



BUSH FIRE RISK ASSESSMENT

Lot 264 in DP 625326

***180 Mockingbird Road
PHEASANTS NEST***

***PREPARED BY
TATTERSALL LANDER
PTY LTD
DEVELOPMENT CONSULTANTS
November 2017***

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Executive Summary

This Bush Fire Risk Assessment has been prepared for a poultry farm at 180 Mockingbird Road, Pheasants Nest – Lot 264 in DP 625326 – which is located in the Wollondilly Local Government Area.

The proposal is located in the flame zone and therefore an alternate solution approach is required. The recommended alternate solution approach includes construction of the poultry sheds to BAL-FZ (AS3959-2009) as well as the preparation of an Emergency Management Plan.

1.0 INTRODUCTION

Tattersall Lander Pty Ltd has been commissioned to undertake a Bush Fire Risk Assessment for a proposed poultry farm at 180 Mockingbird Creek Road, Pheasants Creek, in the Upper Hunter Local Government Area (LGA) – the property is identified as Lot 10 in DP 1112611.

This Bush Fire Risk Assessment is based upon the guidelines as defined in the document, *Planning for Bush Fire Protection Guidelines 2006*, which has been written by the *NSW Rural Fire Service*. This assessment outlines the risk posed from bush fire, and hence identifies the constraints with regard to bush fire, thereby providing direction to the proposed development, and ultimately assessing the acceptability or otherwise of the development.

This report has been prepared by myself (Ben Folbigg); I have a Diploma in Planning for Bush Fire Protection and am BPAD accredited (Level 2) with the FPA Australia.

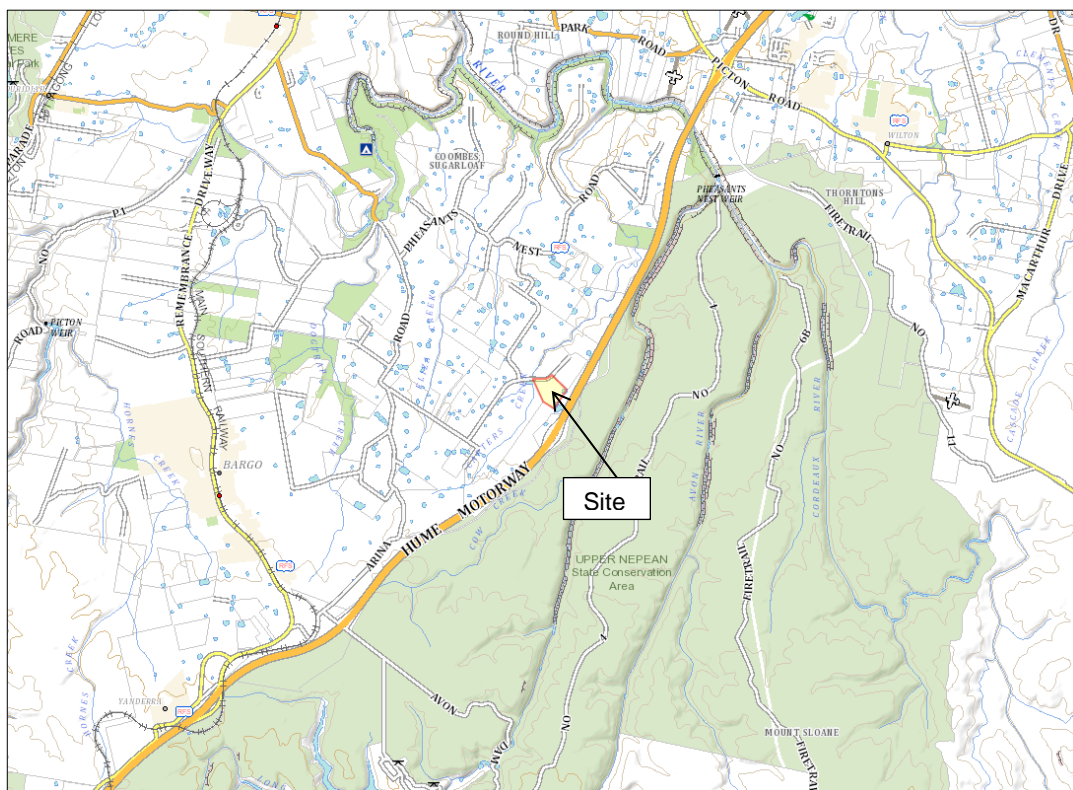


Figure 1 – Site location

2.0 METHODOLOGY

This assessment is conducted entirely in accordance with the guidelines, as outlined in *Planning for Bush Fire Protection* (NSW Rural Fire Service) 2006 (PBP).

This assessment:

- identifies the slope and aspect of the property;
- identifies all vegetation categories within 140 metres of the site;
- determines the bush fire attack category which applies to the site;
- identifies Asset Protection Zones/Setbacks;
- identifies the bush fire Construction level required in relation to the above for the proposed development (AS 3959-2009)

This proposal is for a non-habitable use and therefore the proposal simply needs to meet the aims and objectives of PBP. A cursory inspection of the proposal clearly shows that the proposed structures will be located in flame zone, and therefore, although the assessment has been made via the “acceptable solution” path to confirm this, ultimately this proposal must be an alternate solution.

3.0 SITE DESCRIPTION

The subject site includes a dwelling, an intensive plant growing facility, and four (4) farm dams. Vegetation on the site is a combination of relatively heavily vegetated areas (in the north west of the site) to areas which are relatively clear of vegetation. The area of the site relevant to the proposal is best described as containing woodland.

The topography of the site is gently sloping in a general north west direction.

Aerial photographs and a topographic map of the site and surrounds are provided in Appendix A. Appendix B includes photographs of the site and surrounds and the approximate location and direction of these photographs is depicted on the aerial photographs.

The site is located in the Wollondilly LGA and hence is afforded a Fire Danger Index (FDI) rating of 100.

4.0 THE PROPOSAL

The proposal is for a poultry farm. Plans of the proposal are included in Appendix C.

5.0 SITE ANALYSIS

5.1 Northern Aspect

The northern aspect presents, from the northern boundary of the subject site presents Mockingbird Road, followed by similar rural properties which contain various vegetation types, with forest being the worst case from a bush fire perspective. The proposal is located approximately 150 metres from the northern boundary and the vegetation within this area is predominantly regrowth forest and therefore clearing is permissible.

The slope to the north is in the >0-5 degree category.

5.2 Southern Aspect

The southern boundary actually consists of a south eastern and a south western boundary. The development is to be located 25 metres from the south eastern boundary and 21 metres from the south western boundary. The vegetation beyond the south eastern boundary contains grassland for more than 140 metres. The vegetation beyond the south western boundary contains forest.

A slope assessment reveals a slope in the upslope/flat category to the south east and in the >0-5 degree category to the south west.

5.3 Eastern Aspect

The eastern aspect is in reality a combination of north eastern and south eastern aspects; the south eastern aspect has been discussed above. The north eastern aspect contains the subject site for more than 140 metres. There is no vegetation of significance within this area and therefore no requirement for any slope assessment. In addition it is noted that the nursery structures are greater than 10 metres from this proposed development.

5.4 Western Aspect

The western aspect includes the south western aspect, as discussed above, and the western aspect presents approximately 18 metres until the boundary, after which there is forest.

The slope to the west averages approximately 10 degrees, however, there is a small area which has a slope of approximately 19 degrees, and therefore the average slope category is to be >15-20 degrees.

6.0 SITE ANALYSIS

Table 1 – Asset Protection Zones and BAL requirements

Aspect	Vegetation Classification	Slope (degrees) Under the Vegetation	Potential APZ (metres)	BAL Requirement
North	Forest	>0-5	<24	BAL-FZ
			24-<32	BAL-40
			32-<43	BAL-29
			43-<57	BAL-19
			57-<100	BAL-12.5
			100-150	BAL-Low
South East	Grassland	Upslope/flat	25* 15**	BAL-12.5
South West	Forest	>0-5	20.9* 10.9**	BAL-FZ
North East	N/A	N/A	>140	BAL-Low
West	Forest	>15-20	17.8* 7.8**	BAL-FZ

* This is based on the vegetated mound being constructed using vegetation types, densities and layouts such that this is considered acceptable as part of an APZ and therefore not considered a bush fire threat

** This is based on the vegetated mound representing or contributing towards a bush fire hazard, but not altering the vegetation classification

7.0 Services

7.1 Water

The subject site is not connected to the reticulated water system. The proposal is to incorporate a large dam which will in effect provide a static water supply in excess of 24 megalitres. This is considered acceptable.

7.2 Electrical

Electrical supply is connected to the subject site and this electrical supply shall be extended to the poultry sheds; this electrical supply shall be either underground or aerial. If the electrical supply is aerial, it shall be sufficiently distant from any vegetation so that it does not pose a fire threat and therefore shall be compliant with PBP.

7.3 Gas

Reticulated gas is not available to the site, however, the proposal is to include bottled gas on a large scale. The installation of this bottled gas is to be undertaken in such a way that it is compliant with *PBP*, this includes:

- *Bottled gas is installed and maintained in accordance with AS 1596 and the requirements of relevant authorities.*
- *Metal Piping is to be used.*
- *All fixed gas cylinders are kept clear of all flammable materials to a distance of 10 metres and shielded on the hazard side of the installation.*
- *If gas cylinders need to be kept close to the building, the release valves are directed away from the building and at least 2 metres away from any combustible material.*
- *Connections to and from gas cylinders are to be metal.*
- *Polymer sheathed flexible gas supply lines to gas metres adjacent to buildings are not used.*

8.0 ACCESS

8.1 Road Capacity

The site is accessed off Mockingbird Road which a bitumen sealed two way though road and this road is capable of carrying fully laden fire fighting vehicles.

8.2 Road Linkages to Fire Trails

There are no fire trails on the site and no fire trails are required.

8.3 Emergency Access / Egress

In the event of a bush fire emergency, access to and egress from the site is to be via Mockingbird Road. This is considered acceptable. It is noted that access to parts of the site will exceed the 200 metre stipulated maximum, however, there is no alternative in this regard and given the nature of these types of developments, this is not unusual and should be considered acceptable.

9.0 DISCUSSION and RECOMMENDATIONS

The proposal is for a poultry enterprise which is to include seven (7) sheds, a large farm dam, a vegetated mound, and all associated infrastructure.

The proposal is to be located in Flame Zone and also the access length within the site is technically non-compliant.

The following recommendations are made as an alternate solution:

1. The sheds are to be constructed to BAL-FZ (AS3959-2009).
2. An Emergency Management Plan (EMP) is to be prepared prior to occupation of the sheds; this EMP is to be kept on site at all times and a copy is also to be provided to the local branch of the RFS.
3. Fire resistant species are to be utilised on the vegetated mound.
4. The area between the vegetated mound and for a minimum of 20 metres in all other areas is to be managed as an inner protection area.

Ultimately the RFS is the determining authority with regard to approving this alternate solution, however, it is considered that the proposed measures should result in an acceptable outcome for a development of this nature.

10.0 CONCLUSION

This assessment was undertaken for a proposed poultry growing enterprise to be located at 180 Mockingbird Road, Pheasant Nest, in the Wollondilly LGA – Lot264 in DP 625326).

The proposal is not compliant as an acceptable solution and therefore must be an alternate solution. It is considered that the proposed alternate measure put forward should result in an acceptable outcome from a bush fire planning perspective.

11.0 DISCLAIMER

All effort has been made to ensure the accuracy of this report, however, it is noted that bush fires can be unpredictable and this report in no way implies that any part of the proposed development is totally safe from fire.

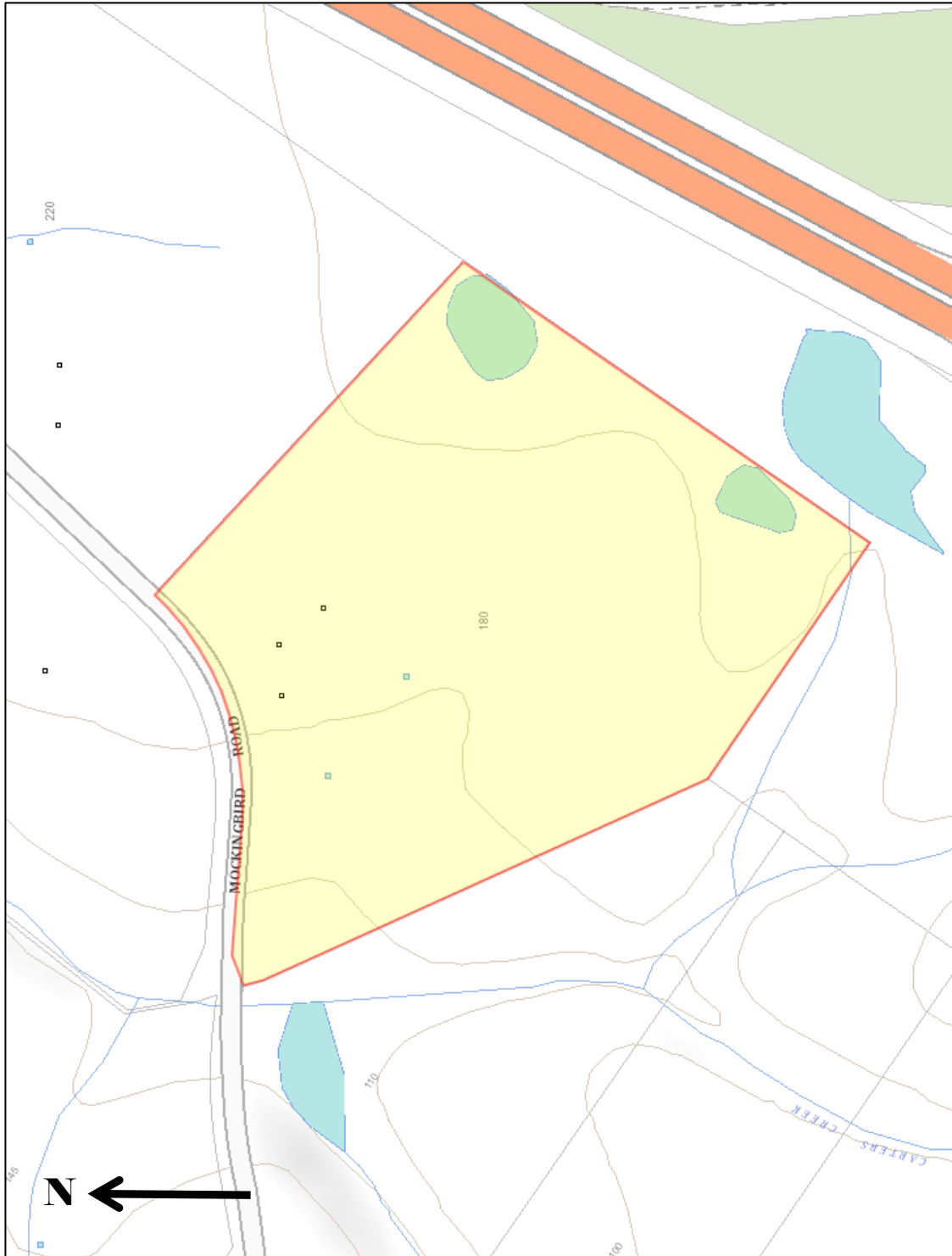
Additionally it is noted that despite the site details at the time of writing this report, the situation may change; factors resulting in change to bush fire hazard include (but are not limited to) vegetation regrowth and improper maintenance of asset protection Zones.

No responsibility is accepted or implied for damage to, or loss of, life and/or property at any time resulting from bush fire or bush fire related issues (or any other factors) on this site.

Appendix A: Aerial photographs and Topographic Map







Appendix B:

Photographs



Photograph 1



Photograph 2



Photograph 3



Photograph 4



Photograph 5



Photograph 6



Photograph 7



Photograph 8



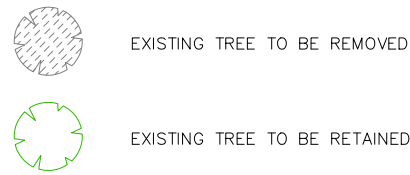
Photograph 9

Appendix C:

Site Layout Plan

LEGEND:

Existing Contour (1m Interval) — 275 —
Design Contour (0.2m Interval) — 275 —

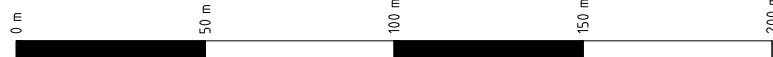
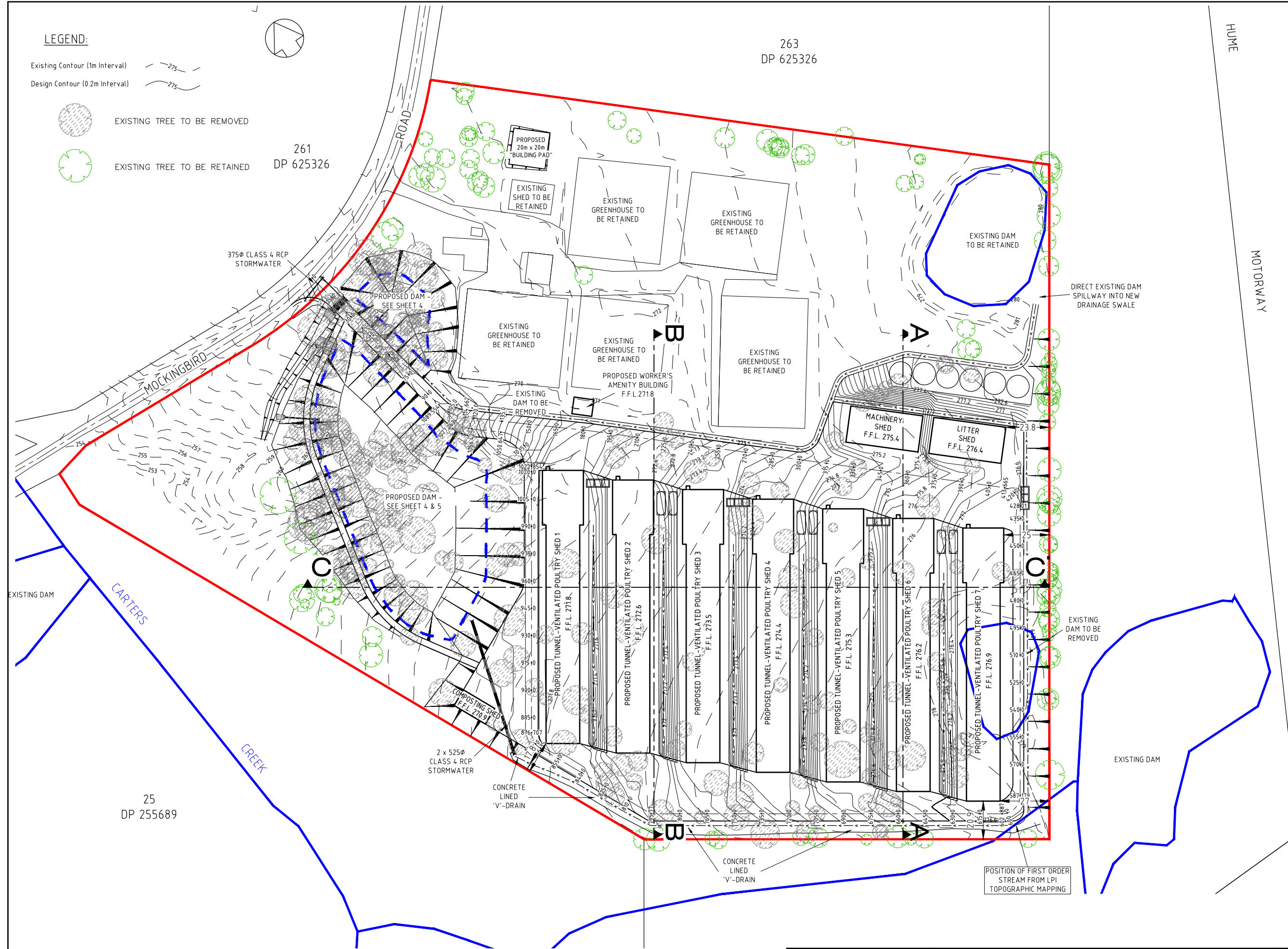


261
DP 625326

263
DP 625326

HUME

MOTORWAY



REV	DETAILS OF AMENDMENT	DESIGNED	DRAWN	CHECKED	APPROVED	DATE
A	Original Issue	AV	AV			
* Denote the original signature and date when revision was issued.						

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PLAN SHOWING PROPOSED POULTRY FARM
SHED LAYOUT
LOT 264 IN DP 625326
180 MOCKINGBIRD ROAD, PHEASANTS NEST

COUNCIL WOLLONDILLY	REFERENCE 21700099
PARISH BARGO	SHEET SIZE A3
SCALE 1:2000 on A3	SHEET No. 3
DATE : Plotted 11/09 27/10/17	

CLIENT: LIMOUSIN No.1 PTY LTD JOB No.: 216307 COMPUTER FILE: S:\Clients\2016\216307\0wg\216307 Design - 7 Sheds.dwg