

Fernhill Estate

Western Precinct Bushfire Assessment

June 2013



Table of contents

1.1 Purpose of this report	
1	
1.2 Bushfire Prone Land	1
1.3 Description of the property	1
1.4 Scope and limitations	4
2. Hazard Assessment	5
2.1 Vegetation	5
2.2 Effective Slope	8
2.3 Fire Weather	8
Bushfire Protection Measures for the Proposal	10
3.1 Asset Protection Zones	10
3.2 Heat Shielding	12
3.3 Services	12
3.4 Access	12
3.5 Housing Construction Standards	14
4. Summary Assessment of Compliance	15
5. References	17
Table index	
Table 1 Vegetation Type, Formation and Classification	5
Table 2 APZ dimensions	10
Table 3 AS 3959:2009 BAL Calculation	14
Table 4 Compliance with Planning for Bushfire Protection 2006	15
Figure index	
Figure 1 Locality Map	2
Figure 2 Bushfire Prone Lands Mapping	3
Figure 3 Vegetation Type Map	6
Figure 4 Vegetation photographs	7
Figure 5 Slope Classes	9
Figure 6 Subject land layout including APZ	

1. Introduction

1.1 Purpose of this report

This is a bushfire assessment report for the Western Precinct Fernhill a proposed 38 lot subdivision, 88-89 Nepean Gorge Drive/Fairlight Road Mulgoa (part Lot No. 1 Plan No. 549247 and part Lot No. 31 Plan No. 237163) (hereafter referred to as the 'subject land') (Figure 1). The subject land is zoned as E3 Environmental Management.

This report has been prepared in accordance Section 100B of the *Rural Fires Act (1997)* and Section 91 of the *Environmental Planning and Assessment Act* (EP&A Act) to meet the aims and objectives of *Planning for Bushfire Protection 2006* (NSWRFS 2006) (PBP).

This report replaces previous assessments prepared for the subject land and issued to Penrith City Council.

1.2 Bushfire Prone Land

The subject land is designated as bushfire prone (See Figure 2) due to the presence of bushfire prone land within and adjoining the site. A site-based hazard assessment was used to confirm bushfire prone vegetation adjoining the subject land (See Section 2).

1.3 Description of the property

The location of the subject land is provided in Figure 1 and consists of a northern and southern section divided by a proposed biobanking offset area to be managed as native vegetation.

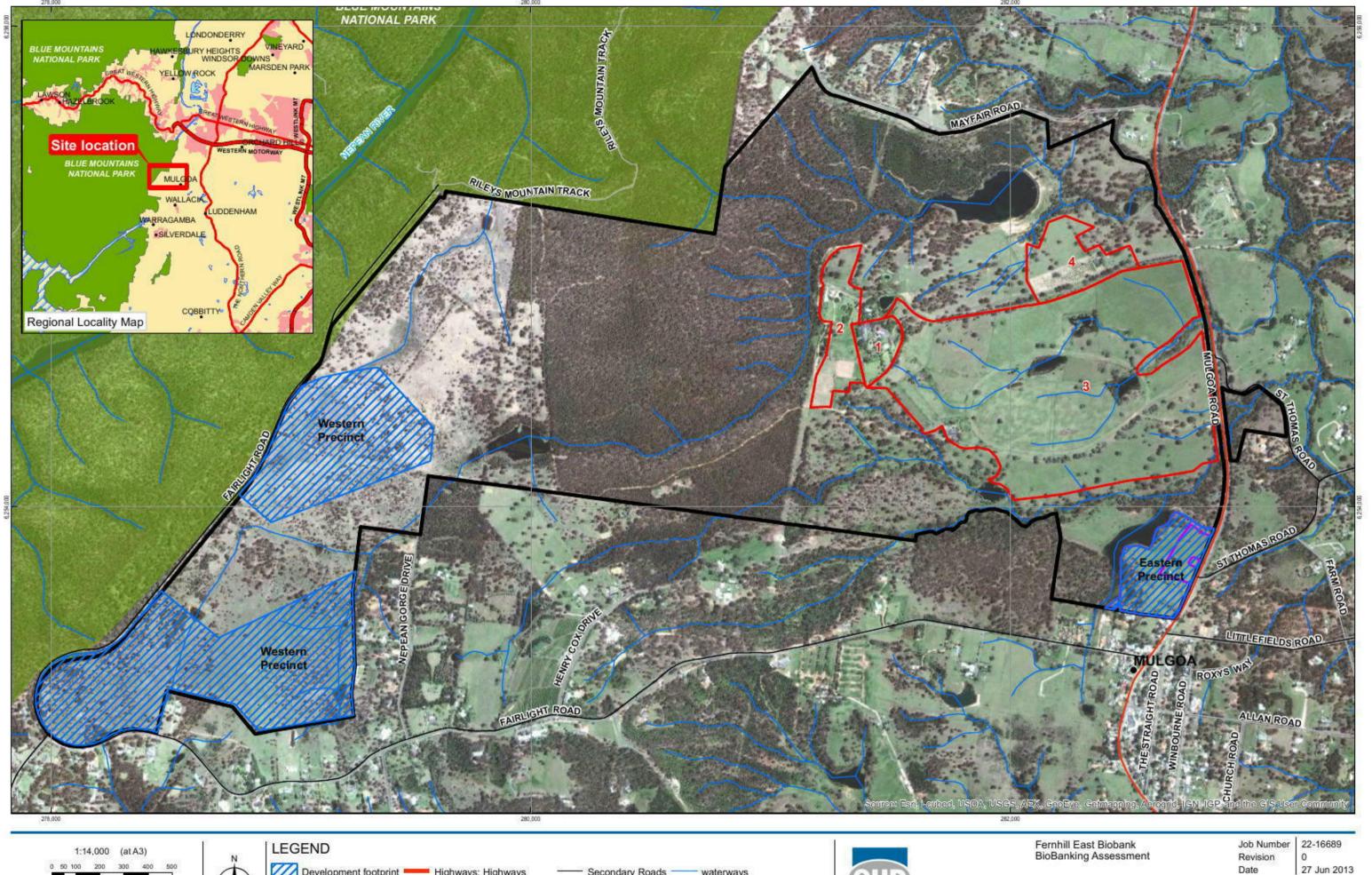
The northern section of subject land is bounded to the:

- West by a Fairlight Road / Nepean Gorge Drive an all-weather two wheel drive formed access road. The bushland west of this road is the Blue Mountains National Park.
- North, east and west by woodland and forest within the Fernhill Estate that has
 historically been grazed and will be used for grazing, equestrian activities, occasional
 public events and biodiversity conservation.

The southern section of subject land is bounded to the:

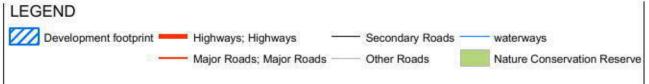
- West by a Fairlight Road / Nepean Gorge Drive an all-weather two wheel drive formed access road. The bushland west of this road is the Blue Mountains National Park.
- North by exotic grassland and open forest within the Fernhill Estate that has historically been grazed and will be used for grazing, equestrian activities, occasional public events and biodiversity conservation; and
- East and south by private rural-residential lots.

Access to both sections of subject land is via Fairlight Road and Nepean Gorge Drive, local twoway access roads.



Map Projection: Transverse Mercator Horizontal Datum: Geocentric Datum of Australia (GDA) Grid: Map Grid of Australia 1994, Zone 56







Locality Map

Figure 1

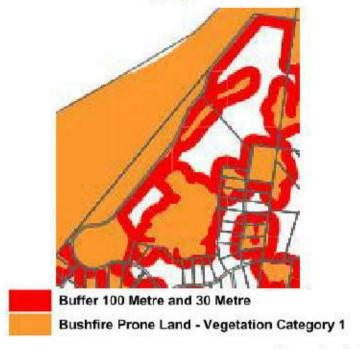
G-122116709/GISIMaps/2216648_Z013_FernHill_Locality_map_RevA.mxd

© 2010. While GHD has taken care to ensure the accuracy of this product, GHD, GOOGLE EARTH PRO and TOUGH MUDDER, make no representations or warranties about its accuracy, completeness or suitability for any particular purpose.

GHD, GOOGLE EARTH PRO and TOUGH MUDDER, cannot accept siability of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred as a result of the product being inaccurate, incomplete or unsuitable in any way and for any reason.

Data Source: Geoscience Australia: 250k Data - Jan 2011; Tough Mudder: Course Route, Obstacles. Car Parking and Base Area; 2013;ESRI World Imagery, Accessed: 2013; GHD: Vegetation, 20-12-2012. Ecological: Grevillea Locations digitised from hard copy. Created by: sidwcodger

Figure 2 Bushfire Prone Lands Mapping



Source: Penrith City Council Website¹

1.3.1 Environmental Features

The vegetation community within and adjoining the subject land consists of

- Forest Red Gum Grey Box shrubby woodland on shale (HN524) (potentially Moist Shale Woodland in the Sydney Basin Bioregion Endangered Ecological Community (EEC)#)
- Forest Red Gum Rough-barked Apple grassy woodland on alluvial flats (HN526) (potentially River-Flat Eucalypt Forest on Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions EEC#)
- Narrow-leaved Ironbark Broad-leaved Ironbark Grey Gum open forest (HN556) (potentially Shale/Sandstone Transition Forest EEC#); and
- Cleared land / exotic grassland

potentially listed as EECs under the schedules of the NSW Threatened Species Conservation Act 1995 or Environment Protection and Biodiversity Conservation Act 1999.

The threatened species Grevillea juniperina subsp. juniperina is recorded from the subject land.

No Aboriginal heritage items are known by the applicant to occur on the subject land.

Further details of vegetation including a map are provided in Section 2.1

1

http://www.penrithcity.nsw.gov.au/uploadedFiles/Content/Website/Our Services/Planning and Development/Building Development/Fact_Sheet/BushFireProneLandMap.pdf

1.4 Scope and limitations

This report: has been prepared by GHD and may only be used and relied on by for the purpose agreed as set out in Section 1.1 of this report.

GHD otherwise discisims responsibility to any person arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on information obtained from, and testing undertaken at or in connection with, specific sample points. Site conditions at other parts of the site may be different from the site conditions found at the specific sample points.

Site conditions (including the presence of hazardous substances and/or site contamination) may change after the date of this Report. GHD does not accept responsibility arising from, or in connection with, any change to the site conditions. GHD is also not responsible for updating this report if the site conditions change.