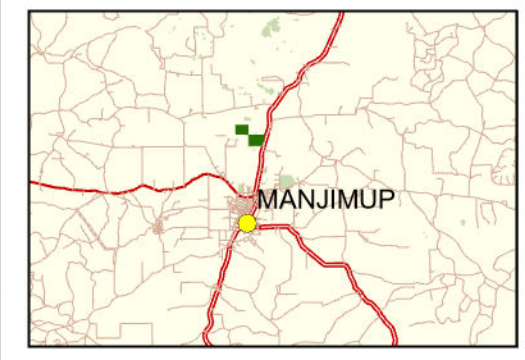
Details

Lot 415 on P135276 and Lot 6196 on P225713
 SHIRE: Manjimup
 LAND OWNER: Cultura Australia Pty Ltd

Legend

- D** Dwelling
- S** Shed
- Stoiche
- General Grazing
- Orchard
- Forested
- Softwood Plantation
- Softwood Plantation
- Cadastre
- Indigenous Heritage Site

Location



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



STOICHE PLANTATION Contour Map

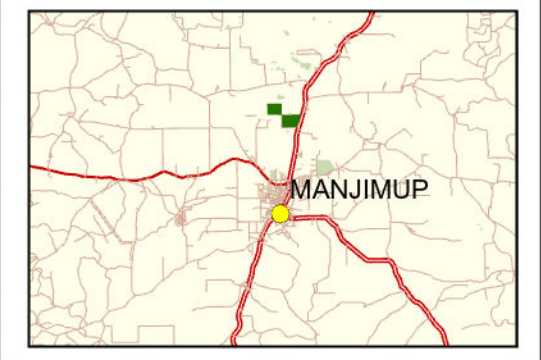
Details

Lot 4156 on P135276 and Lot 6196 on P225713
 SHIRE: Manjimup
 LAND OWNER: Cultura Australia Pty Ltd
 ACCESS: South Western Hwy

Legend

- Contour Line (5m interval)
- Stoiche Boundary
- Surrounding Cadastre

Location






STOICHE PLANTATION Contour Map

Details

Lot 4156 on P135276 and Lot 6196 on P225713
SHIRE: Manjimup
LAND OWNER: Cultura Australia Pty Ltd
ACCESS: South Western Hwy

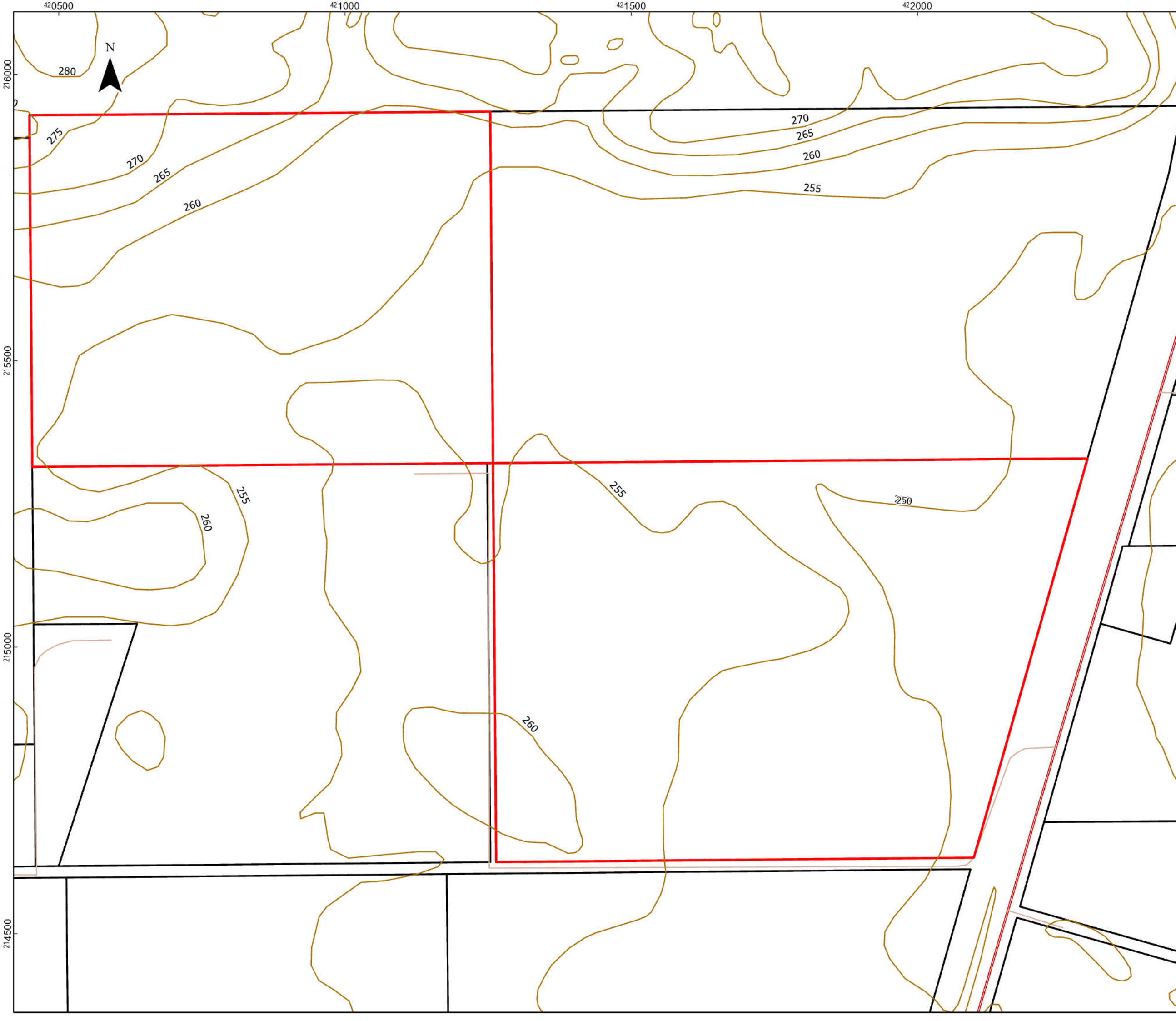
Legend

-  Contour Line (5m interval)
-  Stoiche Boundary
-  Surrounding Cadastre

Location



0 100 200 300 400
Meters



STOICHE PLANTATION Proposed Haulage Route

Details

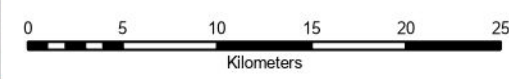
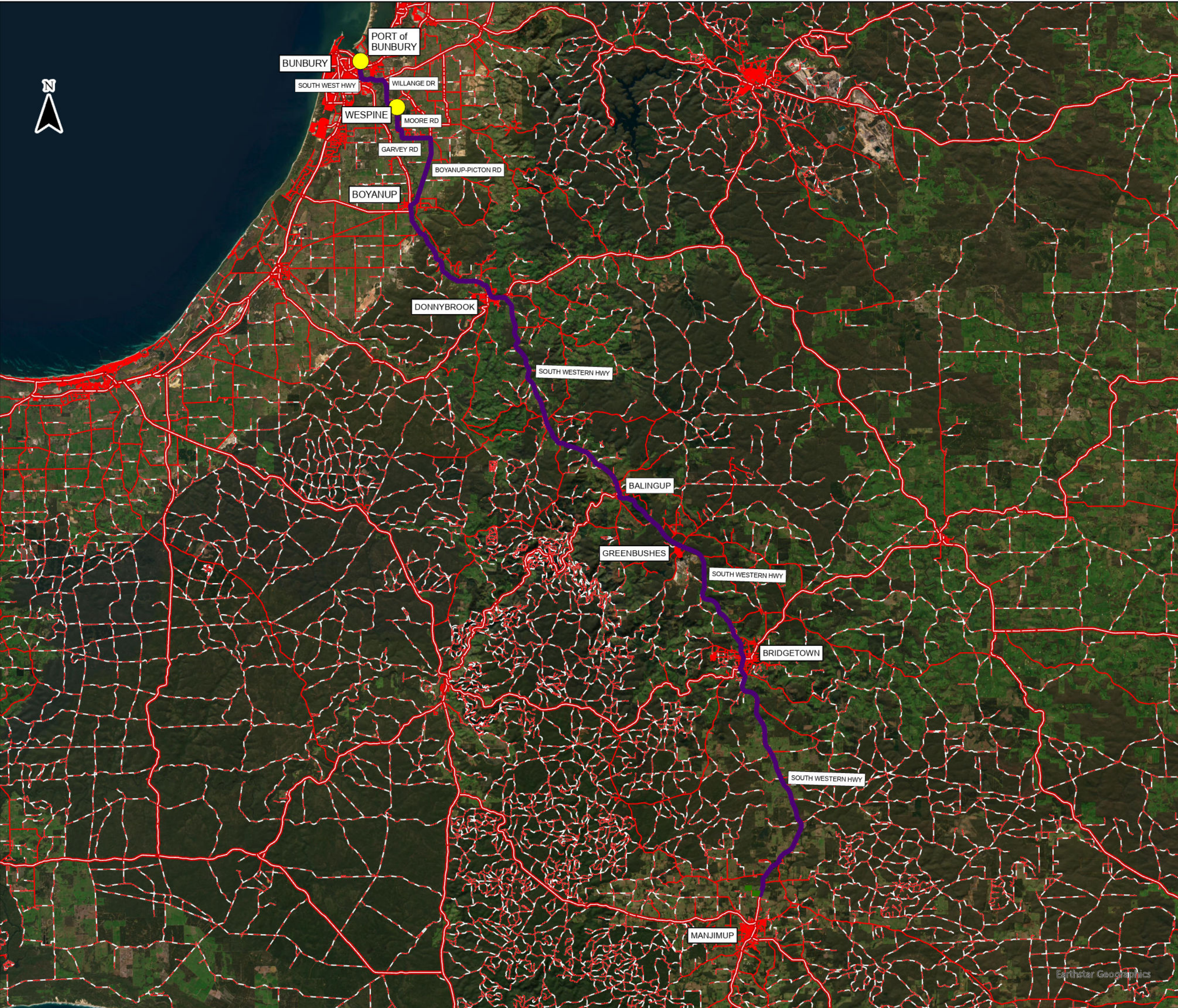
Lot 4156 on P135276 and Lot 6196 on P225713
 SHIRE: Manjimup
 LAND OWNER: Cultura Australia Pty Ltd
 ACCESS: South Western Hwy

Destination

1. WESPINE INDUSTRIES
241 Moore Rd, Dardanup
2. PORT OF BUNBURY
54 Casuarina Dr, Bunbury

Legend

-  Destination
-  Haulage Route
-  Highway/Main Road - Sealed
-  Minor Road - Sealed
-  Minor Road - Unsealed
-  Stoiche Plantation



List of Aboriginal Cultural Heritage (ACH) Register

Search Criteria

No Aboriginal Cultural Heritage (ACH) Register in Custom search area - Polygon - 116.127869779353°E, 34.2094635896299°S (GDA94) : 116.127869779353°E, 34.1918939796798°S (GDA94) : 116.160571271663°E, 34.1918939796798°S (GDA94) : 116.160571271663°E, 34.2094635896299°S (GDA94) : 116.127869779353°E, 34.2094635896299°S (GDA94)

Disclaimer

Aboriginal heritage holds significant value to Aboriginal people for their social, spiritual, historical, scientific, or aesthetic importance within Aboriginal traditions, and provides an essential link for Aboriginal people to their past, present and future. In Western Australia Aboriginal heritage is protected under the *Aboriginal Heritage Act 1972*.

All Aboriginal cultural heritage in Western Australia is protected, whether or not the ACH has been reported or exists on the Register.

The information provided is made available in good faith and is predominately based on the information provided to the Department of Planning, Lands and Heritage by third parties. The information is provided solely on the basis that readers will be responsible for making their own assessment as to the accuracy of the information. If you find any errors or omissions in our records, including our maps, it would be appreciated if you provide the details to the Department via <https://achknowledge.dplh.wa.gov.au/ach-enquiry-form> and we will make every effort to rectify it as soon as possible.

South West Settlement ILUA Disclaimer

Your heritage enquiry is on land **within or adjacent to** the following Indigenous Land Use Agreement(s): South West Boojarah #2 Indigenous Land Use Agreement.

On 8 June 2015, six identical Indigenous Land Use Agreements (ILUAs) were executed across the South West by the Western Australian Government and, respectively, the Yued, Whadjuk People, Gnaala Karla Booja, Ballardong People, South West Boojarah #2 and Wagyl Kaip & Southern Noongar groups, and the South West Aboriginal Land and Sea Council (SWALSC).

The ILUAs bind the parties (including 'the State', which encompasses all State Government Departments and certain State Government agencies) to enter into a Noongar Standard Heritage Agreement (NSHA) when conducting Aboriginal Heritage Surveys in the ILUA areas, unless they have an existing heritage agreement. It is also intended that other State agencies and instrumentalities enter into the NSHA when conducting Aboriginal Heritage Surveys in the ILUA areas. It is recommended a NSHA is entered into, and an 'Activity Notice' issued under the NSHA, if there is a risk that an activity will 'impact' (i.e. by excavating, damaging, destroying or altering in any way) an Aboriginal heritage site. The Aboriginal Heritage Due Diligence Guidelines, which are referenced by the NSHA, provide guidance on how to assess the potential risk to Aboriginal heritage.

Likewise, from 8 June 2015 the Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) in granting Mineral, Petroleum and related Access Authority tenures within the South West Settlement ILUA areas, will place a condition on these tenures requiring a heritage agreement or a NSHA before any rights can be exercised.

If you are a State Government Department, Agency or Instrumentality, or have a heritage condition placed on your mineral or petroleum title by DEMIRS, you should seek advice as to the requirement to use the NSHA for your proposed activity. The full ILUA documents, maps of the ILUA areas and the NSHA template can be found at <https://www.wa.gov.au/organisation/departments-of-the-premier-and-cabinet/south-west-native-title-settlement>.

Further advice can also be sought from the Department of Planning, Lands and Heritage via <https://achknowledge.dplh.wa.gov.au/ach-enquiry-form>.

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Aboriginal Cultural Heritage Inquiry System

List of Aboriginal Cultural Heritage (ACH) Register

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Coordinates

Map coordinates are based on the GDA 2020 Datum.

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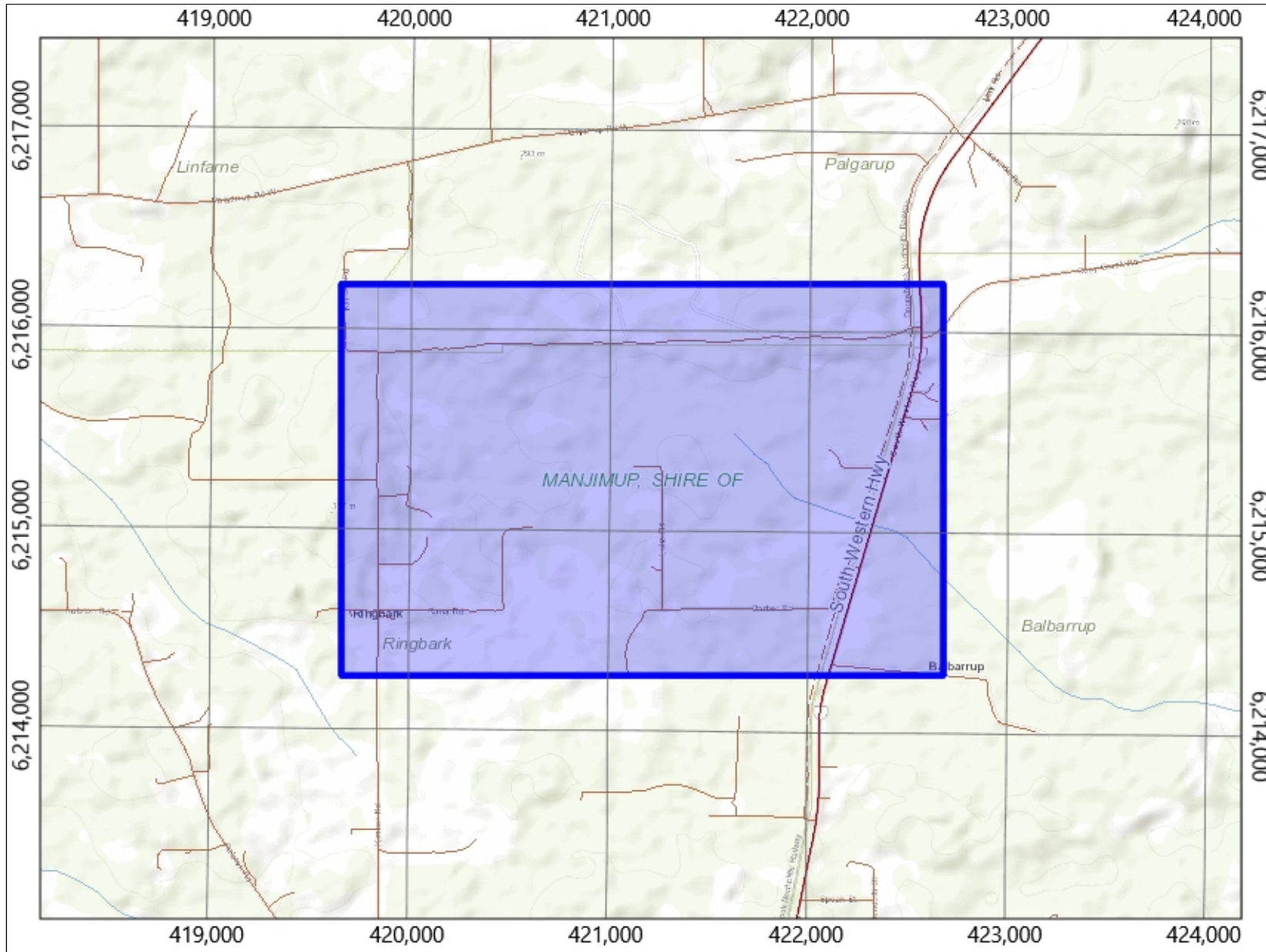
Satellite, Hybrid, Road basemap sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, HERE, DeLorme, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community.

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Aboriginal Cultural Heritage Inquiry System

Map of Aboriginal Cultural Heritage (ACH) Register

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Legend

- Aboriginal Cultural Heritage (ACH) Register
- Search Area
- Aboriginal Community
 - Permanent
 - Seasonal
 - Town Based
- Town
- Road
- River
- Local Government Authority

1.16 kilometres

Map Scale 1 : 35,200

MGA Zone 50 (GDA2020)



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1. DETAILS

Fire Management Plan Details

Plantation:	Stoiche		
Address	Barber Road		
Locality:	Ringbark	Nearest town (distance):	Manjimup (3km)
Species:	<i>Pinus radiata</i>	Area:	82 ha
Fire Weather District	Southern Forests		
Local Government Authority:	Shire of Manjimup		
Local Fire Brigade:	Ringbarkers		

Owner's Details

Name:	Cultura Australia Pty Ltd		
Primary Contact Number:			
Email:			
Address:	Level 9, Mia Yellagonga Tower 2, 5 Spring St, Perth		
Postcode:	6000	Country:	Australia

Forest Manager's Details

Organisation:	Delta Forestry Pty Ltd		
24 Hour Contact Number:			
Email:			
Address:	33 Headstay Cove, Geographe		
Postcode:	6280	Country:	Australia

Author's Details

Name:	Steve Pickering		
Title	Forest Manager		
Mobile Number:			
Email:			

2. PREAMBLE

The Stoiche property, being Lot 6196 and 4156 Barber Road, Ringbark, is subject to a conditional purchase agreement between the current proprietor and Cultura Australia Pty Ltd, to be managed by Delta Forestry. The Purchase Agreement is

conditional upon obtaining development approval for the establishment of a *Pinus radiata* plantation on the property. This fire management plan (**Plan**) is provided in support of this, as part of the separate Forest Management Plan.

The farm has been planned by experienced foresters and with specific regard to the Code of Practice for Timber Plantations in WA (Code) which sets out goals and guidelines for good plantation management, and particularly the Department of Fire and Emergency Services Guidelines for Plantation Fire Protection (DFES Guidelines). The DFES Guidelines establish industry best practice fire risk management protocol for Tree Farms in WA.

3. GUIDELINES FOR PLANTATION FIRE PROTECTION COMPLIANCE¹

Criteria	Check
Landowner and/or occupier information such as identification of the plantation company and all relevant contact details, including 24 hour fire contact phone number:	Complies.
A firefighting equipment register and details of any cooperative arrangements:	Complies.
Plantation species, area, layout including compartment size:	Complies.
Fire protection measures such as: <ul style="list-style-type: none"> • Fire detection and reporting mechanisms. • Initial response and attack of fires, including resource dispatch and communication with relevant authorities. • Identification of potential ignition sources. • Access in and around the plantation. • Access roads in and around the plantation. • Access roads must be clearly signed. • Methods of firebreak maintenance. • Measures to protect services (e.g., power lines and gas pipelines). • Water supplies and approximate capacities of these supplies. • Surrounding vegetation type, age since last burn and the site is being effectively managed, if available. • Sites fire history, where available. • Harvesting procedures and other measures used to reduce hazards (e.g., slashing and thinning programs). 	Complies.

¹ Department of Fire and Emergency Services Guidelines for Plantation Fire Protection 2011.

<ul style="list-style-type: none"> Fuel reduction program, if applicable, including herbicide weed control and controlled grazing. 	
Surrounding local features including: <ul style="list-style-type: none"> Existing plantations. Proximity to towns/settlements. Remnant vegetation. Significant values relevant to site. 	Complies.
Provision of a map at a suitable scale: <ul style="list-style-type: none"> Plantation maps must be provided to local government and to DFES, and provide additional maps if requested by DFES or the local government. These maps are to held in suitable containers and sign posted at the main property entrances or other local government approved locations for use by personnel attending a fire. Plantations managers must check and update these maps annually to ensure their quality and accuracy, dates on the maps may assist with this. 	Complies.
Fire management maps will include: <ul style="list-style-type: none"> Compartment boundaries and size. Water supplies including irrigation channels and dams. Emergency access/egress (fire breaks). Structures houses, sheds etc. Significant features e.g., creek crossings, dead end access tracks, areas of remnant vegetation. 	Complies.
Standardised map legends are to be applied across the plantation industry:	Does not comply. Standard has not been developed.

4. PURPOSE

The purpose of this fire management plan is to outline the response and protection measures to be implemented at the property to respond to fire and minimise the fire risk to the plantation whilst protecting human life and local community assets.

5. SCOPE

The Owner and Forest Management are obligated under the *Bush Fires Act 1954* to, upon becoming aware of a bushfire, to take all possible measures to extinguish the fire. The Plan has been developed in accordance with the Code of Practice for

Timber Plantations in Western Australia (**Code**) and the Department of Fire and Emergency services (DFES) Guidelines for Plantation Fire Protection (“Guidelines”). The Plan is specific for the property and any surrounding areas detailed within. The scope of use shall include but not limited to fire risk management, plantation design and access, fuel and firebreak management, fire identification and response, water resources and availability, firefighting resources and availability, stakeholder communication, emergency contacts, and cooperative fire management measures.

6. PROPERTY DESCRIPTION

Particulars	
Title Information:	Lot 6196 on Deposited Plan 225713 Lot 4156 on Deposited Plan 135276
Planning Scheme:	Shire of Manjimup Scheme No. 4
Planning Zone:	General Agriculture
Planning Overlays:	Bushfire Prone
Existing Land Use:	Grazing livestock
Land Units:	Corbalup subsystem, Collis subsystem, Yarnup subsystem
Topography:	Flat (0-5%) (See Appendix 1 – Topographical Information)
Soil Types:	Deep sands, loamy to sandy gravels, sandy duplexes

7. ACCESS DESCRIPTION

The Stoiche property is situated approximately 3 kilometres north of the Manjimup townsite and is accessed via South-West Highway. (See Appendix 2).

Main Access

The main access point is via South Western and Barber Road to the property access gate. Travel distance along South Western Highway is approximately 3 kilometres on a sealed road. Travel distance along Barber Road is approximately 50 metres on a formed gravel road.

Secondary Access

The secondary access point is via South-West, Barber Road and Luke Road to the

property access gate. Travel distance along South-West Highway is approximately 3 kilometres on a sealed road. Travel distance along Barber Road is approximately 1 kilometre on a formed gravel road. Travel distance along Luke Road is approximately 0.7 kilometres on a formed gravel road.

Internal Access

The plantation is well serviced by an internal road network and firebreak systems that has been strategically incorporated into the landscape to reduce navigation uncertainty, provide ease of access for light vehicles and heavy fire equipment. All firebreaks can exceed a 15 tonne load limit during the restricted and prohibited burning periods.

Where a firebreak crosses a gully or stream, piping and/or hard surfacing material will be applied to the crossover point to ensure these areas are trafficable during the restricted and prohibited burning periods and shall be compliant with minimum 15 tonne load limits (See Attachment 3 - Roads and Firebreaks).

Emergency access and egress roads and tracks are shown on the Fire Management Plan and direct internal plantation traffic to designated Access Gateways on Barber and Luke Road (See Attachment 4 - Emergency Access and Egress Roads and Tracks).

All internal fencing will be removed as part of the plantation development to allow for unimpeded fire access. External boundary fencing will be maintained for security purposes.

8. PLANTATION SPECIES AND DESIGN

The plantation will be established to *P. radiata* (softwood pine) at 1,100 stems per hectare. The site will be prepared using two different establishment methods. These being:

- Rip and mounding
- Ripping only

Both establishment methods will be at 4 metre intervals and the spacing of tree

seedlings will be at approximately 2.2 metres along the rows to achieve an 1100 stems per hectare standing stocking level. (See Appendix 5 – Plantation Design Plan)

Access within the confines of the planted compartment area will be limited by the establishment method. The very nature of rip/mounding creates barriers for fire appliance vehicles traversing internally through the compartment. In a fire event, Fire Controllers should be made aware of the rip/mounding impediments and use nominated firebreak accessways as primary traffic ways through and around the plantation area.

Plantation setbacks are designed to minimise the risk of any adverse bushfire impact to surrounding land uses and conversely protect the plantation from external risk factors. In determining the setbacks in this Plan, we have considered the risk of bushfire from internal and external sources of ignition including the DBCA managed crown land and state forest.

Plantation Design Setbacks	
Public Roads:	15 m
Title Boundary:	15 m
Compartment Boundary:	6 m
Remnant Vegetation:	6 m minimum
Watercourses:	6 m minimum
Dwellings	100 m
Buildings	50 m
Powerlines	20 m minimum

Biodiversity and Conservation Values

There is a degraded watercourse running through the property, isolated stands of medium marri and jarrah forest in various states of condition, and a wetland. These areas can be managed for their conservation and biodiversity values with the exclusion of grazing animals and potential of reintroduction of controlled burning to stimulate recruitment and germination of native species. Appropriate plantation design and fire management will enhance the biodiversity and conservation values of the property.

Biodiversity and Conservation Features

Vegetation Types:	Medium jarrah and marri
Threatened Species:	Western Ringtail Possum
TEC ² :	Nil
Vegetation Condition:	Good to poor

9. STAKEHOLDERS, LAND USE AND FIRE HISTORY

Neighbouring stakeholders are listed below. Delta Forestry maintains a database of neighbours which will be used for the communication and management of sensitive operations (e.g., fire, aerial spraying, vermin control, harvesting). For privacy reasons, names and contact details of private residences have been omitted. It appears a section of 27306 South Western Highway burnt during 2018.

Stakeholders

Property identification	Contact	Land use	Last Fire
27390 South Western Highway, Ringbark		Grazing	Unknown
27306 South Western Highway, Ringbark		Forest	2018
270 Kimber Road, Ringbark		Grazing	Unknown
19 Luke Road, Ringbark		Grazing	Unknown
Lot 6197 Barber Road, Ringbark		Grazing	Unknown

10. FOREST DESCRIPTION
Forest Area Statement (ha)

Plantation:	82
Native Vegetation:	10
Buffers and Water Courses:	6
Firebreaks and Tracks:	12
Dams:	5
Total:	115

² Threatened ecological community.

11. SURROUNDING FEATURES

Direction	Feature
South	Adjoining – Grassed pastures.
West	Adjoining – Grassed pastures.
North	Adjoining - Grassed pastures/native forest Beyond – Native forest vegetation types.
East	Adjoining - Native forest vegetation types (depth 100 metres) Beyond – Grassed pastures.

12. RISK TO WIDER COMMUNITY

The level of risk to the wider community is not any greater than currently observed. The general Stoiche agricultural area is isolated and land parcels surrounded by Native Forest. The risk levels associated with the surrounding lands are recognised by the local community and land management agencies.

In the immediate surrounds adjoining the plantation, the risk is managed by identification, compliance and regulation. There are significant areas of defensible space between the plantation boundary and surrounding property dwellings in addition to the 15 metre external firebreak network around the plantation edge.

13. FIRE CONTACT INFORMATION

Key Contact Information

Fire Emergency:	000
Delta Forestry (24 hr)	08 9778 9995

Entity	Name	Contact number
DFES	Lower South West	(08) 9771 6800
DFES Duty Officer		1800 512 111
Shire Fire Duty Officer		0427 913 252
CBFCO	Remo Pessotto	0427 270 714
DCBFCO	Brad Wren	0427 959 431
Ringbarkers FCO	Paul Tempra	0417 095 899
Ringbarkers FCO	Frank Shaw	0473 371 185
DBCA Manjimup		08 9771 7988
Shire of Manjimup		08 9771 7777
WAPOL		000

14. FIRE DETECTION AND INITIAL RESPONSE

Protecting the plantation from fire is critical given *P. radiata* is not tolerant of severe fire. An overarching annual fire management plan will be prepared for the fire control activities within plantations and activities undertaken will comply with:

- The Guidelines;
- Shire of Manjimup Firebreak and Fuel Hazard Reduction Notice; and
- The Code.

Fire events within the plantation area are likely to be detected by Department of Biodiversity, Conservation and Attraction's (DBCA) aerial fire surveillance, neighbouring landowners and members of the public passing by the property.

Plantation GIS data sets will be supplied to DFES and DBCA for inclusion in emergency service directories and for fire co-ordination centres. Maps and our overarching annual fire management plan will be provided to local government

when requested. In addition, plantation signposting will have relevant fire contact information and location details for efficient fire notifications.

In the event of a wildfire within the plantation area, the following suppression methods will be considered by the Forest Manager along with fire suppression priority values.

Fire Response Matrix		
Fire danger index	Suppression type	Management unit
Low:	Direct attack on head fire and flank fire – earthmoving	Small fire area confined within a compartment cell
Low – Mod:	Flank fire attack – earthmoving machine and aerial water bombing assisted	Fire area confined to a single compartment cell
Mod – High:	Tail fire suppression – earthmoving machine and, aerial water bombing assisted	Fire area confined to multiple compartment cells or perimeter breaks
High:	Aerial water bombing and machine assisted suppression	Fire area confined to low fuel areas within or outside the plantation area

Should a plantation fire occur, the Forest Manager will respond to suppress the fire on behalf of the Owner and will be responsible for mop up and ongoing monitoring within the property boundaries once the wildfire has been brought under control and running fire is contained with mineral earth firebreaks.

15. FIRE FIGHTING RESOURCES

The Forest Manager will have the following resources available to respond to fire.

Resource	Location
500 litre slip on	Manjimup/Busselton
400 litre slip on	Dardanup
2 x 2,300 litre contract Heavy Tankers	Manjimup

The Forest Manager will review its resourcing requirements from time to time and may engage the services of third-party providers to increase the number and availability of resources during the fire season. Future resourcing will be detailed

in our overarching annual fire management plan.

16. FIRE REPOSE

There will be a 30-minute response time from the closest available resource from the property.

17. FIREBREAK AND FUEL MANAGEMENT

Firebreaks will be inspected annually and maintained in a trafficable condition cleared of all flammable material in line with the annual Manjimup Shire Annual Compliance Notice. Firebreaks at a minimum shall have a clearance of 15 metres in width for external breaks and 6 metres in width internal breaks and 6 metres in vertical height, allowing the safe passing of fire-fighting appliances. Firebreaks will be maintained by either herbicide application preceding the onset of the fire season and/or firebreak grading to remove flammable material.

Annual grass inspections will be carried out prior to the commencement of the Restricted Fire Season to ascertain whether controls are needed to reduce potential fire spread risk. As the plantation achieves tree canopy closure, grasses will be shaded out of the plantation area. Grasses will therefore predominately frequent areas outside of the tree crop area along firebreaks and within non plant areas where they are able to be managed effectively using herbicides and/or mechanical treatments.

Building setbacks will be observed for outbuildings. There is no dwelling on the Stoiche property.

There is no power supply line on the property. No flammable hydrocarbons are to be stored on the property.

18. FUEL REDUCTION CONSIDERATIONS

As detailed in the development application, the property has a long history of grazing which has led to the decline in understorey native vegetation species and a structure change to predominately grasslands with mixed upper canopy forest types. By removing grazing animals, it is likely that there will be a return to of

some native understorey species within remnant native vegetation islands within the confines of the plantation. Remnant vegetation areas will be closely monitored and measured and should fuel levels exceed 8 tonnes/hectare, some means of fuel reduction will be contemplated. This could be in the form of prescribed burning however, where prescribed burning is a “fire risk” (potential destruction or damage that would deem the plantation to be unmerchantable) to the plantation then herbicide treatments or mechanical fuel mitigation will be used as an alternative.

19. OTHER MEASURES TO REDUCE FUEL LOADS

Plantation firebreak edge trees will be assessed annually to determine whether there is limb intrusion into the firebreak accessway. Tree limbs encroaching into the firebreak will be pruned to maintain vertical height specifications as detailed in the Local Authority’s Firebreak Orders.

Where there is a potential ignition point fire risk, Fuel Reduced Buffers (FRB’s) may be installed. FRB’s may be in the form of

- Low pruning pine trees at 5 years to 10 years of age to 2.1 metres in height to a depth of 20.0 metres from the plantation edge.
- Low pruning pine trees at 5 years to 10 years of age to 2.1 metres in height to a depth of 20.0 metres at road and firebreak intersections and internal strategic firebreaks.

20. POTENTIAL IGNITION SOURCES

Ignition Point	Likelihood	Controls
1. Within Plantation – normal operations	Unlikely	Access via firebreaks and roads only.
2. Within Plantation – harvest - powerline	Unlikely Possible	Implement harvest bans on high fire danger index. Harvest equipment fitted with suppression systems. One fire unit for each harvester onsite during operational hours. Powerline easements to be treated with herbicides or by mechanical means to limit fire spread in the event of a downed powerline or pole fire.
2. Roadside fire	Possible	Firebreaks well managed.
3. Neighbouring property activity or fire escape	Unlikely	Firebreaks well managed. Consider fuel loads along connected forest corridors. Participate in interagency prescribed burning activities in high fuel loads outside the plantation area on DBCA, local government or local government land tenures
4. Fire escape DBCA managed land (Forest, Reserves or National Park)	Possible	Be aware of fuel reduction burning in the general vicinity. Assist with prescribed burning where land unit adjoins property boundary.
6. Lightning Strike	Unlikely	Monitor weather. Strategic positioning of Plantation Management staff and contractors for fire monitoring.
7. Arson and illegal activities	Possible	Firebreaks well managed. Security, surveillance and monitoring. Liaison with government agencies, neighbours and local police.

Likelihood
Very Unlikely - Rare / not expected but remotely possible
Unlikely - Improbable but could happen / not expected
Possible - Could happen or plausible
Likely - Will probably happen / is likely to happen
Certain - 100% likely / almost 100% likely

21. WATER SUPPLIES

Water point location information is shown on the FMP and identified by a “W” symbol contained within fine blue line work. The property has several water points strategically located across the land for the purpose of watering grazing animals. These water points have a combined estimated capacity of 16,800 kilolitres. Accessways from firebreaks or compartment boundaries will be installed to access these reliable water points for fire control purposes. The water point volume, access and egress will be monitored prior to and during each fire season. Reliable water points are be marked on maps and by signage on the property.

22. FIRE DANGER PERIODS

Alertness will be increased as required during bushfire season, particularly on extreme and catastrophic fire danger rating days. Our response to increased risk may include standby of additional fire suppression resources (Asset Land Management Pty Ltd), fire detection patrols and stand down of contractors operating within the plantation area. The landowner, Plantation Manager and Contractors will comply with Total Fire Bans or Movement Bans. (See Appendix 7 – Fire Danger Rating Operation Restrictions).

23. FIRE MAPS

Fire management maps will be prepared and reviewed annually to reflect the current forest condition and the latest contact information. Fire maps will be made available to DFES, DBCA, Forest Industries Federation of Western Australia (FIFWA) Fire Co- operative Group through map revisions and GIS sharing and local volunteer fire brigades. Fire maps will also be held at the property’s main entrance point in red coloured waterproof fire tubes at the property access points.

24. SIGNPOSTING

Plantation management signage will be placed at plantation entry points and will provide relevant plantation details and contact numbers for fire control purposes.

25. FIRE FIGHTING TRAINING

Plantation operational field staff and contractors used for fire control activities will have attained a Basic Fire Fighter training level or better.

26. HARVEST

The intent is to deploy a cut-to-length harvest system to produce logs for delivery to local and export markets. Prior to any harvest operations a harvest management plan will be developed for endorsement by the local government authority and communication to stakeholders. The harvest management plan shall include a section on harvest residue management to adequately manage fire risk, include additional resources to managed heightened risk of fire from machinery, and all operations will comply with harvest and vehicle movement bans. A decision to continue with the plantation use or otherwise will be made after the clearfell harvest noting the management of stump residues will need to be incorporated into any plans if an alternative land use is contemplated.

Attachments:




1. Topographical Information
2. District Context Plan.
3. Roads and Firebreaks – FMP
4. Emergency Access and Egress Roads and Tracks
5. Plantation Design Plan
6. Surrounding Land Use
7. Fire Danger Rating Operation Restrictions

STOICHE PLANTATION Contour Map

Details

Lot 4156 on P135276 and Lot 6196 on P225713
SHIRE: Manjimup
LAND OWNER: Cultura Australia Pty Ltd
ACCESS: South Western Hwy

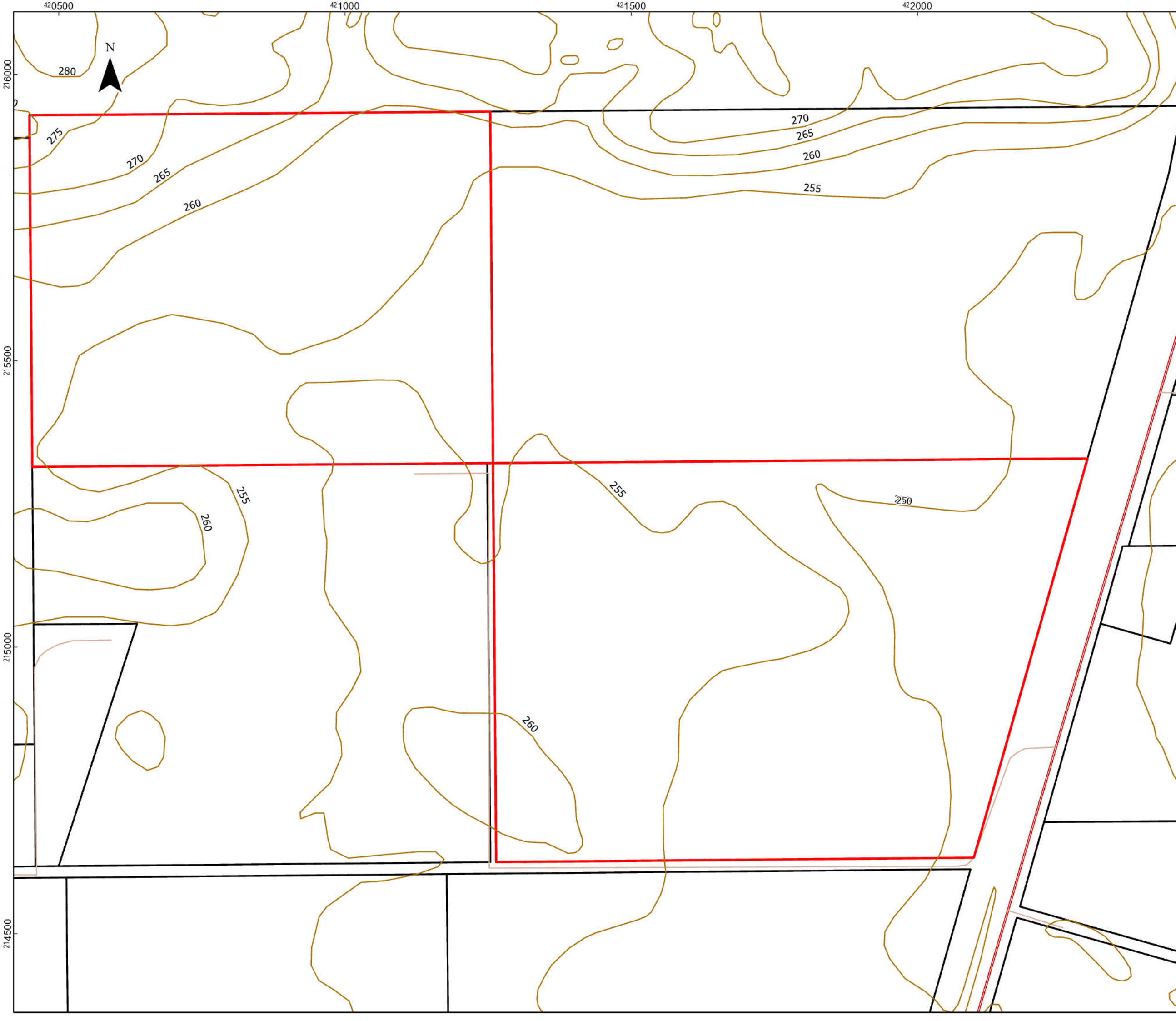
Legend

-  Contour Line (5m interval)
-  Stoiche Boundary
-  Surrounding Cadastre

Location



0 100 200 300 400
Meters








STOICHE PLANTATION

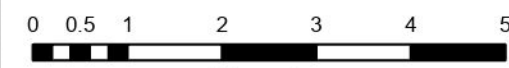
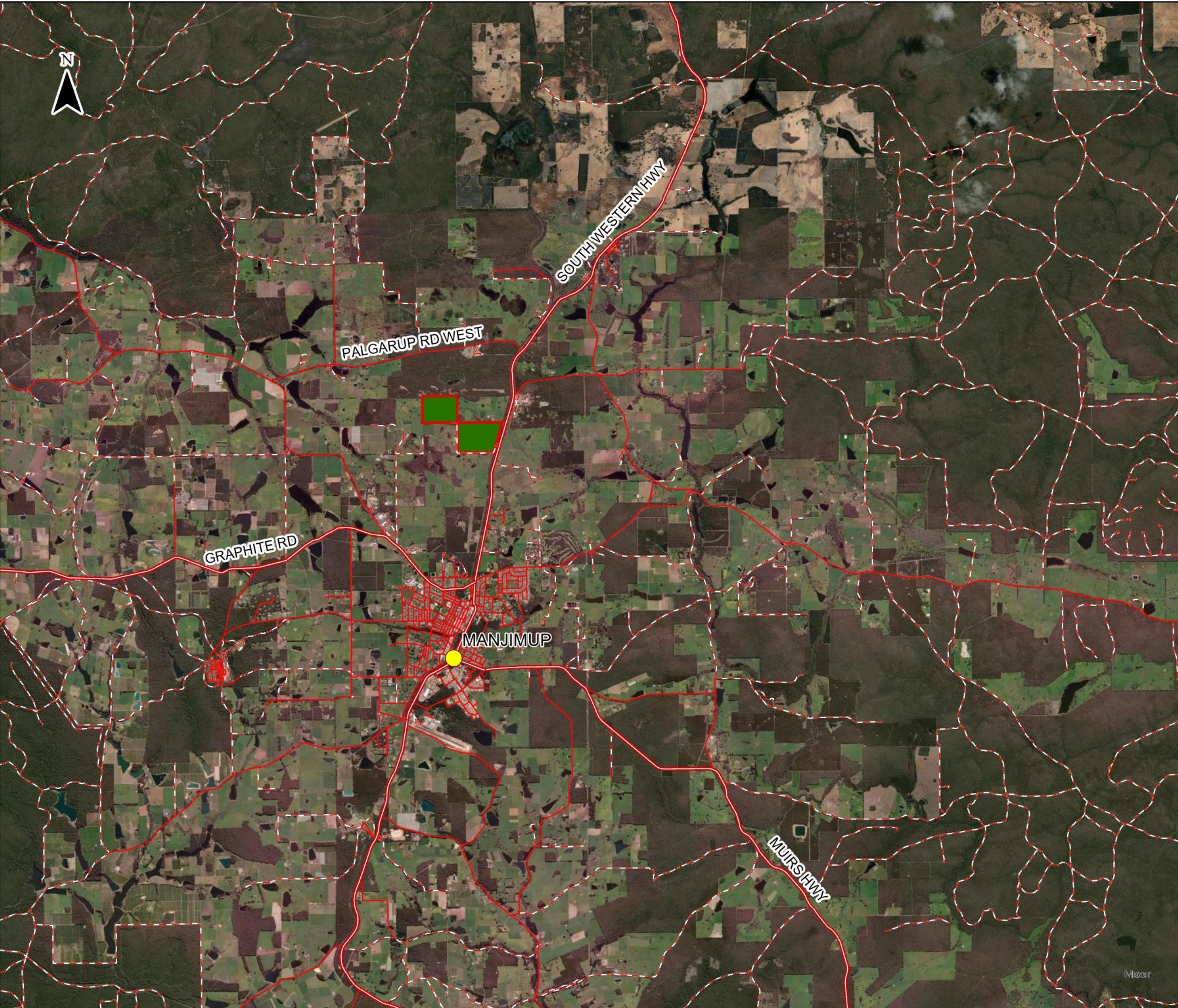
District Context Plan

Details

Lot 4156 on P15276 and Lot 6196 on P225713
SHIRE: Manjimup
LAND OWNER: Cultura Australia Pty Ltd
ACCESS: South Western Hwy

Legend

-  Major Town
-  Highway/Main Road - Sealed
-  Minor Road - Sealed
-  Minor Road - Unsealed
-  Stoiche Plantation



Kilometers

STOICHE PLANTATION Development Application

Details

Lot 4156 on P135276 and Lot 6196 on P225713
 SHIRE: Manjimup
 LAND OWNER: Cultura Australia Pty Ltd
 FIREBREAKS: External 15m
 Internal 6m
 ACCESS: South Western Hwy

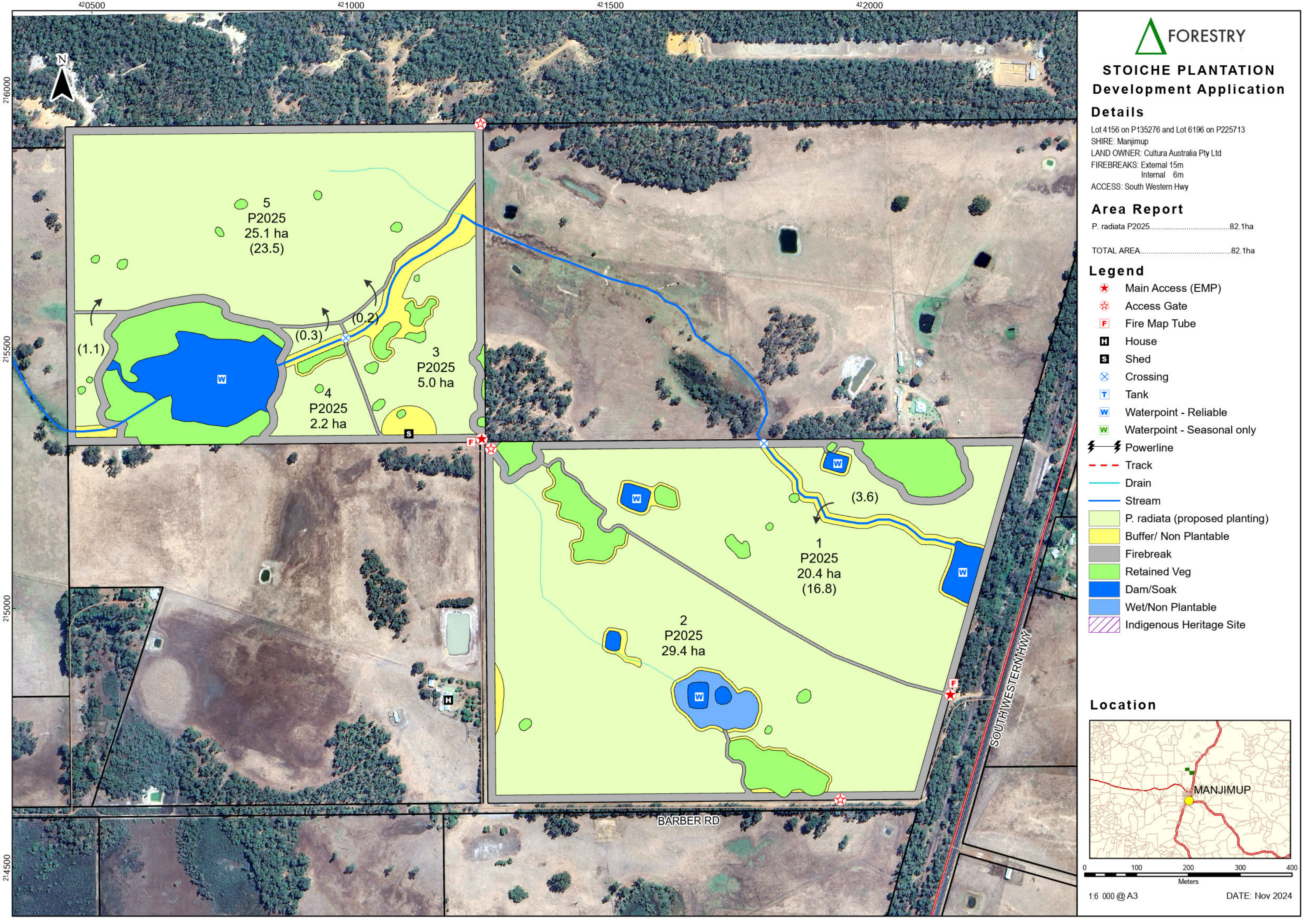
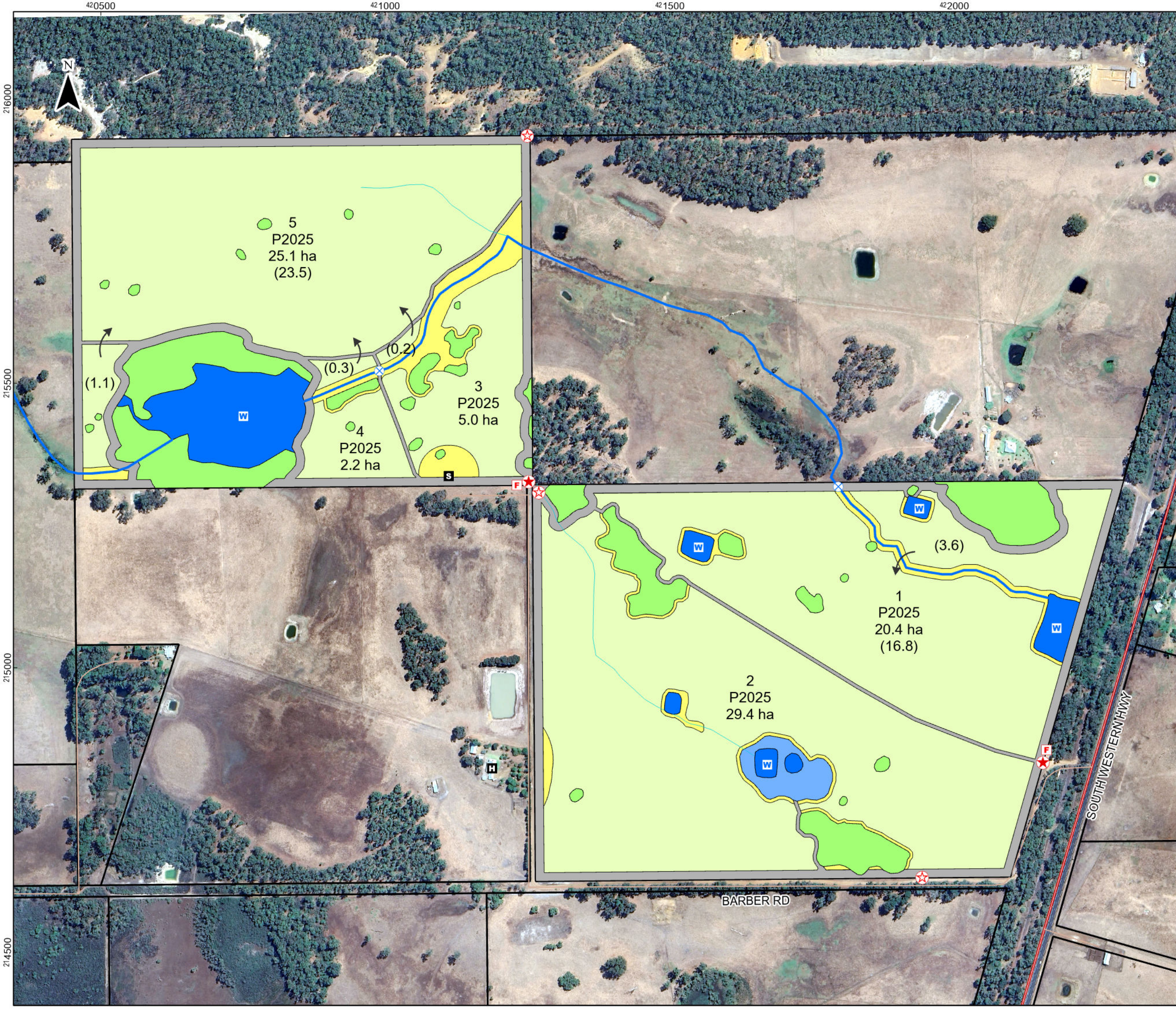
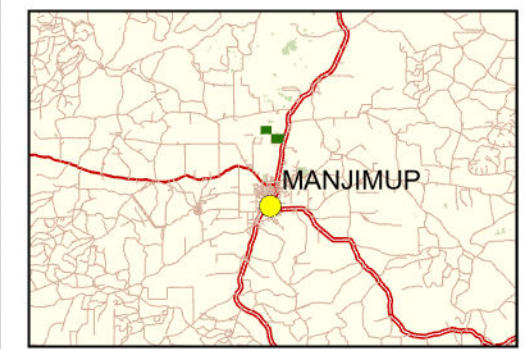
Area Report

P. radiata P2025.....82.1ha
 TOTAL AREA.....82.1ha

Legend

- Main Access (EMP)
- Access Gate
- Fire Map Tube
- House
- Shed
- Crossing
- Tank
- Waterpoint - Reliable
- Waterpoint - Seasonal only
- Powerline
- Track
- Drain
- Stream
- P. radiata (proposed planting)
- Buffer/ Non Plantable
- Firebreak
- Retained Veg
- Dam/Soak
- Wet/Non Plantable
- Indigenous Heritage Site

Location



STOICHE PLANTATION

Emergency Access and Egress Roads

Details

Lot 4156 on P135276 and Lot 6196 on P225713
 SHIRE: Manjimup
 LAND OWNER: Cultura Australia Pty Ltd
 FIREBREAKS: External 15m
 Internal 6m
 ACCESS: South Western Hwy

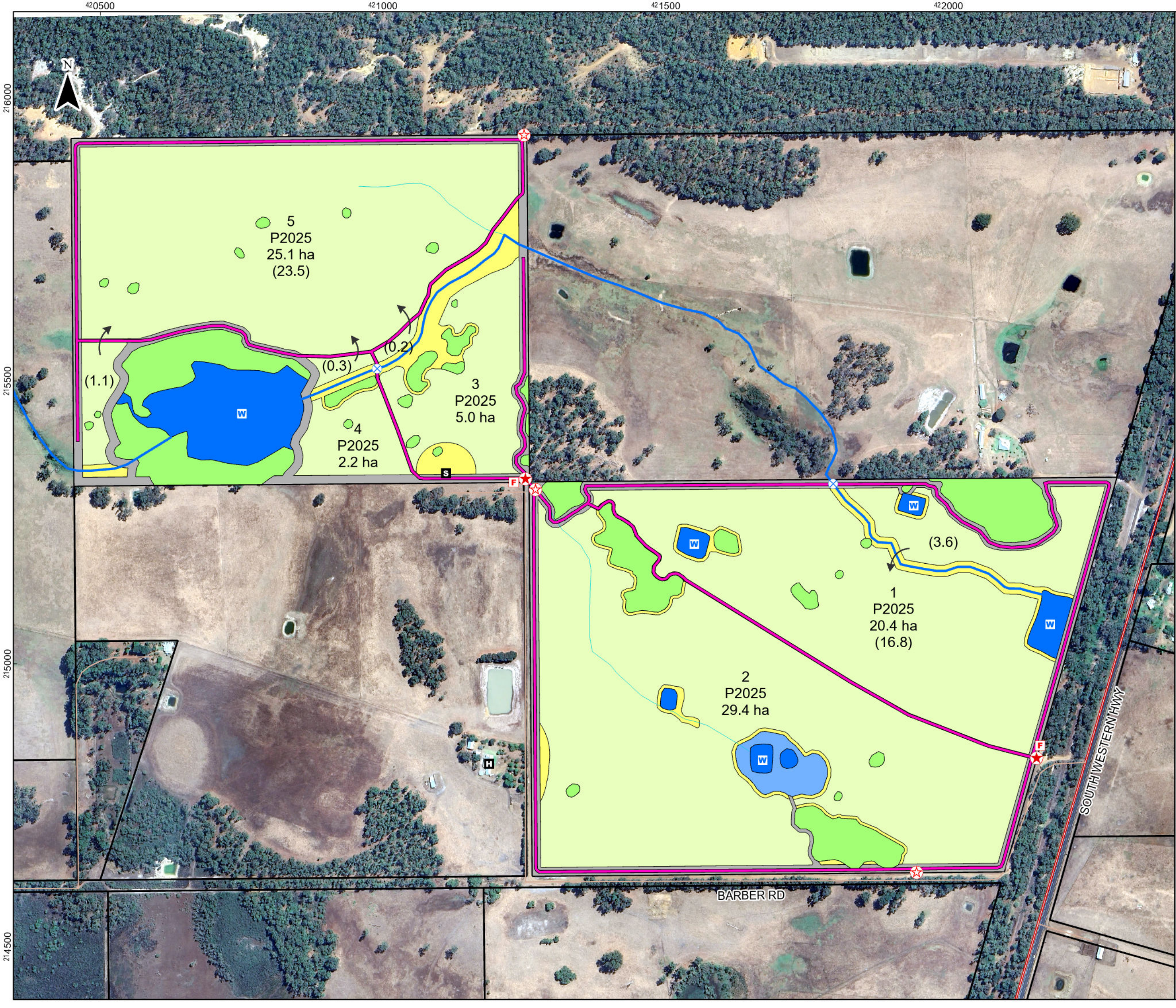
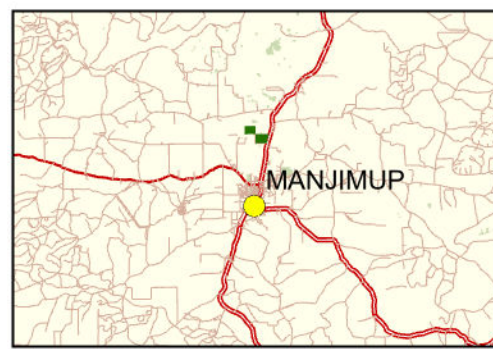
Area Report

P. radiata P2025.....82.1ha
 TOTAL AREA.....82.1ha

Legend

- Main Access (EMP)
- Access Gate
- Fire Map Tube
- House
- Shed
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- Emergency Access/Egress
- Powerline
- Track
- Drain
- Stream
- P. radiata (proposed planting)
- Buffer/ Non Plantable
- Firebreak
- Retained Veg
- Dam/Soak
- Wet/Non Plantable
- Indigenous Heritage Site

Location



**STOICHE PLANTATION
Plantation Design Plan**

Details

Lot 4156 on P135276 and Lot 6196 on P225713
 SHIRE: Manjimup
 LAND OWNER: Cultura Australia Pty Ltd
 FIREBREAKS: External 15m
 Internal 6m
 ACCESS: South Western Hwy

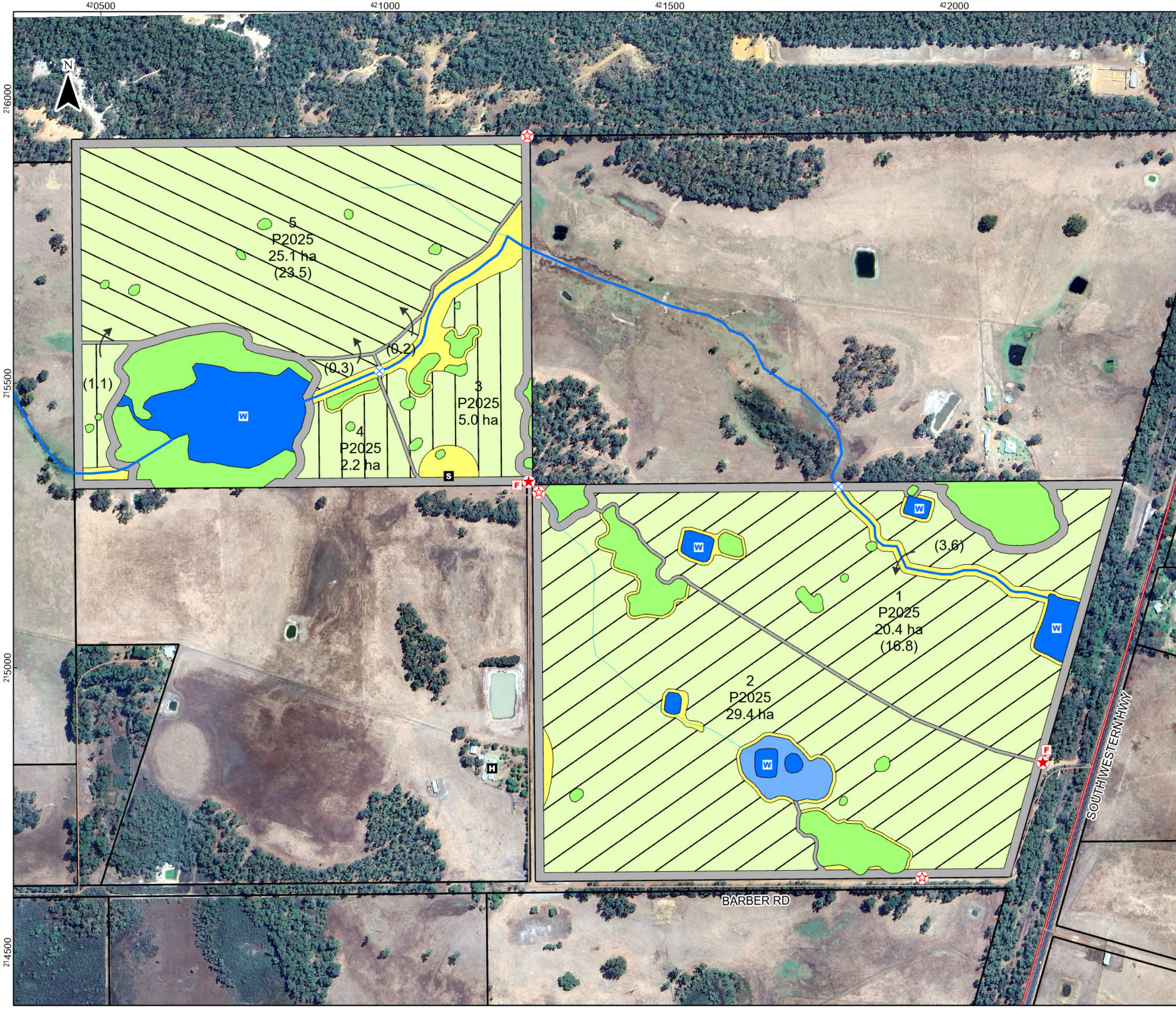
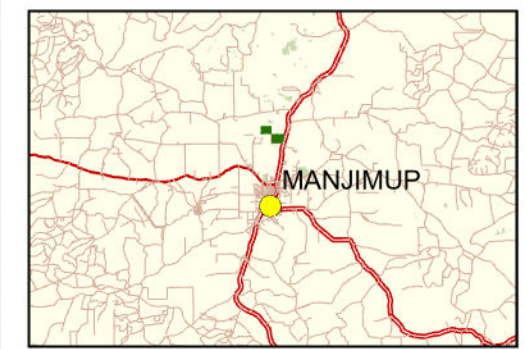
Area Report

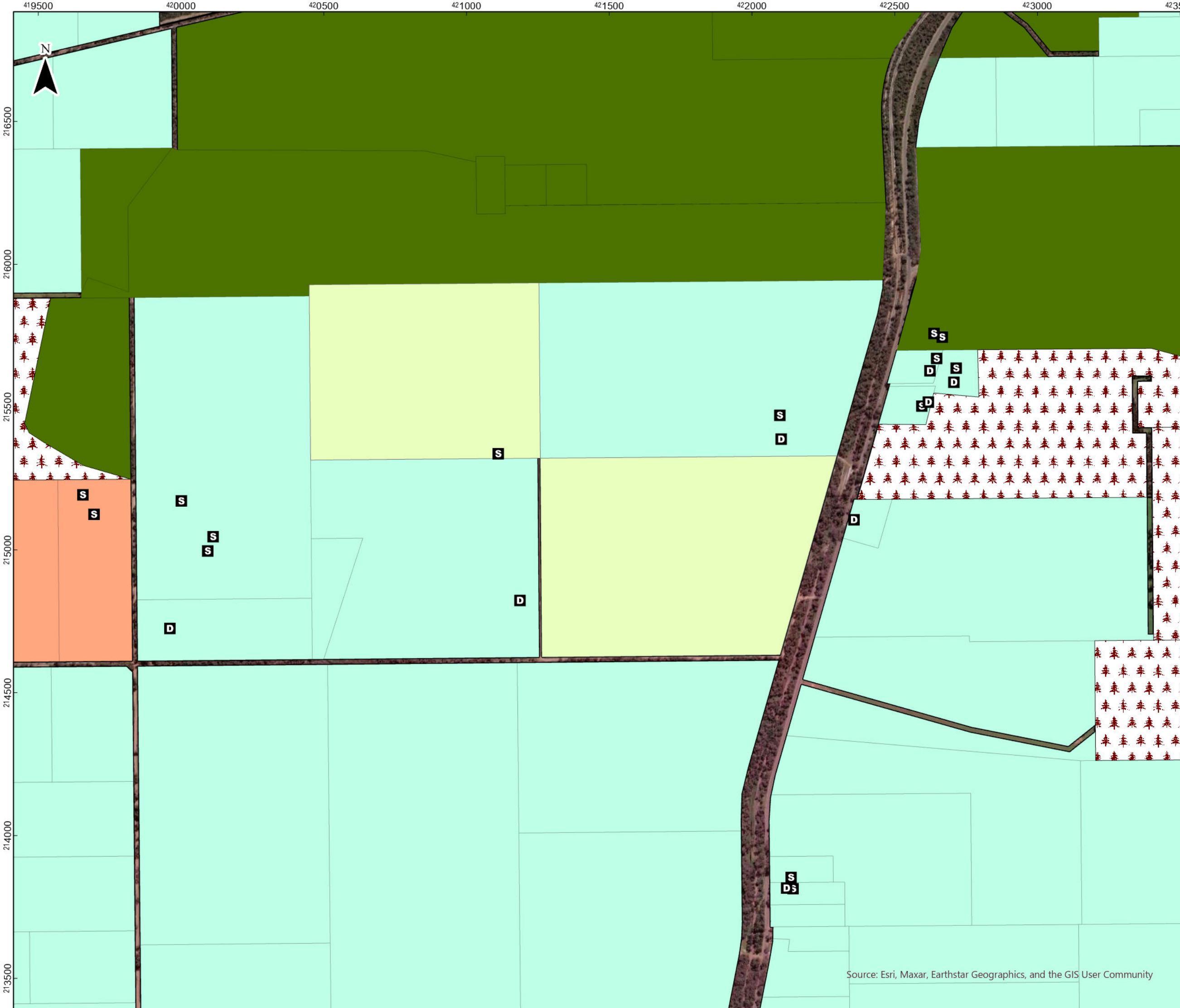
P. radiata P2025.....82.1ha
 TOTAL AREA.....82.1ha

Legend

- ★ Main Access (EMP)
- ☆ Access Gate
- F Fire Map Tube
- H House
- S Shed
- X Crossing
- T Tank
- W Waterpoint - Reliable
- W Waterpoint - Seasonal only
- Row Direction (Spacing 4.0m)
- ⚡ Powerline
- Track
- Drain
- Stream
- P. radiata (proposed planting)
- Buffer/ Non Plantable
- Firebreak
- Retained Veg
- Dam/Soak
- Wet/Non Plantable
- Indigenous Heritage Site

Location





STOICHE PLANTATION Land Use

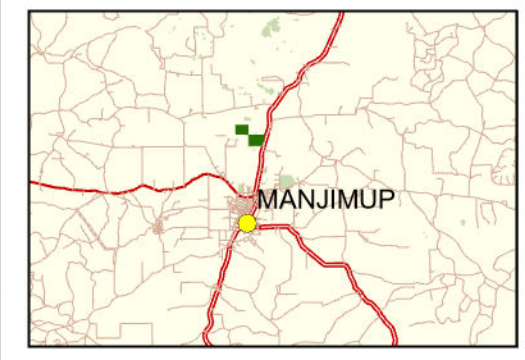
Details

Lot 415 on P135276 and Lot 6196 on P225713
 SHIRE: Manjimup
 LAND OWNER: Cultura Australia Pty Ltd

Legend

- D** Dwelling
- S** Shed
- Stoiche
- General Grazing
- Orchard
- Forested
- Softwood Plantation
- Softwood Plantation
- Cadastre
- Indigenous Heritage Site

Location



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Delta Forestry Operation Restrictions during Fire Danger Period

Region	Operation	Forecast Fire Danger Ratings (Fire Behaviour Index)				
		<12 No rating	12-23 Moderate	24-49 High	50-99 Extreme	>=100 Catastrophic
Blackwood	All operations within the managed estate.	No restrictions required.	The fire risk of all operations should be considered in the regions. Managers should consider ceasing operations by 1500 hours or earlier if the Fire Behaviour Index is expected to be >=40. Operations can continue beyond 1200 hrs where local weather conditions are recorded and considered satisfactory.	No Total Fire Ban in place, operations cease 1200 hours. Operations suspended for all 24hrs of the Total Fire Ban. No approval will be given to return to work until after the Total Fire Ban is over. Operations can continue beyond 1200 hrs where local weather conditions are recorded and considered satisfactory by the Forest Manager in consultation with the Duty Officer.	No operations will be authorised the day of the Total Fire Ban without the direct approval of the Forest Manager in consultation with the Duty Officer. This includes patrolling activities. The location of fire crews and control equipment to be given careful consideration.	
Capes						
Southern Forests						
Stirling West						

All operations subject to declared harvest and vehicle movement bans.



Subject Property
Lot 4156



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This plan is intended for internal Shire of Manjimup use only. It is not to be used as a site plan for planning, building or environmental health applications.

20/12/2024

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