Appendix M

Bushfire Threat Assessment

BUSH FIRE ASSESSMENT REPORT

-Bettergrow Pty Ltd-
Organics Facility Expansion
Ravensworth

Prepared By:

PEAK LAND MANAGEMENT

NOVEMBER 2018

BPAD Bushfire Planning & Design
Accredited Practitioner
Level 3

PEAK LAND MANAGEMENT

Land management consulting services:

-Bush Fire- **-Ecological-** **-Environmental-**

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Cover Photo: View of subject site.

CONTENTS

FIGURES AND TABLES

Document History

Document Id.	Prep. Date	Version	Submitted to
Bush Fire Report	7.11.18	1	Shaun Smith, RPS Australia East
Bush Fire Report	12.11.18	2	Shaun Smith, RPS Australia East

AUTHOR DETAILS

Ted Smith is the director of PEAK LAND MANAGEMENT. He is a qualified Land Management Consultant with a Bachelor of Science Honours Degree in Physical Geography. He has over 25 years experience commercially consulting with PEAK LAND MANAGEMENT PTY LTD and working within state government.

Ted has completed a Graduate Diploma in Design for Bush Fire Prone Areas from the University of Western Sydney and is a member of the Fire Protection Association of Australia (FPA of Australia), being a BPAD Accredited Bush Fire Practitioner Level 3.

CERTIFICATION

Ted Smith of PEAK LAND MANAGEMENT has carried out a Bush Fire Assessment including a site inspection on the subject property. A detailed Bush Fire Assessment Report is attached which includes the submission requirements set out in *Appendix 2 & 4* of *Planning for Bush Fire Protection 2006* together with recommendations as to how the relevant specifications and requirements are to be achieved.

I hereby certify, in accordance with Section 4.14 of the *Environmental Planning and Assessment Act 1979 No 203*:

1. That I am a person recognised by the *NSW Rural Fire Service* as a qualified consultant in Bush Fire Risk Assessment; and

2. That subject to the recommendations contained in the attached Bush Fire Assessment Report the proposed development conforms to the ***relevant specifications and requirements*** being the document entitled *Planning for Bush Fire Protection* prepared by the NSW Rural Fire Service in co-operation with the Department of Planning and any other document as prescribed by Section 4.14 of the *Environmental Planning and Assessment Act 1979 No 203*.

7th November, 2018

Signature

Date

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1.0 INTRODUCTION

PEAK LAND MANAGEMENT PTY LTD has been engaged by RPS Australia East Pty Ltd (RPS) on behalf of Bettergrow Pty Ltd to prepare a Bush Fire Assessment Report (BFAR) for a proposed expansion of an existing composting and nutrient recycling facility over land located at Ravensworth No. 2 mine and is formally described as Lot 10 DP1204457 at 74 Lemington Road, Ravensworth, NSW (referred to hereafter as "subject site").

The site is located approximately 20 kilometres (km) north of the township of Singleton, New South Wales (NSW), (refer **Figure 1**) within the Singleton Council Local Government Area (LGA).

Figures 1-4 show the subject site location, topographic map, vegetation assessment, site plan and Appendix 1 shows photos of the subject site.

Under the *Environmental Planning and Assessment Act, 1979* (and its regulations), and the *Rural Fires Act 1997* (and its regulations), councils are required to assess and control new developments in Bush fire prone areas. This land has been assessed as **not** being part of a Bush Fire Prone Land Area as mapped by Council. It should be noted that Section 4.14 of the *Environmental Planning and Assessment Act 1979* requires Councils to be satisfied that developments in Bush fire Prone Areas comply with *Planning for Bush Fire Protection 2006* (PBP) guidelines, and relevant standards including the BCA which calls up AS 3959-2009 before granting development consent.

As the proposal (including access road) is not over land mapped as Bush Fire Prone Land (see Fig 5) no further requirements are applicable. This has been verified on site, with no hazard present.

This report aims to address these requirements so consideration may be shown by DoPE to allow development approval.

Figure 1: Project regional location (from RPS). North to top of all figures unless otherwise shown.

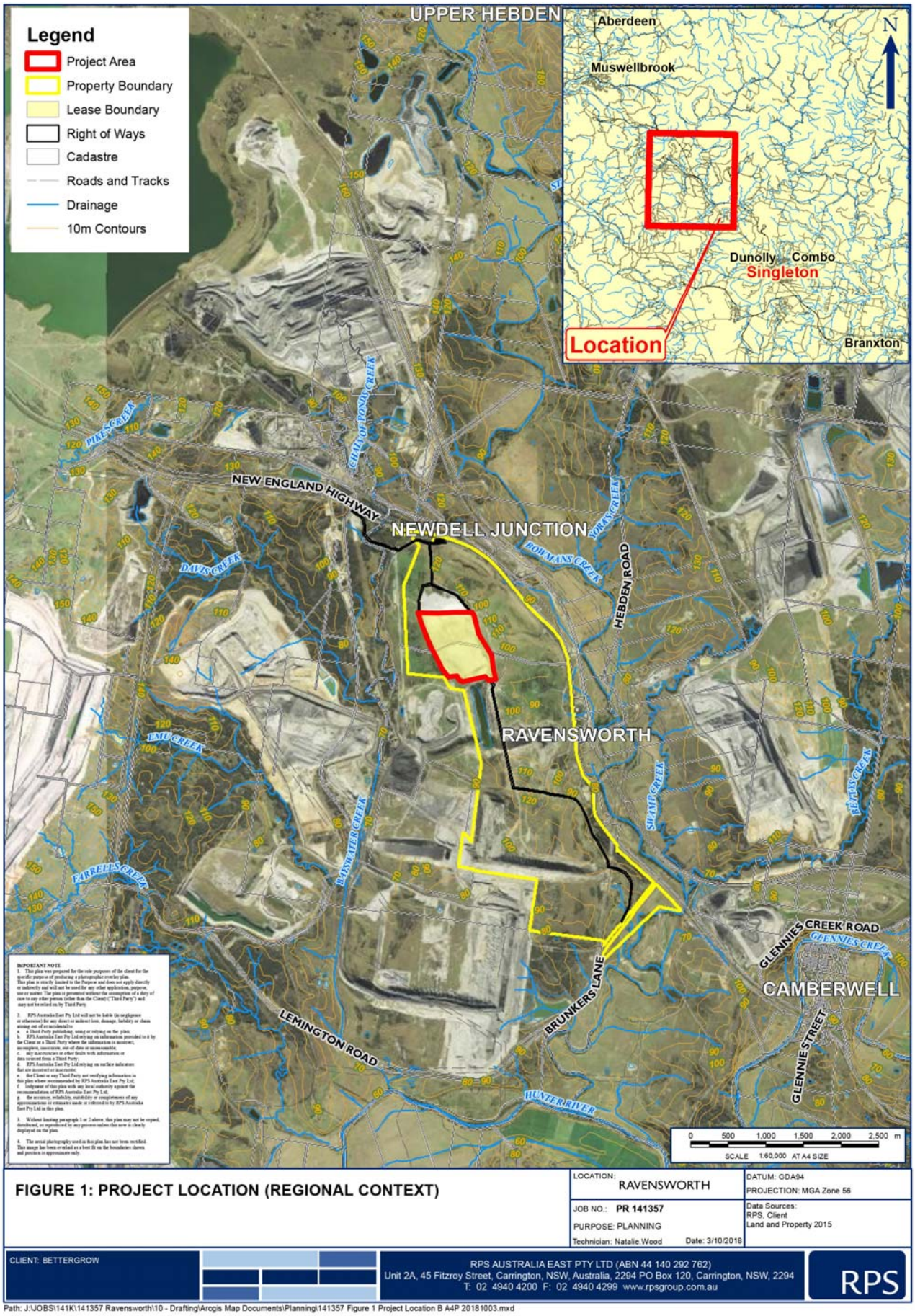

FIGURE 1: PROJECT LOCATION (REGIONAL CONTEXT)

LOCATION: RAVENSWORTH	DATUM: GDA94
JOB NO.: PR 141357	PROJECTION: MGA Zone 56
PURPOSE: PLANNING	Data Sources: RPS, Client Land and Property 2015
Technician: Natalie.Wood Date: 3/10/2018	

CLIENT: BETTERGROW

RPS AUSTRALIA EAST PTY LTD (ABN 44 140 292 762)
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T: 02 4940 4200 F: 02 4940 4299 www.rpsgroup.com.au

RPS

Path: J:\JOBS\141K\141357 Ravensworth\10 - Drafting\Arcgis Map Documents\Planning\141357 Figure 1 Project Location B A4P 20181003.mxd

Figure 2: Project local location (from RPS).

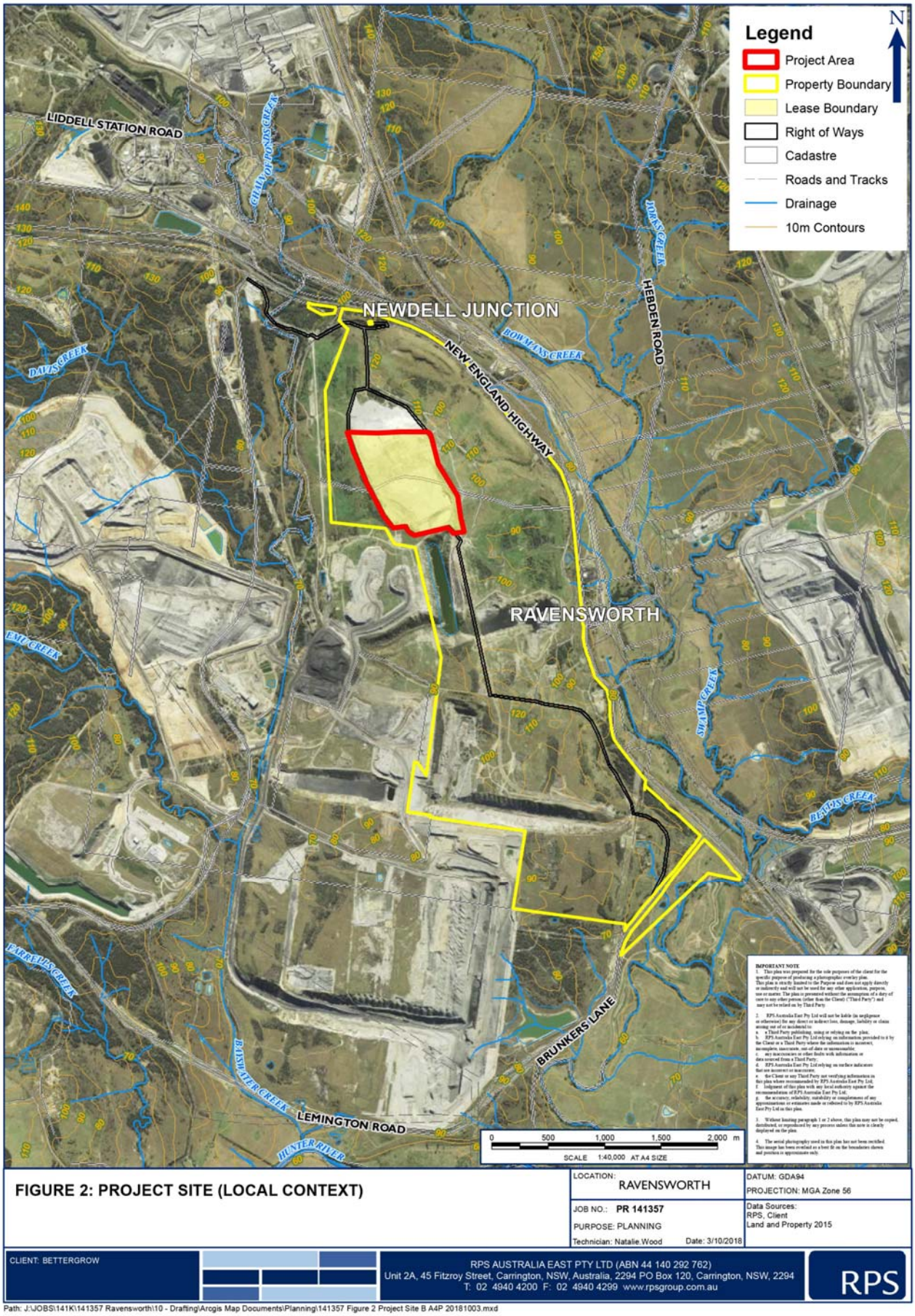


Figure 3: Proposed site plan layout (from RPS, dated 5.11.18).

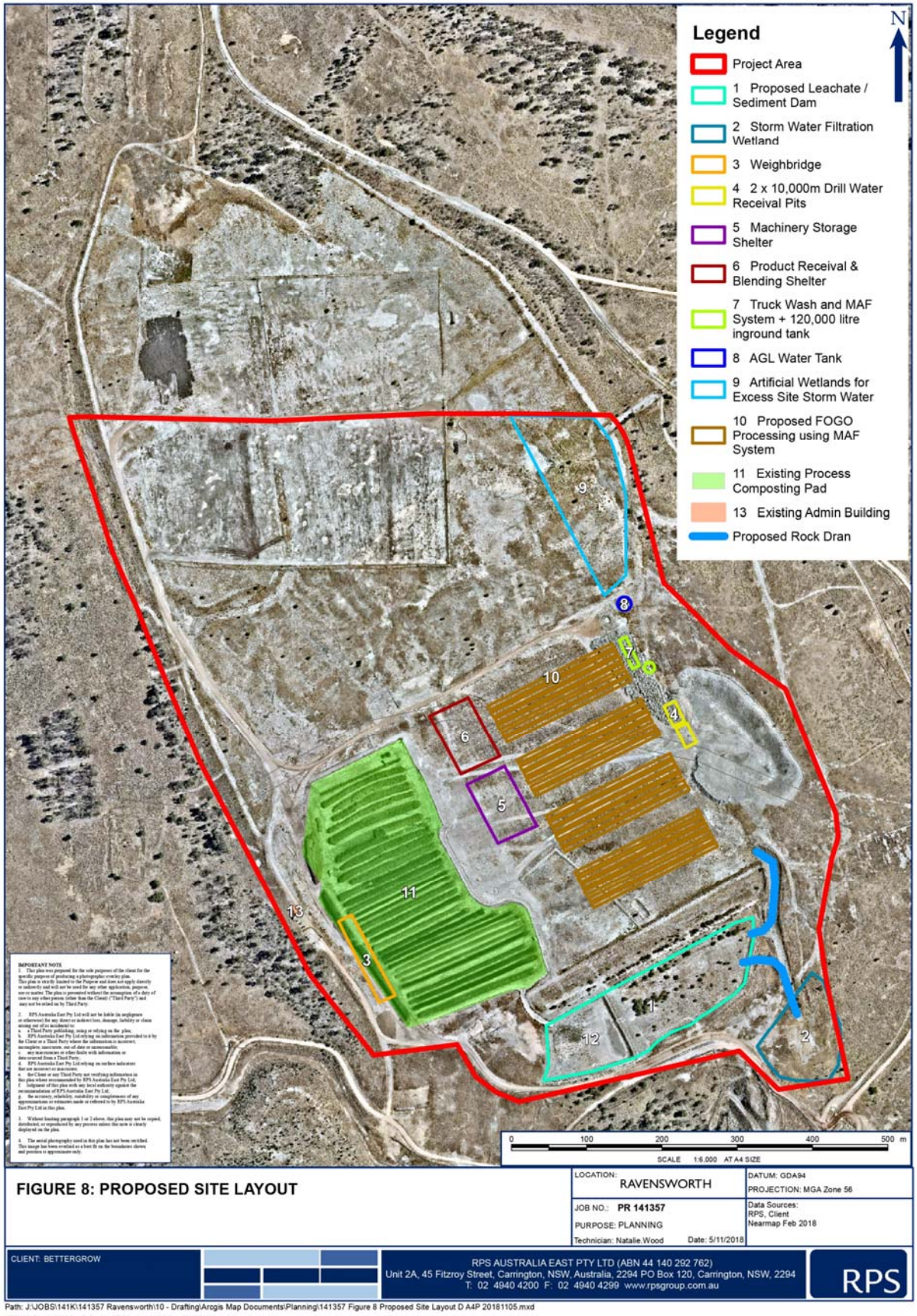


Figure 4: Topographic map of site (from NSW Lands Department)

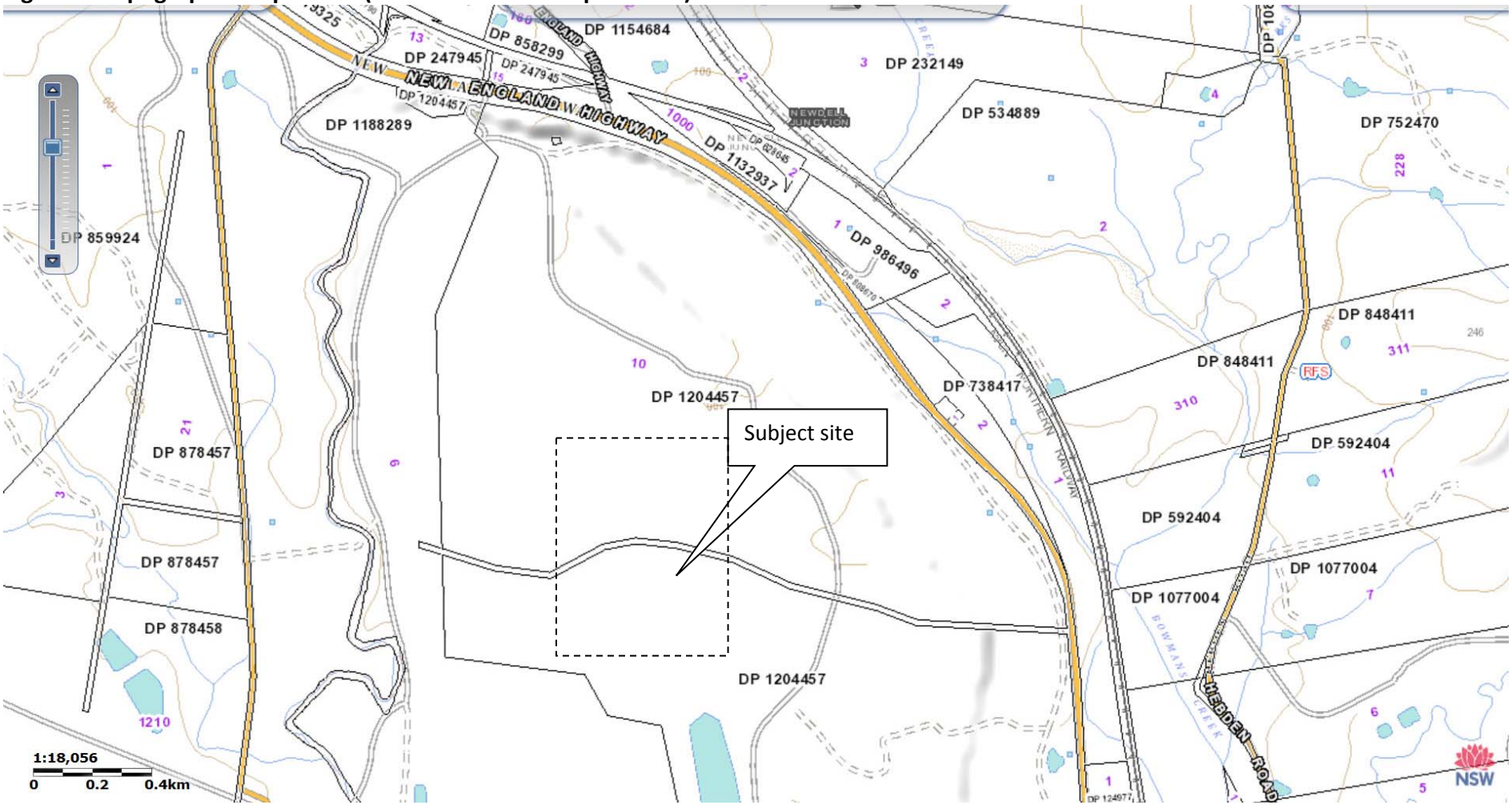
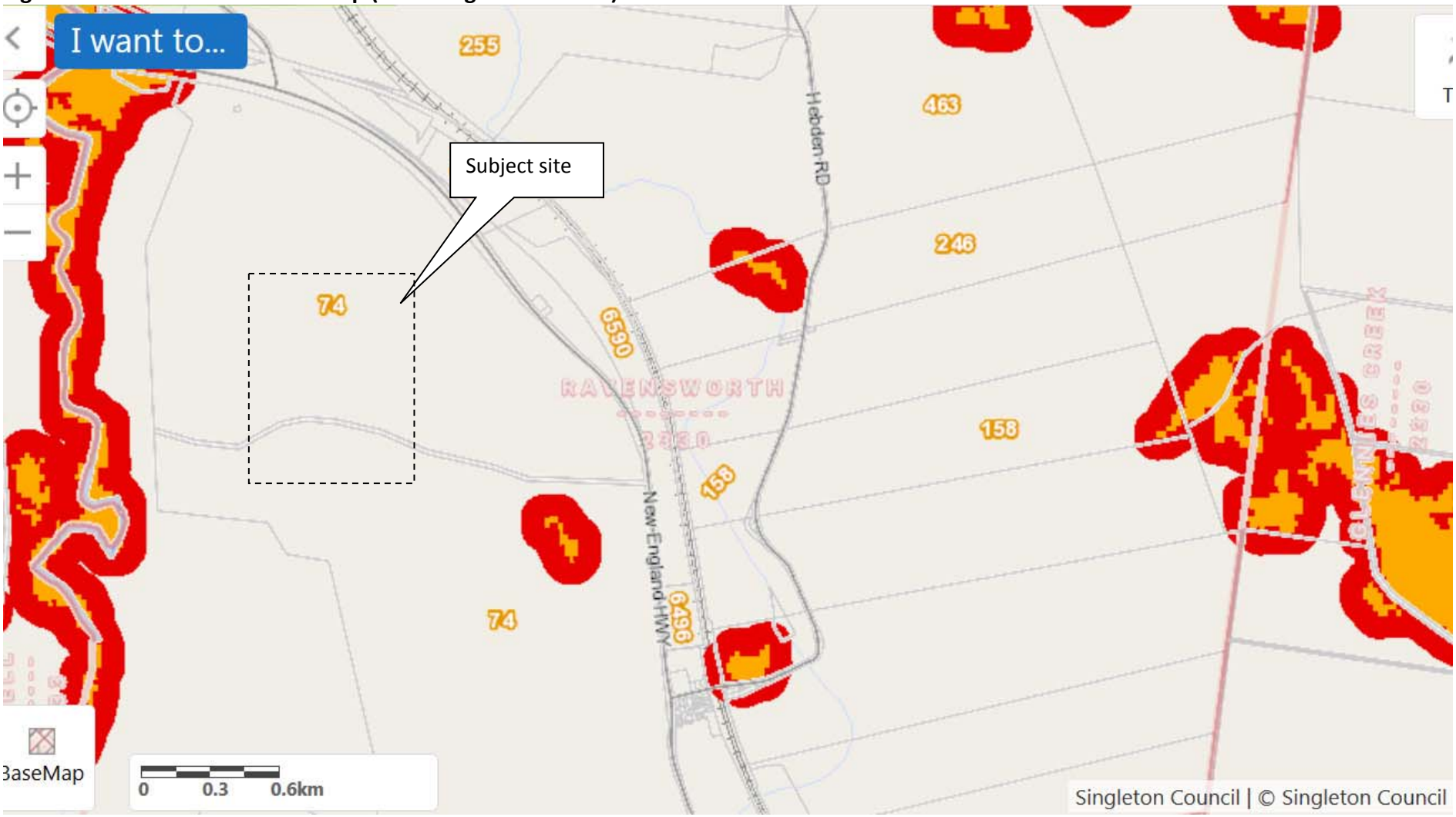


Figure 5: Bush Fire Prone Land Map (from Singleton Council)



3.0 SPECIFICATIONS, UTILITIES, ACCESS AND SURROUNDING LANDUSE

3.1 SURROUNDING LANDUSE

The site comprises lands located on part of a capped open cut mining void which has been filled with mine spoil and ash from the Bayswater Power Station. The development footprint, including the existing approved composting facility, is located on a graded hardstand area, surrounded by perimeter bunding. A sediment barrier is located on the eastern corner of the facility and a clean water catch drain is located along the western side of the facility. A detention basin and spillway are located towards the southern end of the facility. A diversion wall and channel direct stormwater runoff from the eastern corner of the facility into the spillway. A spillway channel connects the spillway to the lower basin.

Significant disturbance of the natural environment within and surrounding the development site has occurred as a result of the long history of mining and power generating activities in the area. The Project area is clear of any remnant or native vegetation due to past land activities.

3.2 ACCESS

Access to the facility is provided via an internal unsealed, 4-6m wide two way all weather traversable access road off Lemington Road which connects to the New England Highway. The site location is shown on **Figure 2**.

3.3 UTILITIES/WATER SUPPLIES

The current and proposed expanded development is not serviced by reticulated water, or mains electricity. A number of dams, with the largest being a mine void dam at least 20 megalitres in capacity, is located to the south of the site. The water from the large dam is pumped on site, and is available for fire fighting if necessary. A 300 000 litre holding tank is located centrally on the eastern side of the development.

4.0 VEGETATION

The predominant vegetation type within 140m is managed land assessed as per PBP 2006 (Figure 4, Appendix 1 - photos).

Land over and within 100m of the site is bare rock & soil, weeds and grasses, which are slashed and managed over the site, and assessed as managed land/no hazard. There is insufficient fuel in the slashed grassland to enable a grass fire to develop or spread.

5.0 SLOPE

Slope assessment has been carried out under flammable vegetation within 100 metres of the development as specified under the Guidelines Assessment Procedure. The angles have been measured in the field by an inclinometer, and measure the slope under the vegetation. See Table 1. In this case as no hazard is present so no slopes have been measured.

5.0 ENVIRONMENTAL FEATURES

The subject development site has been cleared, with exotic grasses and weeds occurring over the footprint. An Environmental Report has been completed by PEAK LAND MANAGEMENT 2018, which found no environmental features.

6.0 ABORIGINAL FEATURES

An AHIMS search has occurred with no sites recorded over the development site. The site is disturbed, slashed, leveled, filled, and cleared.

7.0 BUSH FIRE ASSESSMENT

The legislation as it relates to this site calls for asset protection zones (APZ) to be established around the proposed development, provision of adequate access, design staging and citing of the development and provision of appropriate water supply for bush fire fighting purposes.

5.1 Setbacks including asset protection zones

Table 1 shows the bush fire assessment for the subject site.

Table 1: Bush Fire Site Assessment –FDI 100

DIRECTION TO BUSH FIRE HAZARD	MOST SIGNIFICANT GRADIENT	PREDOMINANT VEGETATION TYPE WITHIN 140m as per PBP 2006	Distance to canopy edge of hazard (from nearest part of development)
All directions	N/A	Managed land to an Asset Protection Zone standard	N/A

8.0 BUSH FIRE RECOMMENDATIONS

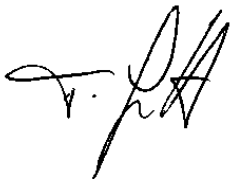
The development is not mapped as bush fire prone land, with no bush fire requirements applicable.

The following non compulsory recommendations are made for the proponent:

- **Access Road:** - A minimum 4m wide access road with 1m shoulders, passing bays every 200m to allow two way passing of vehicles, $<10^0$ slope, & being unsealed (or sealed) all weather trafficable is provided;
- **Perimeter road:**- A minimum 4m wide perimeter road, $<10^0$ slope, & being an unsealed all weather trafficable road is provided around the external perimeter of the compost mounds to prevent potential grass fires encroaching into the compost facility, or if compost facility is alight spreading into surrounding grassed areas off site.
- **Water-** water supplies provided to fight any fires (ie water from local dams on site is adequate, or a 20 000litre dedicated fire fighting non combustible water tank). A diesel or petrol powered fire fighting pump, with at least a 40m long hose with steel nozzle, mounted on a mobile fire tanker unit should be provided. It should be able to pump out water and cart water from the water supply tank/dam, and fight any spot fires caused by ember attack, self combustion, etc.
- **Emergency and Evacuation Plan –** includes details of Warden, Rural Fire Service contact numbers, emergency meeting point, fire fighting apparatus & location, first aid kits, procedures to take in the advent of a bush fire, and also informing local Rural Fire Service of development once approved so that it is within their register/are aware of this facility and access etc.

The bush fire risk is considered to be adequately managed through the recommendations made above, and in conjunction with any recommendations from the Rural Fire Service/ Council the proposed development should proceed.

Report prepared by:



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9.0 REFERENCES

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Websites

www.rfs.nsw.gov.au
Lands Department- SIX Maps
Nearmap
Singleton Shire Council

APPENDIX 1: PHOTOS OF SITE AND SURROUNDS

Subject site

Managed land over and around subject site (looking west)

Managed land to north of subject site

Managed land to east of subject site

Managed land to south of subject site

Access road from Lemington Road

Existing office on site

Void dam available for fire fighting water supply