

PLANS AND DOCUMENTS
referred to in the PDA APPROVAL

13 DEC 2013

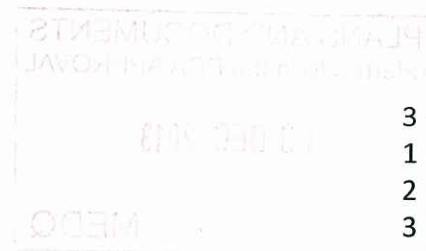
MEDQ

Bush Fire Risk Report

81-127 O'Dempsey Road
OCTOBER 2013

Contents

Objectives/Scope	3
Site Description	3
Figure 1 - site location (goggle maps)	3
Figure 2	1
Figure 3	2
Figure 4	3
Site Investigation	4
Figure 5	5
Bush Fire Management	9
Fire history and frequency	9
Nature and severity of bushfire hazard.	9
Mitigating Actions	9
Figure 6	10
Water	11
Figure 7 Single tank - Dual purpose set up	11
Photographs	12



Objectives/Scope

This report forms part of an application to construct a residence in a small area on a lot located at 81-127 O'Dempsey Road, South Ripley, also identified as Lot 194 SL 234. (refer to figure 1)

This report includes as analyses of bush fire risk and assessment.

Site Description

The lot is 40.5 has in size and zoned Rural under the Ipswich City Council. The application is for the construction of a residence on an existing cleared earth pad located on the highest point on the property. (refer to figures 2 and 3) Access is via an existing unsealed gravel road along the ridge for 400 metres. There are no services required as the residence will be dependant on gas and solar energy for power. No vegetation is proposed to be cleared.

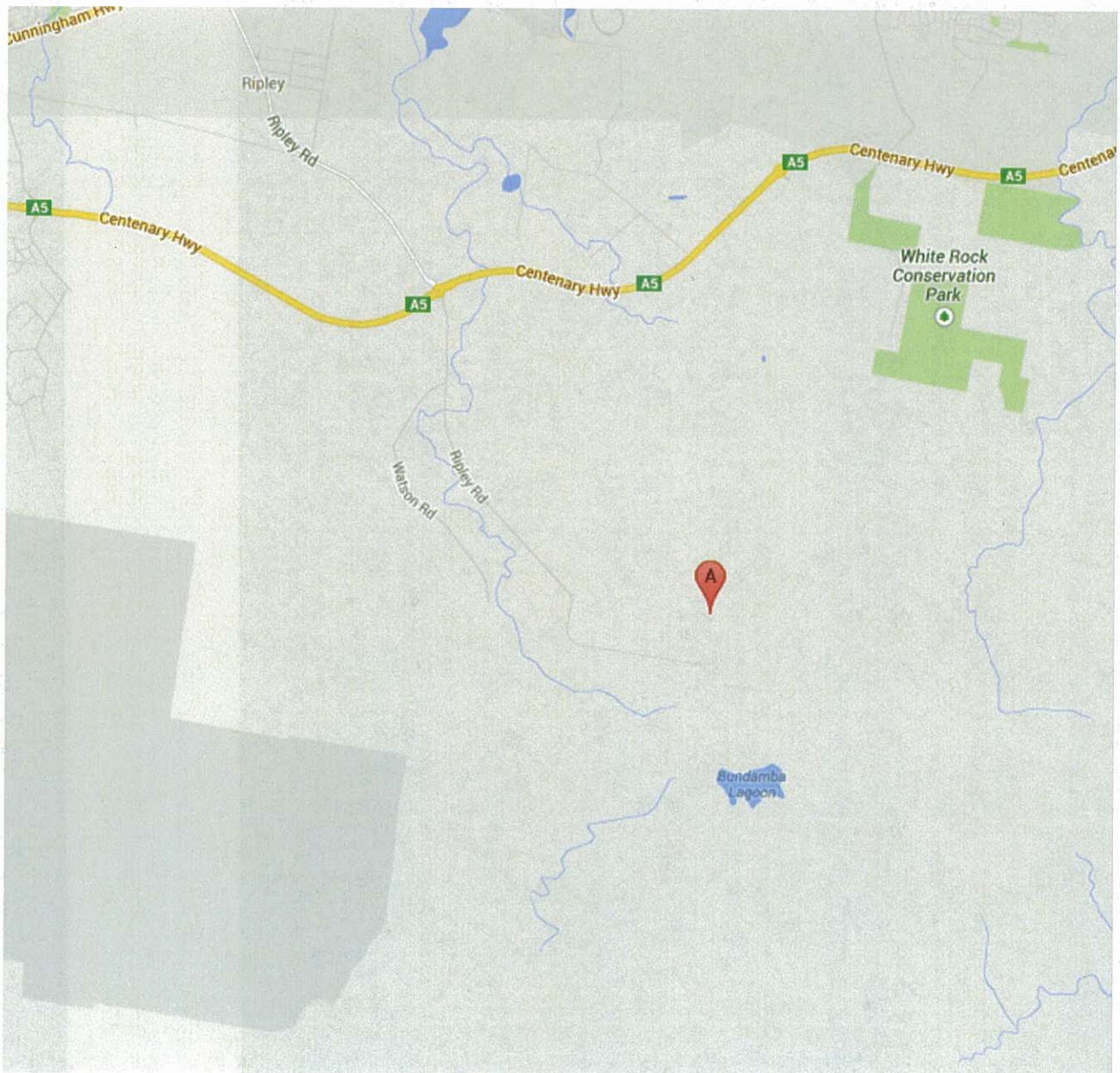


Figure 1 - site location (goggle maps)



Figure 2 Existing vegetation

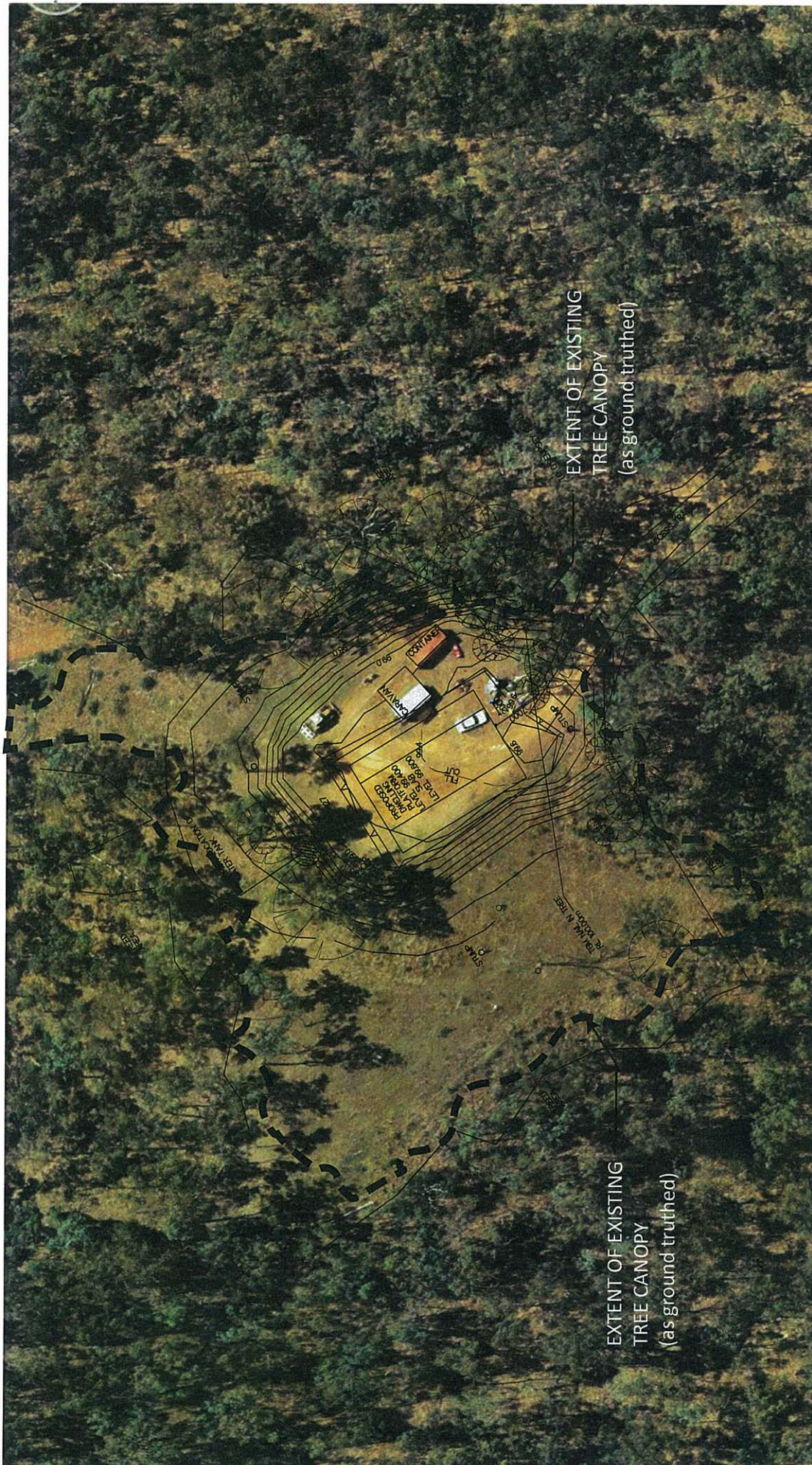


Figure 3 Lot and Existing Vegetation

Date: November 2013
 Issue A
 Scale: nts

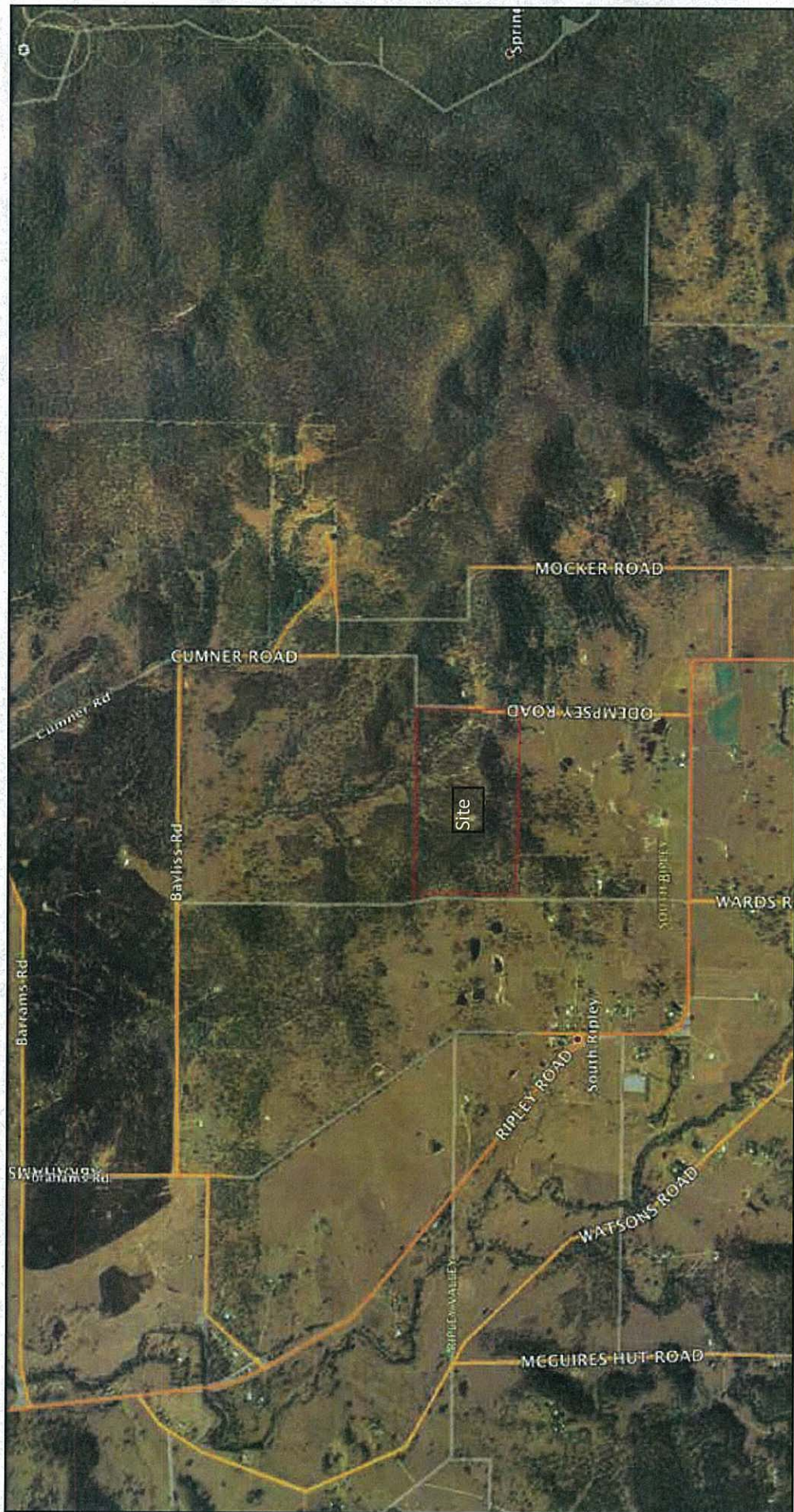


Figure 4 Context

The lot is has up to 80% cover of mixed eucalypt forest. Some parts including to the eastern side of the existing building pad is listed as regional ecosystem vegetation by the Department of Environment and Heritage Protection (DEHP). The mapping indicates that the extent of "of concern" Regional ecosystem (RE) passing through the proposed building location. The RE mapped is a mixed use polygon consisting of:

REs 12.9-10.2/12.9-10.7/12.9-10.19

		PERCENT
RE1	12.9-10.2	65
RE2	12.9-10.7	20
RE3	12.9-10.19	15

as well as Vegetation Management Act "essential habitat".

The Regrowth Vegetation Map - Version 2.1 mapping (refer to the appendix) shows the site contains high value regrowth vegetation containing "of concern" regional ecosystem. The extent of mapping shows that some of the RE included part of the proposed building location. Also refer to figures 2

Major patches of eucalypt forest vegetation in the site exist to north and northeast. Adjoining lots to the south and west are open grassland and scattered trees

Site Investigation

Bush Fire Hazard assessment was determined using the Queensland State Planning Policy 1/03 Mitigating the Adverse Impacts of Flood, Bushfire and Landslide and current fuel load assessment determined using the Overall Fuel Hazard Guide.

The lot contains patches of mixed eucalypts and open grasses areas with scattered trees. Bushfire hazard and fuels assessment were collected on the forested slopes to the east north

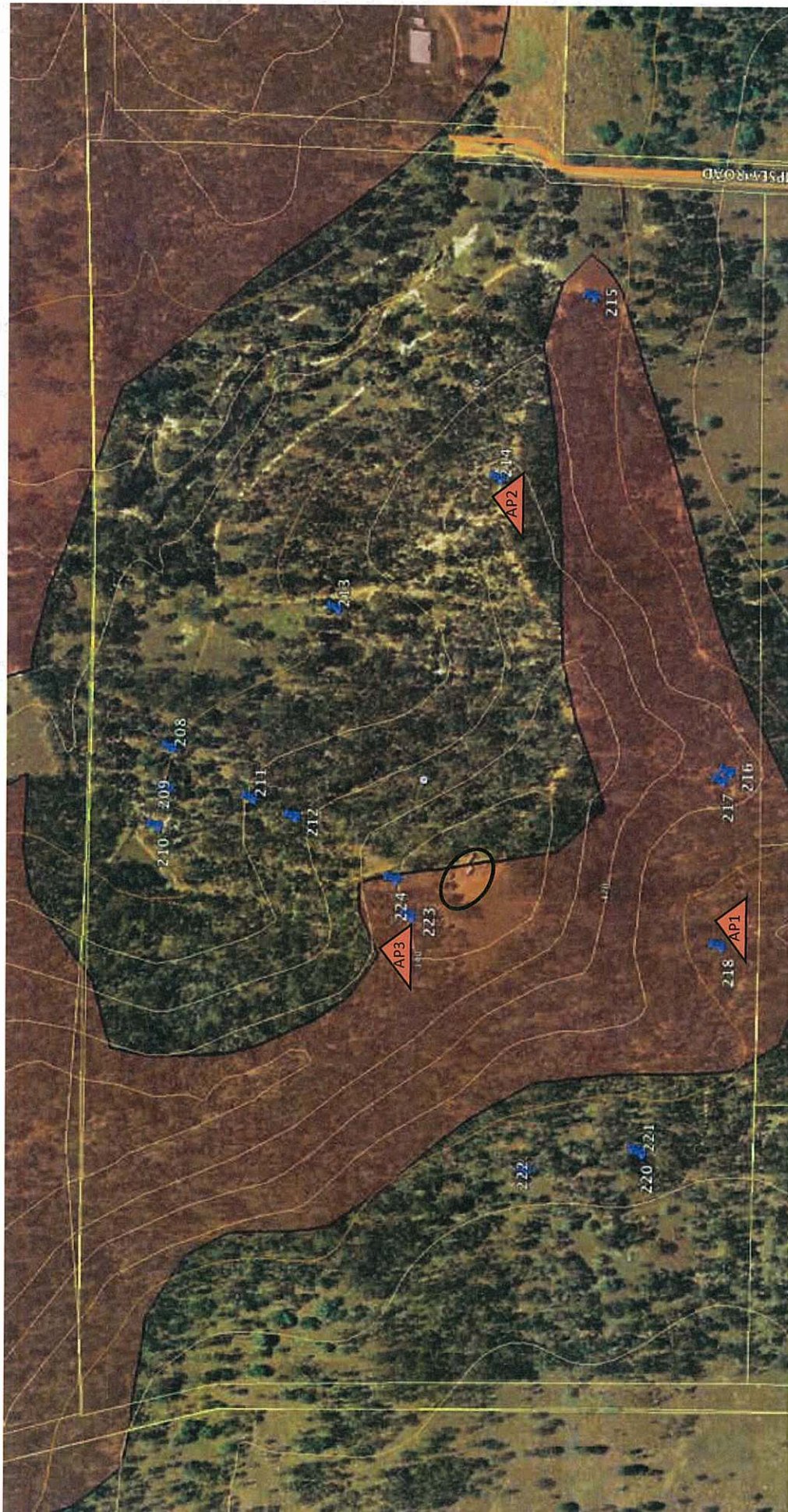


Figure 5 Lot & photograph locations

Date: November 2013
Issue A
Scale: nts



To be read in conjunction with figure 5

Assessment Point AP1			
13/11/2013			
Layer	Rating	Description/Comments	Equivalent Fuel Load t/ha
Surface and near surface	Low	short grass and 35% litter cover (< 15)	<4
Elevated	Low	no mid-storey, no notable grass (grazed and slashed)	0
Bark	Low-moderate	Mix of smooth bark (spotted gum) and iron barks (species contain minimal loosely held bark)	0
Overall rating	low-		4t/ha

Bush Fire Hazard Assessment	Location - AP1 13/11/2013	
Characteristic	Description	Hazard Score
Vegetation	Scattered Eucalypt woodland	6
Slope	7-9%	3
Aspect	east to south	0
Total Hazard Score		9

Severity of Bushfire hazard 'Medium'



Assessment Point AP2			
Layer	Rating	Description/Comments	Equivalent Fuel Load t/ha
Surface and near surface	Low	short grass and 35% litter cover (< 15)	<4
Elevated	Low	no mid-storey, no notable grass (grazed and slashed)	0
Bark	moderate	Mix of smooth bark (spotted gum) and iron barks (species contain minimal loosely held bark) some charred bark	2
Overall rating	low-		6t/ha

Bush Firea Hazard Assessmment		Location - AP2 13/11/2013	
Characteristic	Description	Hazard Score	
Vegetation	Scattered Eucalypt woodland	6	
Slope	12%	4	
Aspect	north to east	1	
Total Hazard Score		11	

Severity of Bushfire hazard 'Medum'



Assessment Point AP3			
Layer	Rating	Description/Comments	Equivalent Fuel Load t/ha
Surface and near surface	Low	short grass and 35% litter cover (< 15)	< 4
Elevated	Low	no mid-storey, no notable grass (grazed and slashed)	0
Bark	moderate	Mix of smooth bark (spotted gum) and iron barks (species contain minimal loosely held bark) some charred bark	2
Overall rating	low-		6t/ha

Bush Fire Hazard Assessment	Location - AP2 13/11/2013	
Characteristic	Description	Hazard Score
Vegetation	Scattered Eucalypt woodland	6
Slope	7-9%	3
Aspect	north to north west	3.5
Total Hazard Score		12.5

Severity of Bushfire hazard 'Medium'

Classification of Vegetation slope and Aspect scores have been assessed using the Overall Fuel Hazard Guide for South Australia. This guide in this report is used throughout Australia including local and regional shire councils. From the hazard scores in the tables produced above the Total Hazard Score of 7-11 corresponds to a 'Medium' severity bushfire hazard. A level of Medium severity within a Mixed eucalypt woodland with a mixture of different bark types (iron bark and smooth barked species) is relatively low. This is because there is no shrub layer and the grass layer is grazed and slashed.

Bush Fire Management

As identified a proportion of the property contains vegetation that is of concern regional ecosystem and Remnant vegetation containing of concern regional ecosystems as well as high value regrowth containing of concern . The Department of Environment and Heritage Protection (DEHP) Fire management guidelines for 12.9-10.7 are:

SEASON: Summer to winter. INTENSITY: Low to moderate. INTERVAL: 4-25 years. STRATEGY: Aim for 40-60% mosaic burn. Burn with soil moisture and with a spot ignition strategy so that a patchwork of burnt/unburnt country is achieved. ISSUES: The fire regime should maintain a mosaic of grassy and shrubby understoreys. Control of weeds is a major focus of planned burning in most areas. Careful thought should be given to maintaining ground litter and fallen timber habitats by burning only with sufficient soil moisture. Burning should aim to produce fine scale mosaics of unburnt areas. Variability in season and fire intensity is important, as well as spot ignition in cooler or moister periods to encourage mosaics.

Dry eucalypt forest/woodland with a grassy understorey it is recommended should be burnt in variable intervals of between 3 and 6 years to maintain a healthy eucalypt forest system.

Fire history and frequency

Through the property there is evidence of previous burning. Trunks carry scorch marks at the base as well higher on the trunks. There are stockpiles of logs in a few locations on this the property and on the eastern adjoining property that are scheduled for a controlled burn by the local Ripley Valley Fire Brigade. Fire markers indicated planned future burns for fire control are located on the northern slopes of the property. The last major controlled burn was overseen and controlled by the Ripley Valley Fire Brigade eighteen months previously. A small controlled burning of stockpiled logs was in September of this year.

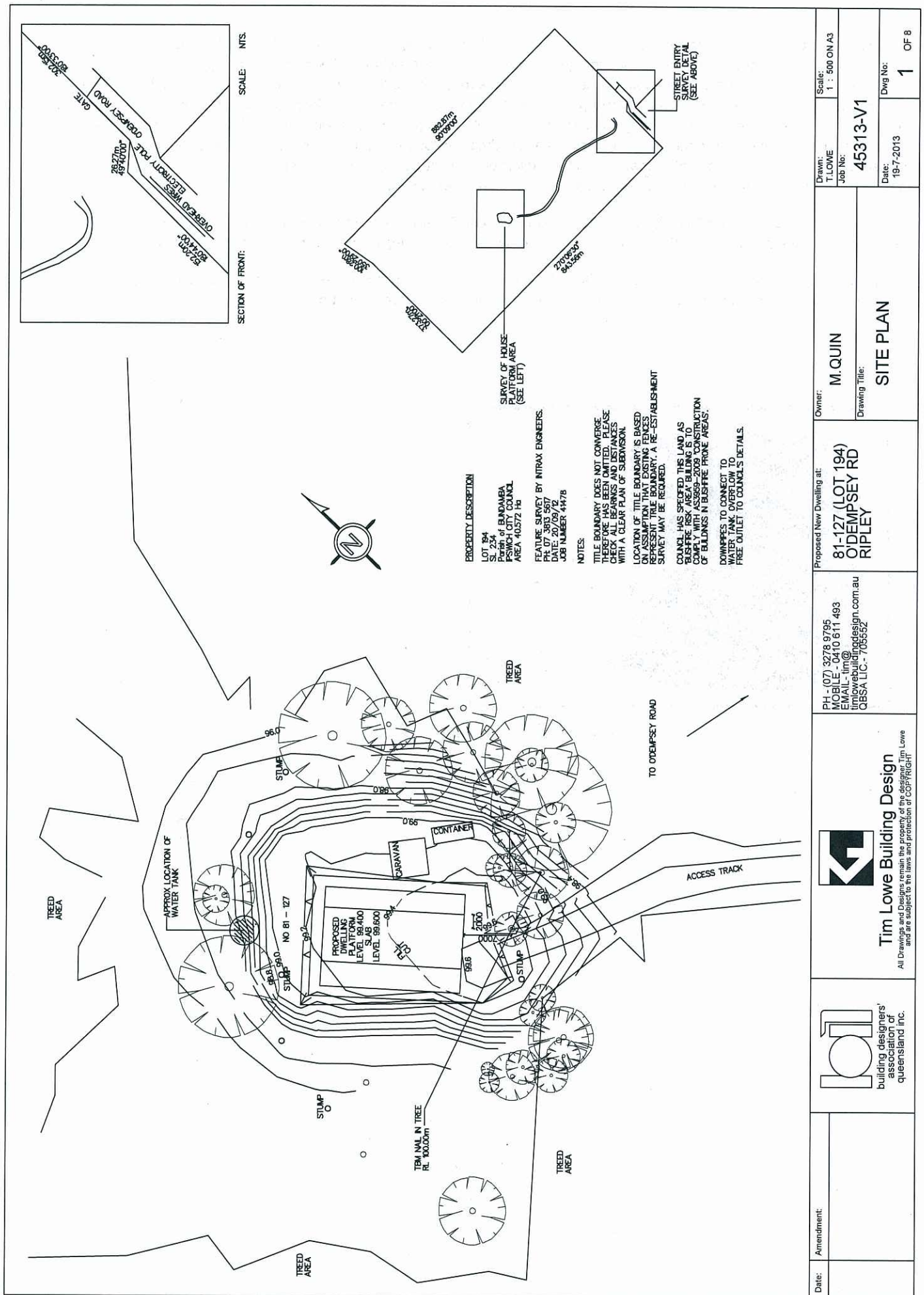
Nature and severity of bushfire hazard.

This site has a medium severity of bushfire hazard. Potential greatest risks are from the north to northwest. The property is surrounded by rural properties. Continuous eucalypt vegetation occurs to the north east and north west.

Mitigating Actions

The property is crisscrossed with gravel vehicular trails. The trails generally follow the natural contours and are 6-10 metres in width allowing for vehicles to pass safely if required at regular positions along the trails. The Ripley Valley Fire Station is located within 3.5 km from the property and conduct regular burns on the property for the purposes of hazard reduction and training. This presently in within the parameters of management for the appropriate regional ecosystem type and forest type. The ongoing hazard control burning program supervised by the Ripley Valley Fire Service as well as the continued practice of grazing and slashing presently conducted it is recommended to continue.

Following construction of the proposed residence it is recommended that present extent of trees to the surrounds is maintained. Trees or shrubby vegetation should be kept to a minimum, the existing slashed grass area is ideal.



Water

The site is not connected to a reticulated water supply system. Water storage of a minimum of 10000 litres is required for fire fighting purposes. Ideally this should be stand alone storage structure with a fire resistant rating of 60 minutes or greater and not connected to the domestic water system. It is acceptable to use the same tank for both fire fighting and domestic use, provided that the off take point for the domestic water supply is located as far up the side of the tank as to preserve at least 10 000 litres for fire use, below this point. the style of tank - above ground or underground are both suitable as long as the brigade is able to lower a suction line into the water tank itself. (the diameter of a suction line and fitting is approximately 200 mm) Refer to figure 5. The proposed location of the tank is indicated in figure 6. It is important that access to the tank is possible at all times. There should therefore be no planting of structures to the surrounds of the tank that would prevent access by an emergency vehicle.

The storage tank shall have a 50mm female 'camlock' coupling and 50mm ball or gate valve and be supported by either a diesel or petrol powered pump. Ideally this fire pump is compact and portable allowing it to be withdrawn into shelter when a fire front arrives.

On the property there are small dams located that have sufficient volume to contain water through extended drought periods. It is recommended that the dams and access to the are maintained in their present condition.

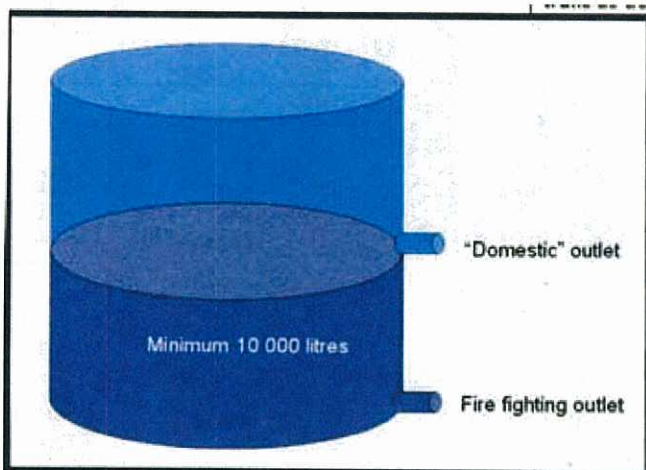


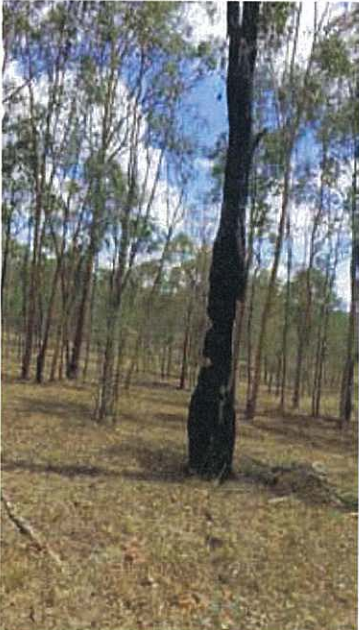
Figure 7

Single tank - Dual purpose set up

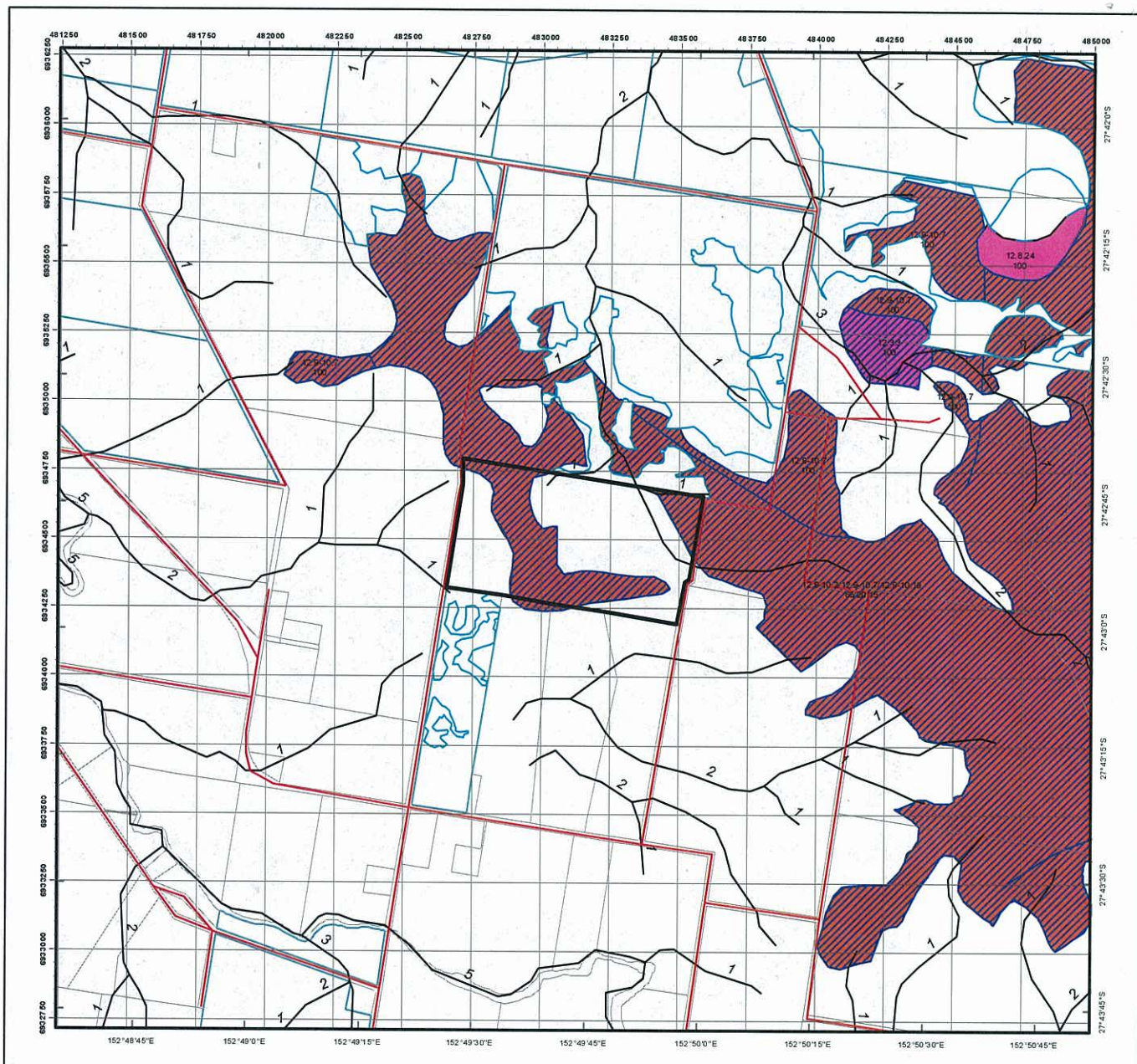
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Vegetation Management Act Regional Ecosystem and Remnant Map - Version 6.1

Based on 2006 Landsat TM imagery

Requested By: TREVOR@ENVIROSTUDIO.COM.AU

Date: 29 Oct 13 Time: 14.16.10

Centred on Lot on Plan:

194 SL234

Bioregion:
Southeast Queensland



LOCALITY DIAGRAM



0 200 400 600 800 1,000 m

Eastings and Northings based on Map Grid Australia GDA94 on UTM projection in zone 56.
Latitude and Longitude shown as Degrees, Minutes, Seconds based on GDA94 map datum.

A remnant map covers areas not covered by a regional ecosystem map.

Defined map areas are labelled with the regional ecosystem (RE) code along with the percentage breakdown if more than one RE occurs within the area. Detailed definitions of regional ecosystems are available from www.dnrm.qld.gov.au/REDD. Defined map areas smaller than 5ha may not be labelled.

Regional ecosystem linework has been compiled at a scale of 1:100 000, except in designated areas where a compilation scale of 1:50 000 is available. Linework should be used as a guide only. The positional accuracy of RE data mapped at a scale of 1:100 000 is +/-100 metres. The extent of remnant regional ecosystems as of 2006, depicted on this map is based on rectified 2006 Landsat TM imagery (supplied by the Statewide Landcover and Trees Study (SLATS), Queensland Government).

Some watercourse lines are derived from GeoScience Australia 1:250 000 mapping.

Disclaimer:

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

Additional information is required for the purposes of land clearing or assessment of a regional ecosystem map or PMAV applications. For further information go to the web site: www.dnrm.qld.gov.au/vegetation or contact the Department of Natural Resources and Mines.

Digital regional ecosystem data is available in shapefile format, for Lot on Plans from www.dnrm.qld.gov.au/REDDATA or from DNRM for larger areas.

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