



Application for Planning Approval

Land Use Planning and Approvals Act 1993

APPLICATION NO.

SA2023/017

LOCATION OF AFFECTED AREA

406 COVE HILL ROAD, HONEYWOOD

DESCRIPTION OF DEVELOPMENT PROPOSAL

SUBDIVISION (2 LOTS)

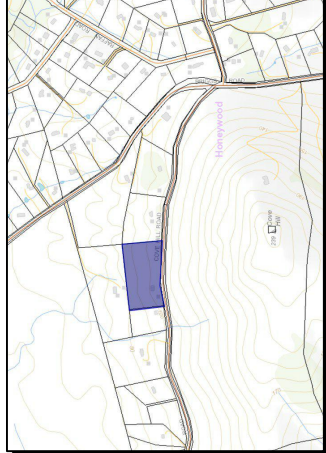
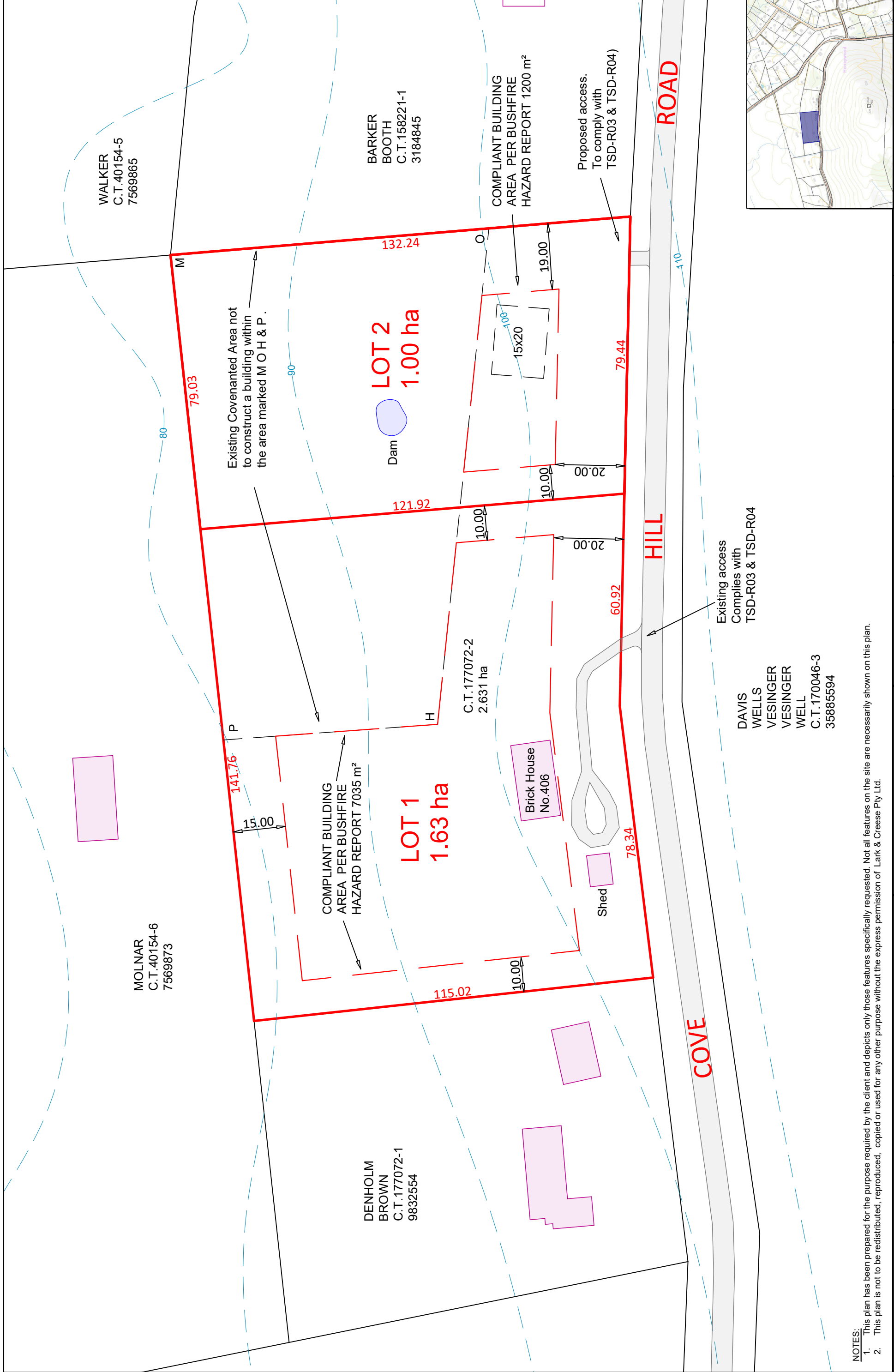
A COPY OF THE DEVELOPMENT APPLICATION MAY BE VIEWED AT www.brighton.tas.gov.au AND AT THE COUNCIL OFFICES, 1 TIVOLI ROAD, OLD BEACH, BETWEEN 8:15 A.M. AND 4:45 P.M., MONDAY TO FRIDAY OR VIA THE QR CODE BELOW. ANY PERSON MAY MAKE WRITTEN REPRESENTATIONS CONCERNING AN APPLICATION UNTIL 4:45 P.M. ON **03/10/2023**. ADDRESSED TO THE GENERAL MANAGER AT 1 TIVOLI ROAD, OLD BEACH, 7017 OR BY EMAIL AT development@brighton.tas.gov.au.

REPRESENTATIONS SHOULD INCLUDE A DAYTIME TELEPHONE NUMBER TO ALLOW COUNCIL OFFICERS TO DISCUSS, IF NECESSARY, ANY MATTERS RAISED.

JAMES DRYBURGH
General Manager



Brighton
going places



	DATE	29/05/2023
	DRAWN	GS
	CHECKED	NC

PROJECT	30339
DRAWING	50943-01
SCALE	1:1000@A3
TITLE	C.T. 177072-2
PID	9832555
CONTOUR	INTERVAL

406 COVE HILL ROAD HONEYWOOD
C A Perry C L Haddrick

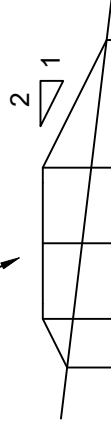
DEVELOPMENT APPLICATION
- SUBDIVISION -

62 Channel Highway, Kingston
+61 (03) 6229 6563
info@larkandcreese.com.au
www.larkandcreese.com.au

LARK & CREESE Pty Ltd
Land & Engineering Surveyors

NOTES:
1. This plan has been prepared for the purpose required by the client and depicts only those features specifically requested. Not all features on the site are necessarily shown on this plan.
2. This plan is not to be redistributed, reproduced, copied or used for any other purpose without the express permission of Lark & Creese Pty Ltd.

CARRIAGEWAY 4.0m WIDE
+ 0.5m SHOULDERS PER
C13.6.2, BUSHFIRE PRONE
AREAS CODE

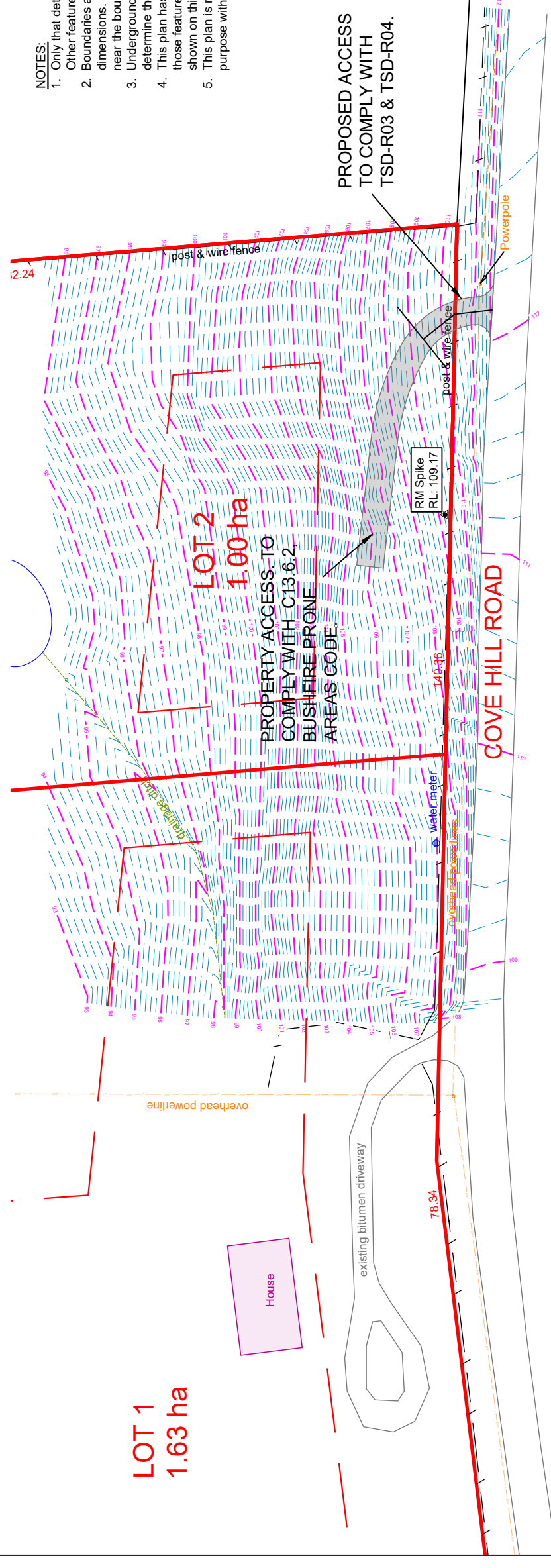


DESIGN	109.90	109.90	-4.10	110.55	109.70	-2.50	110.60	109.40	0.00	110.65	109.10	2.50	108.60	108.60	6.72
NATURAL SURFACE															
O/S															

CH: 11.36

	5.0%	7.5%	18.0%	18.0%	8.2%	0.00	106.00	106.00	48.11
CUT/FILL	0.00	1.20	1.20	0.00	0.00	107.70	107.70	27.70	
DESIGN	112.00	112.00	111.60	110.60	109.40	11.36			
NATURAL SURFACE	112.03	112.03	110.40	109.40	107.70				
CHAINAGE	0.00	0.50	5.77	11.36	27.70				

LONG SECTION 1:200 HORIZONTAL
1:100 VERTICAL



- NOTES:
- Only that detail apparent on site at the time of survey has been located by this plan. Other features and services may exist on, under or over the site.
 - Boundaries are compiled from title surveys and may vary from original survey dimensions. A Remark Survey is recommended prior to any works occurring on or near the boundaries.
 - Underground services exist in this area. It is the responsibility of the developer to determine the location of these services prior to the commencement of site works.
 - This plan has been prepared for the purpose required by the client and depicts only those features specifically requested. Not all features on the site are necessarily shown on this plan.
 - This plan is not to be redistributed, reproduced, copied or used for any other purpose without the express permission of Lark & Creese Pty Ltd.

LARK & CREESE Pty Ltd
Land & Engineering Surveyors

62 Channel Highway, Kingston
+61 (03) 6229 6563
info@larkandcreese.com.au
www.larkandcreese.com.au

SITE PLAN

406 COVE HILL ROAD
HONEYWOOD
C Perry & C Hadrick

PROJECT	30339	DATE	02/08/2023
DRAWING	50943	DRAWN	AN
SCALE	1:750@A3	CHECKED	CHECKED
TITLE	177072/2	PID	9832555
CONTOUR	0.2m		

BUSHFIRE HAZARD REPORT
2 LOT SUBDIVISION
406 COVE HILL ROAD, HONEYWOOD
FOR
C.A. PERRY & C.L. HADDRICK



PREPARED BY L BRIGHTMAN (BFP-164)

CERTIFIED BY N M CREESE (BFP-118)

6th June 2023

1

LARK & CREESE

Contents

1. SUMMARY:	3
2. LOCATION:	4
3. SITE DESCRIPTION:	5
4. PROPOSED DEVELOPMENT:	10
5. BUSHFIRE ATTACK LEVEL:	11
6. COMPLIANCE:	21
7. CONCLUSIONS & RECOMMENDATIONS:	30
8. REFERENCES:	32
9. GLOSSARY	33

ATTACHMENT 1 – Bushfire Hazard Management Plan

ATTACHMENT 2 – Planning Certificate

Disclaimer:

AS 3959:2018 cannot guarantee that a habitable building will survive a bushfire attack, however the implementation of the measures contained within AS 3959:2018, this report and accompanying plan will improve the likelihood of survival of the structure. This report and accompanying plan are based on the conditions prevailing at the time of assessment. No responsibility can be accepted to actions by the landowner, governmental or other agencies or other persons that compromise the effectiveness of this plan. The contents of this plan are based on the requirements of the legislation prevailing at the time of report.

1. SUMMARY:

This Bushfire Hazard Report has been prepared to support the development of a new 2 lot subdivision at 1406 Cove Hill Road, Honeywood. The site is subject to a Bushfire Prone Area Overlay under the relevant planning scheme and has been deemed to have the potential to be bushfire prone due to its proximity to the areas of bushfire prone vegetation surrounding the site.

This report identifies the protective features and controls that must be incorporated into the design and construction works to ensure compliance with the standards. Fire management solutions are as defined in *AS 3959:2018 Construction of Buildings in Bushfire-Prone Areas and C13.0 Bushfire-Prone Areas Code, Tasmanian Planning Scheme - Brighton (Code)*.

All lots have been designed to achieve a bushfire attack level of BAL-19 (or lower) of *AS 3959:2018* in accordance with *C13.0 the Code*. New habitable buildings on these lots are to be constructed to this level, or greater, with the establishment and maintenance of the specified Hazard Management Areas to ensure ongoing protection from the risk from bushfire attack. A reduced bushfire attack level may be permitted where the separation distance between the bushfire prone vegetation and the building exceeds that required for BAL-19, subject to a revised assessment at the time of application for building approval.

Compliance with the following provisions of the *Code* will be required:

- *C13.6.1 Provision of hazard management areas*
- *C13.6.2 Public and fire fighting access*
- *C13.6.3 Provision of water supply for fire fighting purposes*

The effectiveness of the measures and recommendations detailed in this report and *AS 3959:2018* is dependent on their implementation and maintenance for the life of the development or until the site characteristics that this assessment has been measured from alter from those identified. No Liability can be accepted for actions by lot owner, Council or Government agencies which compromise the effectiveness of this report.

This report has been prepared by Liam Brightman and certified by Nick Creese, principal of Lark & Creese Surveyors. Liam is accredited by the Tasmania Fire Service to prepare Bushfire Hazard Management Plans. Nick is a registered surveyor in Tasmania and is accredited by the Tasmanian Fire Service to prepare Bushfire Hazard Management Plans.

Site survey carried out on the 24th May 2023.

2. LOCATION:

Property address: 406 Cove Hill Road, Honeywood
Title owner: C.A. Perry & C.L. Haddrick
Title reference: C.T. 177072/2
PID N°: 9832555
Title area: ±2.63 Ha
Municipal area: Brighton
Zoning: Rural Living



Image 1: Site location (Source *The LIST*)

3. SITE DESCRIPTION:

The site is located within an existing rural area on Cove Hill Road, approximately 700 metres west of the intersection of Briggs Road, Honeywood Road, and Cove Hill Road, Honeywood. The site is located at an elevation range of approximately 80-105 metres with grades falling to the north in the order of 10-15°.

At the time of assessment, the property included an existing Class 1a building and a Class 10a building, a bitumen access, garden, and pasture that was being utilized for the grazing.

North of the site was an allotment that appeared to be utilized for farming purposes. This allotment included a dwelling, sheds, gravel access, garden, and pasture.

The allotment to the east included a dwelling and shed, gravel access and hardstand areas, garden, an area of native trees and shrubs, and pasture.

Adjacent to the southern boundary was Cove Hill Road which included a nature strip vegetated by grass, and bitumen carriageway. On the southern side of Cove Hill Road, a large rural property was vegetated by pasture and areas of native trees and shrubs.

The allotments to the west included dwellings and sheds, bitumen access and hardstand areas, garden, and grassed areas.

Reticulated water supply is available to the site with domestic water supply requirements reliant TasWater mains supply.

Planning controls are administered by the Brighton Council under the *Tasmanian Planning Scheme - Brighton*. The site is zoned Rural Living.



Image 2: Aerial image of site and surrounds (Source *The LIST*)



Image 3: Looking northwest towards Lot 1.



Image 4: Looking southwest from Lot 2 towards Lot 1.

Planning Controls:

Planning controls are administered by the Brighton Council under the *Tasmanian Planning Scheme - Brighton*. The site is subject to a *C13.0 Bushfire-Prone Areas Code*, *C15.0 Landslide Hazard Code* and is zoned Rural Living.

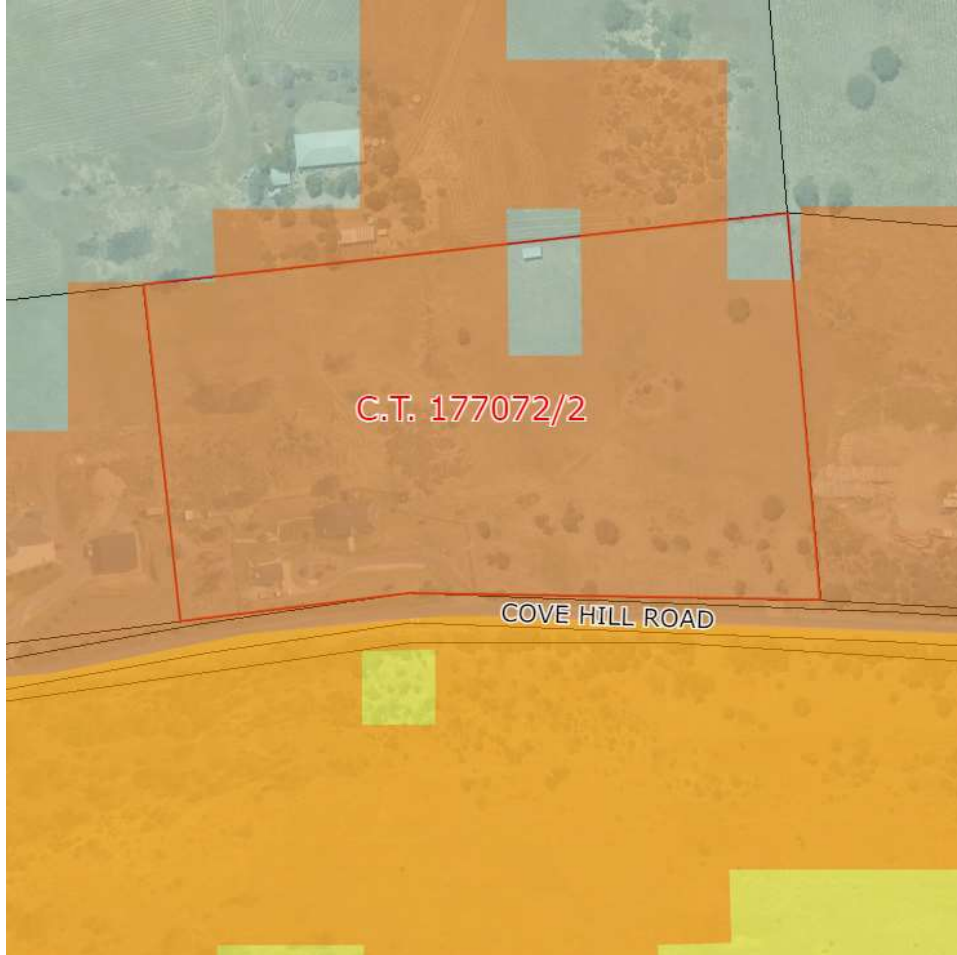


Image 5: Council zoning and overlays

Whole site:	Rural Living
Yellow:	Rural
Whole site:	Bushfire-Prone Area
Orange:	Landslide Hazard

Fire History:

From the Fire History overlay detailed within *The LIST* map imagery, bushfire events mapped within a 2 km range of the site are listed below.

Date	Name	Area affected	Cause
1967	1967 Fire	±200 000 ha	Unknown
2017	Sattler Street	±31 ha	Planned burn

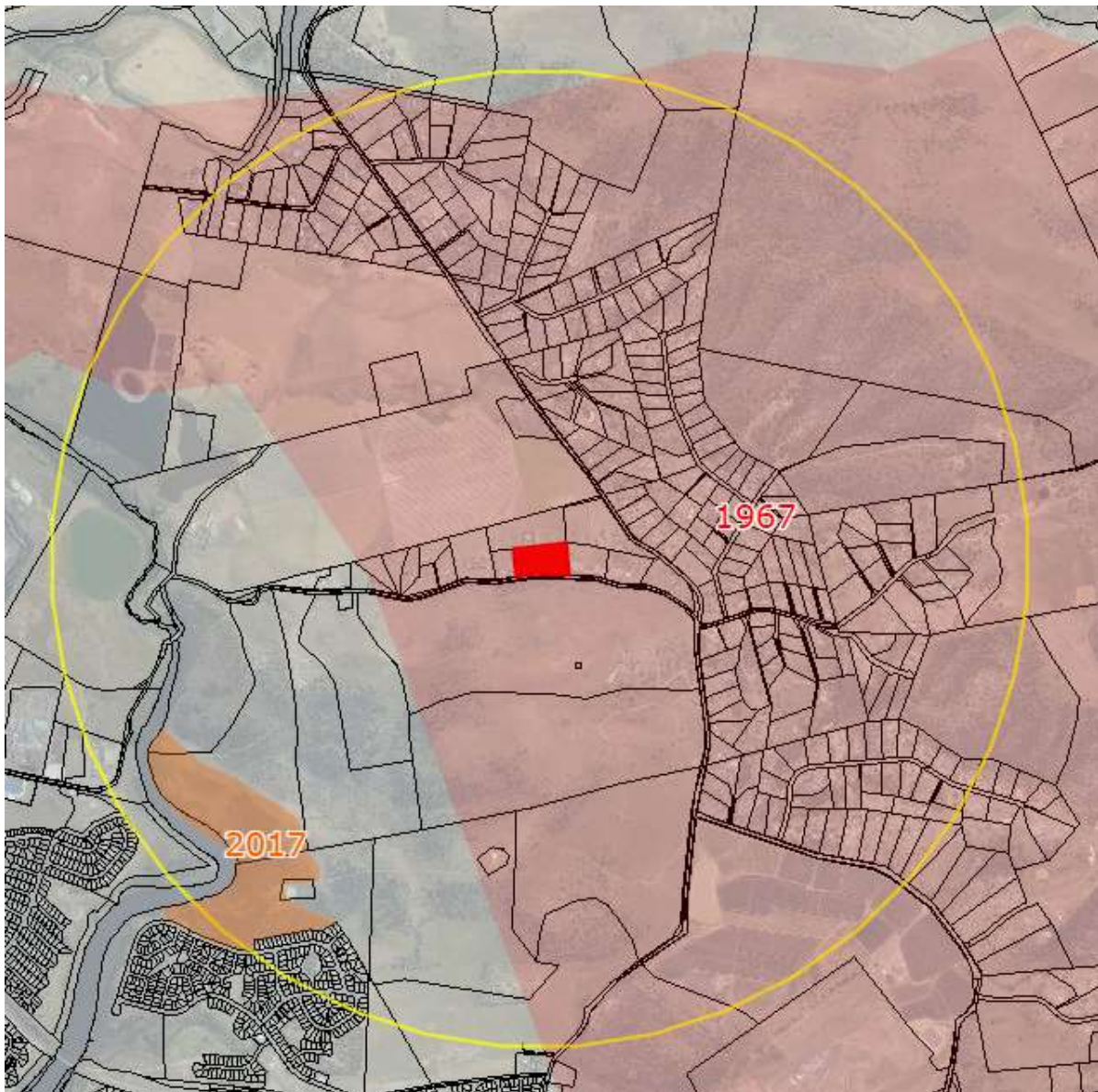


Image 6: Bushfire History (Source *The LIST*)

4. PROPOSED DEVELOPMENT:

A 1 ha allotment is proposed to be subdivided from the parent title (Lot 2) resulting in a balance lot (Lot 1) of 1.63 ha containing the existing dwelling. New driveway access is to be constructed to Lot 2.

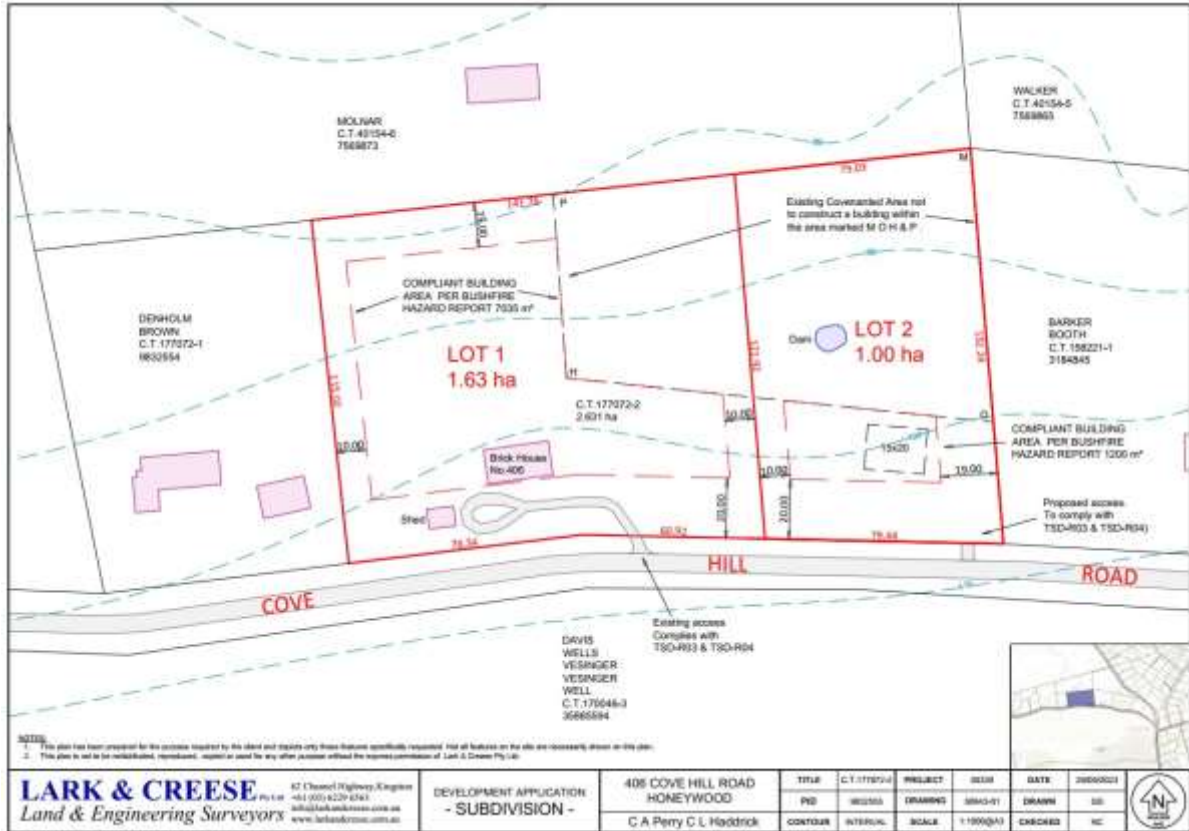


Image 7: Site plan.

5. BUSHFIRE ATTACK LEVEL:

Fire Danger Index (FDI): The Fire Index Rating for Tasmania is adopted as 50.

Vegetation Assessment:

Following assessment of the characteristics of the site, the vegetation types, separation distances from development site and slope under the vegetation have been identified as shown in Table 1 below:

Lot N°	Direction:	Description:	Distance:	Slope:
1 Existing dwelling	*North:	Site: <ul style="list-style-type: none"> • garden • pasture Neighbouring allotment: <ul style="list-style-type: none"> • Class 1a, Class 10a, garden • pasture 	0-4 4-80 80-100 80-100	10-15° down
	East:	Site: <ul style="list-style-type: none"> • garden • pasture Lot 2: <ul style="list-style-type: none"> • pasture 	0-30 30-68 68-100	Level
	South:	Site: <ul style="list-style-type: none"> • garden, bitumen access, Class 10a Cove Hill Road: <ul style="list-style-type: none"> • grassed nature strip • bitumen carriageway • native trees & shrubs Neighbouring allotment: <ul style="list-style-type: none"> • native trees & shrubs 	0-20 20-26 26-33 33-39 39-100	20° up Level 45° up 20° up
	*West:	Site: <ul style="list-style-type: none"> • garden Neighbouring allotment: <ul style="list-style-type: none"> • garden • pasture 	0-48 48-100 54-100	Level 9° down
2	North:	Site: <ul style="list-style-type: none"> • grass Neighbouring allotment: <ul style="list-style-type: none"> • grass • native trees & shrubs 	0-77 77-90 90-100	10-15° down
	*East:	Site: <ul style="list-style-type: none"> • grass Neighbouring allotment: <ul style="list-style-type: none"> • native shrubs 	0-10 10-35	Level

		<ul style="list-style-type: none"> • gravel hardstand areas • pasture 	35-100 13-100	9° down
	South:	Site: <ul style="list-style-type: none"> • grass Cove Hill Road: <ul style="list-style-type: none"> • grass nature strip • bitumen carriageway • native trees & shrubs Neighbouring allotment: <ul style="list-style-type: none"> • native trees & shrubs 	0-20 20-26 26-32 32-37 37-100	10-15° up Level 45° up 20° up
	*West:	Site: <ul style="list-style-type: none"> • pasture Lot 1: <ul style="list-style-type: none"> • pasture • garden, Class 1a, bitumen carriageway 	0-10 10-100 50-100	Level

Table 1: Site assessment.

NOTE: * The overlapping distance indicate a slight variation between the site and the assessed vegetation.

NOTE: The vegetation identified in Table 1 has been assessed in consideration of *Table 2.3 and figures 2.4(A)-(H) AS 3959:2018* as follows.

LOT 1

At the time of assessment, Lot 1 included an existing dwelling and outbuilding, bitumen access, garden, and an area of pasture that was being utilized for the grazing of domesticated animals. The developed portion has been classified as **Low Threat Vegetation** (LTV) in accordance with *Part 2.2.3.2 (e) & (f), AS 3959:2018*. The grass within the pasture area was less than 100 mm in height due to grazing by domesticated animals. It has been presumed that the grass has the potential to exceed 100 mm in height in the future and has been assessed in accordance *Figure 2.4(H) as Sown Pasture G-26* resulting in a vegetation classification of **G: Grassland**.

LOT 2

At the time of assessment, Lot 2 was vacant and vegetated by grass that were less than 100 mm in height due to grazing by domesticated animals. The grassed areas have the potential to exceed 100 mm in height in the future and has been assessed in accordance *Figure 2.4(H) as Sown Pasture G-26* resulting in a vegetation classification of **G: Grassland**.

Surrounding allotments

The allotment to the north appeared to be utilized for farming purposes and included a Class 1a and Class 10a buildings, gravel access, garden, and pasture with areas of native shrubs. The developed portion of the allotment has been classified as **Low Threat Vegetation** in accordance with *Part 2.2.3.2 (e) & (f), AS 3959:2018*. The grass within the pasture appeared to be short due to grazing by domesticated animals. The pasture areas has the potential to exceed 100 mm in height in the future and has been assessed in accordance *Figure 2.4(H)* as *Sown Pasture G-26* resulting in a vegetation classification of **G: Grassland**. The native shrubs were approximately 2 metres in height and has been assessed in accordance with *Figure 2.4(D)* as *Closed Heath C-10* resulting in a vegetation classification of **C Shrubland**.

The allotment to the east included a Class 1a and Class 10a buildings, gravel access and hardstand areas, garden, an area of exotic weeds and native shrubs, and an area of grass. The developed portion of the allotment has been classified as **Low Threat Vegetation** in accordance with *Part 2.2.3.2 (e) & (f), AS 3959:2018*. the area of exotic weeds and native shrubs was vegetated predominantly by Boneseed with scattered native shrubs. At the time of assessment, the Boneseed was approximately 300 mm in height, however, Boneseed has the potential to reach a height of 3 metres, as such this area of vegetation has been assessed in accordance with *Figure 2.4(E)* as *Open Scrub D-14* resulting in a vegetation classification of **D: Scrub**. The grass was greater than 100 mm in height and has been assessed in accordance with *Figure 2.4(H)* as *Close Tussock Grassland G-20* resulting in a vegetation classification of **G: Grassland**.

Adjacent to the southern boundary was Cove Hill Road which included a bitumen carriageway and nature strips. The grass on the nature strip on northern side of Cove Hill Road appeared to be well maintained in a minimal fuel condition and has been classified as **Low Threat Vegetation** in accordance with *Part 2.2.3.2 (e) & (f), AS 3959:2018*. The nature strip on the southern side of Cove Hill Road, and allotment beyond was vegetated by native trees, shrubs and grasses. In proximity to the site, the trees and shrubs cover an area of approximately 2 hectares and appear to be regenerating. Historical aerial imagery indicates this area was originally pasture with intensification of trees and shrubs over the past 20 years. Although foliage cover may be less than 30% at the time of assessment, with continued growth, foliage will exceed >30% and has been assessed in accordance with *Figure 2.4(B)* as *Open Forest A-03* resulting in a vegetation classification of **A: Forest**.

West of the subject property was an allotment that included a Class 1a and Class 10a building, bitumen carriageway, garden, and pasture. The developed portion of the allotment has been classified as **Low Threat Vegetation** in accordance with *Part 2.2.3.2 (e) & (f), AS 3959:2018*. The grass within the area of pasture was short due to the grazing of domesticated animals. The grassed areas has the potential to exceed 100 mm in height and has been assessed in accordance with *Figure 2.4(H)* as *Sown Pasture G-26* resulting in a vegetation classification of **G:**

Grassland.

Vegetation Classification:

In consideration of vegetation classifications under *Table 2.3* and *Figure 2.4*, AS 3959:2018 and as detailed above, the predominant vegetation, separation distances from development site and slope under the classified vegetation is assessed as shown in Table 2 below:

Lot N°	Direction:	Vegetation Type:	Distance (m):	Effective slope:	Exclusions:
1 Existing dwelling	North:	LTV G: Grassland LTV	0-4 4-100 80-100	10-15° down	No 2.2.3.2 (e) & (f)
	East:	LTV G: Grassland	0-30 30-100	Level	2.2.3.2 (e) & (f) No
	South:	LTV A: Forest	0-20 20-22 33-39 39-100	20° up Level 45° up 20° up	2.2.3.2 (e) & (f) No
	West:	LTV G: Grassland	0-100 54-100	Level 9° down	2.2.3.2 (e) & (f) No
2	North:	G: Grassland D: Scrub	0-90 90-100	10-15° down	No No
	East:	G: Grassland D: Scrub LTV G: Grassland	0-10 10-35 35-100 13-100	Level	No No 2.2.3.2 (e) & (f) No
	South:	G: Grassland LTV A: Forest	0-20 20-32 32-37 37-100	10-15° up Level 45° up 20° up	No 2.2.3.2 (e) & (f) No No
	West:	G: Grassland LTV	0-100 50-100	Level	No 2.2.3.2 (e) & (f)

Table 2: Assessed vegetation.



D:SCRUB

Image 8: Aerial image of assessed vegetation (Source *The LIST*).



Image 9: Predominant vegetation to the north of Lot 1 – G: Grassland



Image 10: Predominant vegetation to the east of Lot 1 – G: Grassland



Image 11: Predominant vegetation to the south of Lot 1 – A: Forest



Image 12: Predominant vegetation to the west of Lot 1 – G: Grassland



Image 13: Predominant vegetation to the north of Lot 2 – G: Grassland



Image 14: Predominant vegetation to the east of Lot 2 D:Scrub (to right)
G: Grassland (to left)



Image 15: Predominant vegetation to the south of Lot 2 – A: Forest



Image 16: Predominant vegetation to the west of Lot 2 – G: Grassland

Bushfire Attack Level Assessment:

Based on the predominant vegetation detailed above, and the separation distances provided between the predominant vegetation and the development site, the BAL for each direction from the proposed dwelling has been determined from *Table 2.6, AS 3959:2018* as follows:

LOT N°	BAL	Direction	Dist to veg	Slope	Vegetation Classification	HMA per Table 2.6	Boundary setback
1 Existing dwelling	19	North:	4 m	10-15° ds	G: Grassland	15-<22	15m
		East:	30 m	Level	G: Grassland	10-<14	10m
		South:	39 m	*20° us	A: Forest	23-<32	20m +
		West:	0 m	Level	**LTV	N/A	10m +
2	19	North:	0 m	10-15° ds	G: Grassland D:Scrub	15-<22 28-<39	77-87m ++
		East:	10 m	Level	D: Scrub	19-<27	19m
		South:	32 m	*20° us	A: Forest	23-<32	20m +
		West:	0 m	Level	G: Grassland	10-<14	10m

Table 3: Assessed Bushfire Attack Level for each lot

NOTE: *The slope of the nature strip on the southern side of Cove Hill Road has been assessed as being 45°, however, as this slope occurs over a relatively narrow width the effective slope has been assessed as 20° up consistent with the land beyond.

**The measured distance from the existing dwelling to the vegetation classified as G: Grassland in the west is greater than the maximum distance for BAL-12.5 *Table 2.6, AS 3959:2018*, as such the predominant vegetation has been classified as Low Threat Vegetation.

^The area of vegetation classified as D: Scrub has been assessed as not posing the predominate bushfire threat to the site due to the distance from the building area being greater than the distance required for BAL-12.5, *AS 3959:2018*.

+ Where HMA requirements are less than the standard boundary setback per clause 11.4.2 A2 & A3, *Tasmanian Planning Scheme – Brighton*.

++ A covenant over the title prohibits building within the area marked M O H P. The northern most boundary of the building area on Lot 2 stops at the boundary of the covenant area.

6. COMPLIANCE:

The site is subject to a Bushfire Prone Areas Overlay and compliance is assessed against the provisions of C13.0 Bushfire-Prone Areas Code in the following manner:

C13.6.1 Provision of hazard management areas

That subdivision provides for hazard management areas that;

- (a) facilitate an integrated approach between subdivision and subsequent building on a lot;*
- (b) provide for sufficient separation of building areas from bushfire-prone vegetation to reduce the radiant heat levels, direct flame attack and ember attack at the building area; and*
- (c) provide protection for lots at any stage of a staged subdivision.*

A1	Acceptable Solutions
<i>(a)</i>	<i>TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant the provision of hazard management areas as part of a subdivision; or</i>
<i>(b)</i>	<i>The proposed plan of subdivision;</i> <ul style="list-style-type: none"> <i>(i) shows all lots that are within of partly within a bushfire-prone area, including those developed at each stage of a staged subdivision;</i> <i>(ii) shows the building area for each lot;</i> <i>(iii) shows hazard management areas between bushfire-prone vegetation and each building area that have dimensions equal to, or greater than, the separation distances required for BAL-19 in Table 2.6 of Australian Standard AS 3959:2018 Construction of buildings in bushfire-prone areas; and</i> <i>(iv) is accompanied by a bushfire hazard management plan that addresses all the individual lots and that is certified by the TFS or accredited person, showing hazard management areas equal to, or greater than, the separation distances required for BAL-19 in Table 2.6 of Australian Standard AS 3959:2018 Construction of buildings in bushfire-prone areas; and</i>
<i>(c)</i>	<i>If hazard management areas are to be located on land external to the proposed subdivision the application is accompanied by the written consent of the owner of the land to enter into an agreement under section 71 of the Act that will be registered on the title of the neighbouring property providing for the affected land to be managed in accordance with the bushfire hazard management plan.</i>

The proposed subdivision has been assessed as being compliant with the Acceptable Solutions (b) as follows.

- (i) The plan of subdivision shows all lots that are within or partly within a bushfire-prone area.
- (ii) The plan of subdivision shows compliant building areas for all proposed allotments.
- (iii) Each lot can comply with the hazard management requirements of at least those required for BAL-19.
- (iv) The attached hazard management plan shows hazard management areas for each lot that are equal to or greater than the distances required for BAL-19.

Lots assessed as **BAL-19** are:

LOTS: 1 and 2

All lots are identified as containing building areas capable of compliance with the separation distances prescribed under *Table 2.6, AS 3959:2018*.

Hazard Management Area setbacks				
Direction	North	East	South	West
Lot 1	15 m	10 m	20 m	10 m
Lot 2	77-87 m	19 m	20 m	10 m
HMA establishment recommendations	<ul style="list-style-type: none"> • Establishing non-flammable areas around the dwelling such as paths, patios, driveway, lawns etc. • Locating dams, orchards, vegetable garden, effluent disposal areas etc on the bushfire prone side of the building. • Providing heat shields and ember trap on the bushfire prone side of the dwelling such as non-flammable fencing, hedges, separated garden shrubs and small trees, • Store flammable materials such as wood piles, fuels and rubbish heaps are stored away from the dwelling. • Replace highly flammable vegetation with low flammability species. See Tasmanian Fire Service web site (www.fire.tas.gov.au) publications - Fire resisting garden plants. • Provided separation between significant trees such that groups are no greater than 20 metres in width, and more than 20 metres of the other groups of significant trees. Note that the retention of some trees can screen a dwelling from windborne embers. 			

	<ul style="list-style-type: none"> • Trim lower branches of retained trees to a minimum of 2 metres above ground level. • Trees are not to overhang the dwelling so that vegetation falls onto the roof. • Strips of vegetation less than 20 metres in width and not within 20 metres of the site or other areas of bushfire-prone vegetation may be beneficial as an ember trap, wind breaks etc. • Removal of ground fuels such as leaves, bark, fallen branches etc.
Ongoing Management practices	<ul style="list-style-type: none"> • Slash or mow grasses to less than 100 mm. • Remove dead and fallen vegetation including branches, bark and leaves regularly. • Trim any regrowth branches of retained trees within HMA that overhang building or are less than 2m above ground level.

C13.6.2 Public and fire fighting access

The access roads to, and the layout of roads, tracks, and trails, in a subdivision:

- (a) allow safe access and egress for residents, firefighting and emergency services personnel;
- (b) provide access to the bushfire-prone vegetation that enables both property to be defended when under bushfire attack, and for hazard management works to be undertaken;
- (c) are designed and constructed to allow for fire appliances to be manoeuvred;
- (d) provide access to water supplies for fire appliances; and
- (e) are designed to allow connectivity, and where needed, offering multiple evacuation points.

A1	Acceptable solutions
(a)	TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant specific measures for public access in the subdivision for the purposes of fire fighting; or
(b)	A proposed plan of subdivision showing the layout of roads, fire trails and the location of property access to building areas, is included in a bushfire hazard management plan that; <ul style="list-style-type: none"> (i) demonstrates proposed roads will comply with Table C13.1, proposed private accesses will comply with Table C13.2 and proposed fire trails will comply with Table C13.3; and (ii) is certified by the TFS of an accredited person.

The proposed subdivision has been assessed as being compliant with the Acceptable Solutions (b) as follows.

- (i) The attached plan of subdivision shows the layout of roads, fire trails and the location of the property accesses to the building areas in compliance with *Table C13.1, Table C13.2 and Table C13.3.*
- (ii) This bushfire hazard report and attached bushfire hazard management area plan has been certified by N.M. Creese, an accredited bushfire practitioner BFP-118, scope 1 ,2 ,3a, 3b & 3c.

No new roads are proposed by this proposed subdivision as such *Table C13.1 Standards for Roads* is not applicable.

The existing access to Lot 1 must comply with *Table 13.2 Standards for Property Access.* Site inspection confirms the existing site access and turning area is consistent with the requirements of *Table 13.2.*

An access must be provided to the boundary of Lot 2 and is to be constructed in accordance with *Table 13.2 Standards for Property Access* prior to the Council sealing the final Plan of Survey. Access to the building site and on site turning is not required at the time of subdivision however is required at the time of construction of a building required to comply with AS 3959.

No fire trails are proposed by this development as such *Table C13.3 Standards for Fire Trails* is not applicable.

Table C13.2 Standards for Property Access		
Elements		Requirement
A	<i>Property access length is less than 30m; or access is not required for a fire appliance to access a firefighting water point</i>	<i>There are no specified design and construction requirements.</i>
B	<i>Property access length is 30m or greater; or access is required for a fire appliance to a fire fighting water point.</i>	<i>The following design and construction requirements apply to property access;</i> <i>(a) all-weather construction;</i> <i>(b) load capacity of at least 20t, including for bridges and culverts;</i> <i>(c) minimum carriageway width of 4m;</i> <i>(d) minimum vertical clearance of 4m;</i> <i>(e) minimum horizontal clearance of 0.5m from the edge of the carriageway;</i> <i>(f) cross falls of less than 3 degrees (1:20 or 5%);</i> <i>(g) dips less than 7 degrees (1:8 or 12.5%) entry and exit angles;</i> <i>(h) curves with a minimum inner radius of 10m;</i> <i>(i) maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18%) for unsealed roads; and</i> <i>(j) terminate with a turning area for fire appliances provided by one of the following;</i> <i>(i) a tuning circle with a minimum outer radius of 10m; or</i> <i>(ii) a property access encircling the building; or</i> <i>(iii) a hammerhead 'T' or 'Y' turning head 4m wide and 8m long.</i>
C	<i>Property access length is 200m or greater.</i>	<i>The following design and construction requirements apply to property access:</i> <i>(a) the requirements of B above; and</i>

		<i>(b) passing bays of 2m additional carriageway width and 20m length provided every 200m.</i>
<i>D</i>	<i>Property access length is greater than 30m, and access is provided to 3 or more properties.</i>	<i>The following design and constructions requirements apply to property access: (a) complies with requirement b above; and (b) passing bays of 2m additional carriageway width and 20m length must be provided every 100m.</i>

C13.6.3 Provision of water supply for fire fighting purposes

That an adequate, accessible and reliable water supply for the purposes of fire fighting can be demonstrated at the subdivision stage and allow for the protection of life and property associated with the subsequent use and development of bushfire-prone areas.

A2	Acceptable solutions
<i>In areas that are not serviced by reticulated water by the water corporation</i>	
(a)	<i>The TFS or an accredited person certifies that there is insufficient increase in risk from bushfire to warrant provision of a water supply for fire fighting purpose;</i>
(b)	<i>The TFS or an accredited person certifies that a proposed plan of subdivision demonstrates that a static water supply, dedicated to fire fighting, will be provided and located compliant with Table C13.5; or</i>
(c)	<i>A bushfire hazard management plan certified by the TFS or an accredited person demonstrates that the provision of water supply for fire fighting purposes is sufficient to manage the risk to property and lives in the event of a bushfire.</i>

The site is within an area serviced by a reticulated water supply, however, there was no evidence of a fire hydrant within 120 metres of the site and as such, the requirements of A2 have been applied.

Where a reticulated supply of water is not available to the site, in accordance with Acceptable Solution A2(b), all lots are assessed as being within a bushfire prone area and must be provided with a firefighting supply of water from a static supply in compliance with the provisions of *Table C13.5, C13.6.3 the Code* as follows:

A static water supply was located within Lot 1, however, it has been deemed not be appropriate for firefighting purposes. Lot 1 is to be provided with a static water supply for firefighting purposes in accordance with the requirements of *Table C13.5 Static water supply for fire fighting* prior to the Council sealing the final Plan of Survey.

Lot 2 is not required to have a static water supply for firefighting purposes at the time of subdivision. A static water supply for firefighting purposes must be installed at the time of construction of a building required to comply with the requirements of AS 3959:2018.

Table C13.5 Static water supply for fire fighting	
Element	Requirement
A	<p><i>Distance between buildings area to be protected and water supply</i></p> <p>The following requirements apply:</p> <p>(a) the building area to be protected must be located within 90m of the fire fighting water point of a static water supply; and</p> <p>(b) the distance must be measured as a hose lay, between the fire fighting water point and the furthest part of the building area.</p>
B	<p><i>Static Water Supplies</i></p> <p>A static water supply:</p> <p>(a) may have a remotely located offtake connected to the static water supply;</p> <p>(b) may be a supply for combined use (fire fighting and other uses) but the specified minimum quantity for fire fighting water must be available at all times;</p> <p>(c) must be a minimum of 10,000L per building area to be protected. This volume of water must not be used for any other purpose including fire fighting sprinklers or spray systems;</p> <p>(d) must be metal, concrete or lagged by non-combustible materials is above ground; and</p> <p>(e) if a tank can be located so it is shielded in all directions in compliance with section 3.5 of Australian Standard AS 3959:2018 Construction of buildings in bushfire-prone areas, the tank may be constructed of any material provided that the lowest 400mm of the tank exterior is protected by:</p> <p>(i) metal;</p> <p>(ii) non-combustible material; or</p> <p>(iii) fibre-cement a minimum of 6mm thickness.</p>
C	<p><i>Fittings, pipework and accessories (including stands and tank supports)</i></p> <p>Fittings and pipework associated with a fire fighting water point for a static water supply must:</p> <p>(a) have a minimum nominal internal diameter of 50mm;</p> <p>(b) be fitted with a valve with a minimum nominal internal diameter of 50mm;</p> <p>(c) be metal or lagged by non-combustible materials if above ground;</p> <p>(d) if buried, have a minimum depth of 300mm;</p> <p>(e) provide a DIN or NEN standard forged Storz 65mm coupling fitted with a suction washer for connection to fire fighting equipment;</p> <p>(f) ensure the coupling is accessible and available for connection at all times;</p> <p>(g) ensure the coupling is fitted with a blank cap and securing chain (minimum 220mm length);</p>

		<p>(h) ensure underground tanks have either an opening at the top of not less than 250mm diameter or a coupling compliant with this Table; and</p> <p>(i) if a remote offtake is installed, ensure the offtake is in a position that is:</p> <ul style="list-style-type: none"> (i) visible; (ii) accessible to allow connection by fire fighting equipment; (iii) at a working height of 450-600mm above ground level; and (iv) protected from possible damage, including damage by vehicles.
D	Signage for static water connections.	<p>The fire fighting water point for a static water supply must be identified by a sign permanently fixed to the exterior of the assembly in a visible location. The sign must:</p> <ul style="list-style-type: none"> (a) comply with water tank signage requirements within Australian Standard AS 2304-2019 Water storage tanks for fire protection systems; or (b) comply with the Tasmanian Fire Service Water Supply Guideline published by the Tasmanian Fire Service.
E	Hardstand	<p>A hardstand area for fire appliances must be:</p> <ul style="list-style-type: none"> (a) no more than 3m from the fire fighting water point, measured as a hose lay (including the minimum water level in dams, swimming pools and the like); (b) no closer than 6m from the building area to be protected; (c) a minimum width of 3m constructed to the same standard as the carriageway; and (d) connected to the property access by a carriageway equivalent to the standard of the property access.

7. CONCLUSIONS & RECOMMENDATIONS:

This Bushfire Hazard Report and Bushfire Hazard Management Plan have been prepared to support the application for planning approval for subdivision at 406 Cove Hill Road, Honeywood. The report has reviewed the bushfire risks associated with the site and determined the fire management strategies that must be carried out to ensure the development on the site is at a reduced risk from bushfire attack.

Provided the elements detailed in this report are implemented, the development on the site is capable of compliance with AS 3959:2018 and any potential bushfire risk to the site is reduced.

The proposed lots have been assessed as compliant with bushfire attack levels (BAL) detailed in Table 2. The Council approval issued for the development should contain conditions requiring that the protective elements defined in this report and C13.6 Development Standards for Subdivision be implemented during the construction phase. Any new building required to comply with this assessment must be constructed to the bushfire attack level described in Table 2, within the prescribed building areas noted on the Bushfire Hazard Management Plan. Should the extent or classification of the bushfire prone vegetation surrounding the site alters from that assessed by this report, building on the lots affected by this variation may be constructed to a lower level subject to the preparation of a revised assessment.

Lot No.	Compliant BAL
1 & 2	BAL-19

- C13.6.1 Subdivision: Provision of hazard management areas.
 - Each lot has been assessed as being able to contain a HMA equal to, or greater than, those required for BAL-19.
- C13.6.2 Subdivision: Public and fire fighting access.
 - Each lot is to be provided with an access compliant with Table C13.2 Standards for property access.
 - The existing access to Lot 1 is consistent with the requirements of Table C13.2.
 - Access to the building area and on-site turning on Lot 2 is not required at the time of subdivision however must be constructed at the time of construction of a building required to comply with AS 3959
- C13.6.3 Subdivision: Provision of water supply for fire fighting purposes.
 - Lot 1 is to be provided with a static water supply for firefighting purposes consistent with the requirements of Table C13.5 Static Water Supply for Fire Fighting.
 - A static water supply is not required within Lot 2 at the time of subdivision, however, must be installed at the time of construction of a building required to comply with AS 3959.

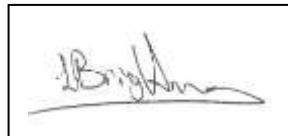
Any works required by this report are to be completed prior to the Council sealing the final Plan of Survey

See section 6 of this report for further details.

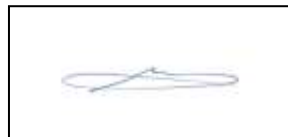
Although not mandatory, any increase in the construction standards above the assessed Bushfire Attack Level will afford improved protection from bushfire and this should be considered by the owner, designer and/or the builder prior to construction commencing. Hazard Management Areas must be established and maintained in a minimal fuel condition in accordance with this plan and the TFS guidelines. It is the owner's responsibility to ensure the long-term maintenance of the Hazard Management Areas in accordance with the requirements of this report.

This Report does not recommend or endorse the removal of any vegetation within or adjoining the site for the purposes of bushfire protection without the explicit approval of the local authority.

L Brightman
Bushfire Hazard Practitioner BFP-164
Scope 1, 2, 3a and 3b



N M Creese
Bushfire Hazard Practitioner BFP-118
Scope 1, 2, 3a, 3b and 3c

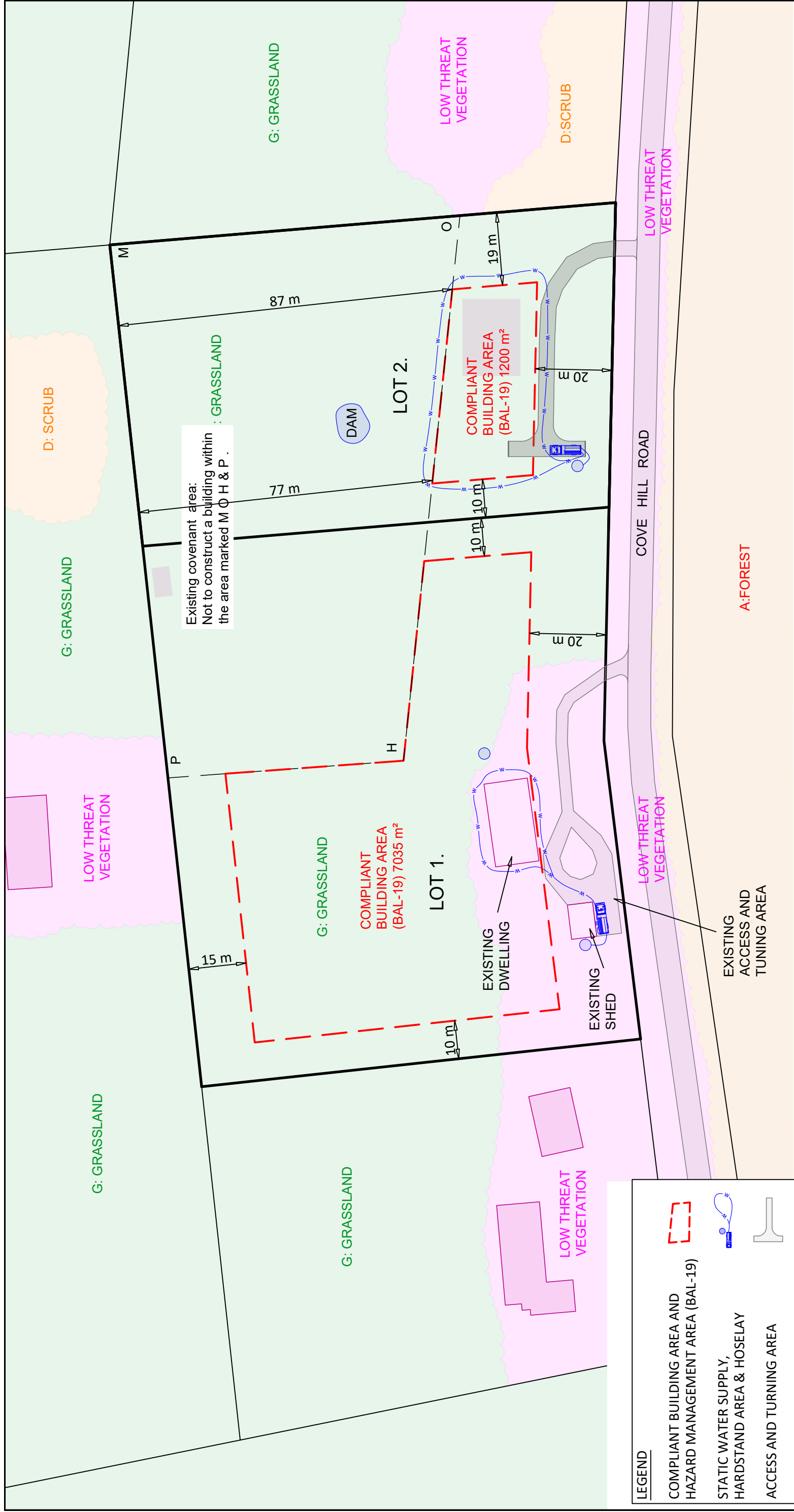


8. REFERENCES:

- *AS 3959:2018 - Construction of Building in Bushfire-Prone Areas.*
- *Tasmanian Planning Scheme - Brighton.*
- *The LIST - Department of Primary Industry Parks Water & Environment.*

9. GLOSSARY

AS 3959:2018	Australian Standards AS 3959:2018 <i>Construction of buildings in bushfire-prone areas.</i>
BAL (Bushfire Attack Level)	A means of measuring the severity of a building's potential exposure to ember attack, radiant heat, and direct flame contact, using increments of radiant heat expressed in kilowatts per metre squared, and the basis for establishing the requirements for construction to improve protection of building elements from attack by bushfire. The following BAL levels, based on heat flux exposure threshold are used within AS3959:2018; BAL-LOW, BAL-12.5, BAL-19, BAL-29, BAL-40, BAL-FZ.
Bushfire	An unplanned fire burning vegetation.
Bushfire Hazard Management Plan	A plan showing means of protection from bushfire in a form approved in writing by the Chief Officer.
Bushfire-Prone Area	An area that is subject to, or likely to be subject to, bushfire attack. Land that has been designated under legislation; or Has been identified under environmental planning instrument, development control plan or while processing and determining a development application.
Carriageway (also vehicular access)	The section of the road formation, which is used by traffic, and includes all the area of the traffic lane pavement together with the formed shoulder.
Class 1a, 1b, 2, 3, 4, 5, 6, 7, 8, 9a, 9b, 9c, 10a, 10b & 10c buildings	A system of classifying buildings of similar uses and functions to facilitate a referencing system within the National Construction Code.
Classified vegetation	Vegetation that has been classified in accordance with Clause 2.2.3 of AS3959:2018.
Distance to	The distance between the building or building area to the classified vegetation.
FDI (Fire Danger Index)	The chance of a fire starting, its rate of spread, its intensity, and the difficulty of its suppression, according to various combinations of air temperature, relative humidity, wind speed and both long- and short-term drought effects.
Firefighting water point	The point where a fire appliance can connect to a water supply for firefighting purposes. This includes a coupling in the case of a fire hydrant, offtake or outlet, or the minimum water level in the case of a static water body (including a dam, lake, or pool).
Hazard Management Area	The area between a habitable building or building area and bushfire-prone vegetation, which provides access to a fire front for fire fighting, which is maintained in a minimal fuel condition and in which there are no other hazards present which will significantly contribute to the spread of a bushfire.
Hose lay	The distance between two points established by a fire hose laid out on the ground, inclusive of obstructions.
Predominant vegetation	The vegetation that poses the greatest bushfire threat to the development site.
Slope Effective slope	The slope of the ground under the classified vegetation. The calculated slope under the classified vegetation considering variations in the topography.
Water supply - Reticulated (Fire hydrant)	An assembly installed on a branch from a water pipeline, which provides a valved outlet to permit a supply of water to be taken from the pipeline for fire fighting.
Water supply - Static	Water stored on a tank, swimming pool, dam, or lake, that is always available for firefighting purposes.



LEGEND

	COMPLIANT BUILDING AREA AND HAZARD MANAGEMENT AREA (BAL-19)
	STATIC WATER SUPPLY, HARDSTAND AREA & HOSELAY
	ACCESS AND TURNING AREA

PLANNING SCHEME COMPLIANCE
 C13.6, Development Standards for Subdivision, Bushfire Prone Areas Code, Tasmanian Planning Scheme - Brighton
 C13.6.1 Provision of hazard management area

- Acceptable Solution A1 (b): Each lot contains a building area with hazard management areas equal to, or greater than the separation distance required for **BAL-19** in Table 2.6 of Australian Standard AS 3959:2018
- Construction of buildings in bushfire-prone areas

C13.6.2 Public and fire fighting access

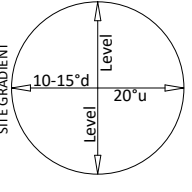
- Acceptable Solution A1(b): property access to the building areas are to comply with the requirements of Table C13.2, the Code.
- Access to the building and on-site turning, within Lot 2 is not required at the time of subdivision, however is to be provided at the time of construction of a building required in compliance with Table C13.2, the Code.

C13.6.3 Provision of water supply for fire fighting

- Acceptable Solution A2(b): A static water supply for firefighting must be provided to the lots in accordance with Table C13.5
- A static water supply, within Lot 2, is not required at the time of subdivision, however, will be required at the time of construction of a building required to comply with AS 3959:2018.

NOTES:

- This plan has been prepared for the purpose required by the client and depicts only those features specifically required. Not all features on the site are necessarily shown on this plan.
- This plan is not to be redistributed, reproduced, copied or used for any other purpose without the express permission of Lark & Creese Pty Ltd.



Prepared by L Brightman
 Accredited Bushfire Hazard Practitioner BFP-164
 Scope 1, 2, 3a and 3b
 Certified by N M Creese
 Accredited Bushfire Hazard Practitioner BFP-118
 Scope 1, 2, 3a, 3b and 3c
 6th June 2023

LARK & CREESE <i>Land & Engineering Surveyors</i> Pty Ltd 62 Channel Highway, Kingston +61 (03) 6229 6563 info@larkandcreese.com.au www.larkandcreese.com.au	BUSHFIRE HAZARD MANAGEMENT PLAN		406 COVE HILL ROAD HONEYWOOD C A Perry C L Haddrick	C.T.177072-2 9832555 N/A	TITLE PID CONTOUR	PROJECT DRAWING SCALE	30339 50943-01 1:1000@A3	DATE DRAWN CHECKED	08/06/2023 GS NC

BUSHFIRE-PRONE AREAS CODE

CERTIFICATE¹ UNDER S51(2)(d) *LAND USE PLANNING AND APPROVALS ACT 1993*

1. Land to which certificate applies

The subject site includes property that is proposed for use and development and includes all properties upon which works are proposed for bushfire protection purposes.

Street address:

406 COVE HILL ROAD, HONEYWOOD

Certificate of Title / PID:

C.T. 177072/2 / PID 9832555

2. Proposed Use or Development

Description of proposed Use and Development:

SUBDIVISION

Applicable Planning Scheme:

TASMANIAN PLANNING SCHEME - BRIGHTON

3. Documents relied upon

This certificate relates to the following documents:

Title	Author	Date	Version
DEVELOPMENT APPLICATION – SUBDIVISION	Lark & Creese Land and Engineering Surveyors	29 th May 2023	50943-01

¹ This document is the approved form of certification for this purpose and must not be altered from its original form.

4. Nature of Certificate

The following requirements are applicable to the proposed use and development:

<input type="checkbox"/> E1.4 / C13.4 – Use or development exempt from this Code	
Compliance test	Compliance Requirement
<input type="checkbox"/> E1.4(a) / C13.4.1(a)	Insufficient increase in risk

<input type="checkbox"/> E1.5.1 / C13.5.1 – Vulnerable Uses	
Acceptable Solution	Compliance Requirement
<input type="checkbox"/> E1.5.1 P1 / C13.5.1 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>
<input type="checkbox"/> E1.5.1 A2 / C13.5.1 A2	Emergency management strategy
<input type="checkbox"/> E1.5.1 A3 / C13.5.1 A2	Bushfire hazard management plan

<input type="checkbox"/> E1.5.2 / C13.5.2 – Hazardous Uses	
Acceptable Solution	Compliance Requirement
<input type="checkbox"/> E1.5.2 P1 / C13.5.2 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>
<input type="checkbox"/> E1.5.2 A2 / C13.5.2 A2	Emergency management strategy
<input type="checkbox"/> E1.5.2 A3 / C13.5.2 A3	Bushfire hazard management plan

<input type="checkbox"/> E1.6.1 / C13.6.1 Subdivision: Provision of hazard management areas	
Acceptable Solution	Compliance Requirement
<input type="checkbox"/> E1.6.1 P1 / C13.6.1 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>
<input type="checkbox"/> E1.6.1 A1 (a) / C13.6.1 A1(a)	Insufficient increase in risk
<input checked="" type="checkbox"/> E1.6.1 A1 (b) / C13.6.1 A1(b)	Provides BAL-19 for all lots (including any lot designated as 'balance')
<input type="checkbox"/> E1.6.1 A1(c) / C13.6.1 A1(c)	Consent for Part 5 Agreement

<input type="checkbox"/>	E1.6.2 / C13.6.2 Subdivision: Public and fire fighting access	
	Acceptable Solution	Compliance Requirement
<input type="checkbox"/>	E1.6.2 P1 / C13.6.2 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>
<input type="checkbox"/>	E1.6.2 A1 (a) / C13.6.2 A1 (a)	Insufficient increase in risk
<input checked="" type="checkbox"/>	E1.6.2 A1 (b) / C13.6.2 A1 (b)	Access complies with relevant Tables

<input type="checkbox"/>	E1.6.3 / C13.1.6.3 Subdivision: Provision of water supply for fire fighting purposes	
	Acceptable Solution	Compliance Requirement
<input type="checkbox"/>	E1.6.3 A1 (a) / C13.6.3 A1 (a)	Insufficient increase in risk
<input type="checkbox"/>	E1.6.3 A1 (b) / C13.6.3 A1 (b)	Reticulated water supply complies with relevant Table
<input type="checkbox"/>	E1.6.3 A1 (c) / C13.6.3 A1 (c)	Water supply consistent with the objective
<input type="checkbox"/>	E1.6.3 A2 (a) / C13.6.3 A2 (a)	Insufficient increase in risk
<input checked="" type="checkbox"/>	E1.6.3 A2 (b) / C13.6.3 A2 (b)	Static water supply complies with relevant Table
<input type="checkbox"/>	E1.6.3 A2 (c) / C13.6.3 A2 (c)	Static water supply consistent with the objective

5. Bushfire Hazard Practitioner

Name: NICHOLAS MARK CREESE

Phone No: 62296563

Postal Address: 62 CHANNEL HIGHWAY
KINGSTON, TAS, 7050

Email Address: info@larkandcreese.com.au

Accreditation No: BFP – 118


Scope: 1, 2, 3a, 3b and 3c

6. Certification

I certify that in accordance with the authority given under Part 4A of the *Fire Service Act 1979* that the proposed use and development:

- Is exempt from the requirement Bushfire-Prone Areas Code because, having regard to the objective of all applicable standards in the Code, there is considered to be an insufficient increase in risk to the use or development from bushfire to warrant any specific bushfire protection measures, or
- The Bushfire Hazard Management Plan/s identified in Section 3 of this certificate is/are in accordance with the Chief Officer's requirements and compliant with the relevant **Acceptable Solutions** identified in Section 4 of this Certificate.

Signed:
certifier



Name: N.M. Creese

Date: 6th June 2023

Certificate
Number: BFP-118

(for Practitioner Use only)



PROPOSED 1-LOT + BALANCE SUBDIVISION
406 COVE HILL ROAD
HONEYWOOD

LAND SUITABILITY FOR DOMESTIC
ON-SITE WASTEWATER MANAGEMENT

SEPTEMBER 2023





Cover

View north and downslope over proposed Lot 2. The excavator is at test pit A.
Photo: Bill Cromer, 1 September 2023.

Refer to this report as

Cromer, W. C. (2023). *Land Suitability for On-site Wastewater Management, proposed 1- lot + balance subdivision, 406 Cove Hill Road, Honeywood*. Unpublished report for C. Perry and C. Haddrick by William C. Cromer Pty. Ltd., 2 September 2023.

Important Notes

Report Purpose

This is a geotechnical report. It has been prepared by William C Cromer Pty Ltd (WCCPL) for use by stakeholders (including regulators, developers, designers, architects, surveyors, engineers, contractors, builders, building surveyors and owner-occupiers) involved with the proposed subdivision and subsequent residential development of the property named above. Its purpose is to assess the subdivision-scale capability of the land for on-site domestic wastewater management. Proposed Lot 2 will later require a separate site and soil assessment, and a wastewater design based on that assessment.

Report Distribution

Permission is hereby given by William C. Cromer as author, and the client, for this report to be copied and distributed to stakeholders, but only if it is reproduced in colour, and only distributed in full. No responsibility is otherwise taken for the contents.

This report may contain new geotechnical information. To enhance the geotechnical database of Tasmania, WCCPL may submit hard or electronic copies of the report to Mineral Resources Tasmania (which may publish it or a reference to it) and may upload it to the company website www.williamccromer.com. The local planning or building authority is encouraged to make this report (or a reference to it) available on line.

Footings and foundations

If mentioned in this report, foundations are (usually) natural materials into which man-made footings are placed to support man-made structures.

Limitations of this geotechnical report

Site investigations for geotechnical reports usually but not always involve digging test holes and taking samples, at locations thought appropriate based on site conditions and general experience. The reports only apply to the tested part(s) of the site, and if not specifically stated otherwise, results should not be extrapolated to untested areas.

The main aim of the investigations is to reasonably determine the nature of and variability in subsurface conditions at the time of inspection. The number and location of test sites, and the number and types of tests done and samples collected, will vary from site to site. Subsurface conditions may change laterally and vertically between test sites, so discrepancies may occur between what is described in the reports, and what is exposed by subsequent excavations. No responsibility is therefore accepted for (a) any differences between what is reported, and actual site and soil conditions for parts of an investigation site not assessed at the time of inspection, and (b) subsequent activities on site by others, and/or climate variability (eg rainfall), which may alter subsurface conditions at the sites from those assessed at the time of inspection.

To the extent permitted by law, WCCPL (including its employees and consultants) excludes all liability to any person for any consequences, including but not limited to all losses, damages, costs, expenses and any other compensation, arising directly or indirectly from using this document (in part or in whole) and any information or material contained in it.





SUMMARY

Subdivisional-scale site investigations (including the digging and sampling of two excavator test pits) have been completed on a proposed 1-lot + balance residential subdivision of a 2.6ha property at 406 Cove Hill Road in Honeywood.

The site and area is unsewered, and investigations were aimed at assessing the suitability of the proposal to acceptably manage on-site domestic wastewater (Lot 1 will contain the existing house and wastewater system).

Lot 1 will be 1.63ha, and 2 will be 1.00ha, in size.

The property occupies a north-facing hillside sloping at angles in the 10 – 14° range.

The underlying bedrock is Triassic-age sedimentary rocks. The duplex soil profile is about 0.7m thick, over extremely weathered sandstone bedrock. The surface layer is a reactive orange brown, high plasticity silty and sandy clay about 0.4m thick..

The capability of the proposed lots to manage on-site domestic wastewater has been assessed against the Tasmanian Director of Building Control's 2017 *Director's Guidelines for On-site Domestic Wastewater Management V2*, and specifically Sections 1 and 3 of the *Guidelines*.

This assessment has established that:

- with respect to Section 1 of the *Guidelines*,
 - the existing on-site wastewater system on proposed Lot 1 complies with Acceptable Solution A1, and
 - any future wastewater system on proposed Lot 2 will comply with Acceptable Solution A1, and
- with respect to Section 3 of the *Guidelines*,
 - the existing on-site domestic wastewater system on Lot 1 complies with Acceptable Solutions A1 – A5 and A7, and Performance Criterion P6, and
 - a future wastewater system on proposed Lot 2 can similarly comply with A1 – A5 and A7, and Performance Criterion P6.

On these bases, from a domestic wastewater management perspective, the proposed subdivision should proceed.

This report will inform, but not replace the need to undertake, lot-specific site and soil assessments, and system design, for future landowners.





1 INTRODUCTION

1.1 Purpose of this report

A 1-lot + balance residential subdivision is proposed at 406 Cove Hill Road, Honeywood (Figure 1, and Attachment 1 maps).

The subdivision is shown in Figure 2, where Lot 1 of 1.63ha includes the existing house and shed, and new Lot 2 is 1.00ha.

The area is not serviced by reticulated sewerage, so domestic wastewater will need to be retained and managed on the new lot.

In a letter dated 26 July 2023 to surveyors Lark & Creese, Brighton Council requested “a *wastewater report from a suitably qualified wastewater designer identifying the location and status of the existing wastewater system that complies with the setbacks listed in the Directors Guidelines for On-site Wastewater Management Systems in relation to the proposed subdivision and that the new proposed block is suitable of sustaining a wastewater system considering any relevant environmental restraints.*”

The purpose of the present report is to describe the status and compliance of the existing wastewater system on Lot 1, and to assess the suitability of Lot 2 to manage on-site domestic wastewater in a manner consistent with current regulations.

1.2 Personnel and date of investigations

The investigations were conducted by Bill Cromer of *William C Cromer Pty Ltd* (WCC) on 1 September 2023.

Two excavator test pits were dug, logged, sampled and photographed on the property (Figure 2). Mr. G. Edwards of *G. Edwards Excavations Pty Ltd* operated the 2t excavator.

1.3 Regulatory requirements for on-site domestic wastewater management

Brighton Council operates under the *Tasmanian Planning Scheme*. Within the Scheme, there is no specific Code in the State Planning Provisions dealing with On-site Domestic Wastewater Management Systems (OWMSs), and Council has no Local Provisions Schedule for wastewater.

Accordingly, assessing land suitability for on-site domestic wastewater draws on the Tasmanian Director of Building Control’s 2017 *Director’s Guidelines for On-site Domestic Wastewater Management V2* (the *Guidelines*).

The *Guidelines* complement Australian Standard AS/NZS1547 *On-site domestic wastewater management*.

Relevant Sections of the Guidelines addressed in this report are:





- **Section 1 (Area required for On-site wastewater management – new dwellings and non-residential buildings)**, and
- **Section 3 (Standards for Wastewater Land Application Areas¹)**.

1.4 Limitations of this report

The assessment described in this report has been done at subdivision level. It does not constitute wastewater assessments at individual lot level, and so does not negate the need for separate site and soil assessment and wastewater designs for future houses. However, the findings of this report should inform future wastewater assessments.

Refer also to the Important Notes on page 2 of this report.

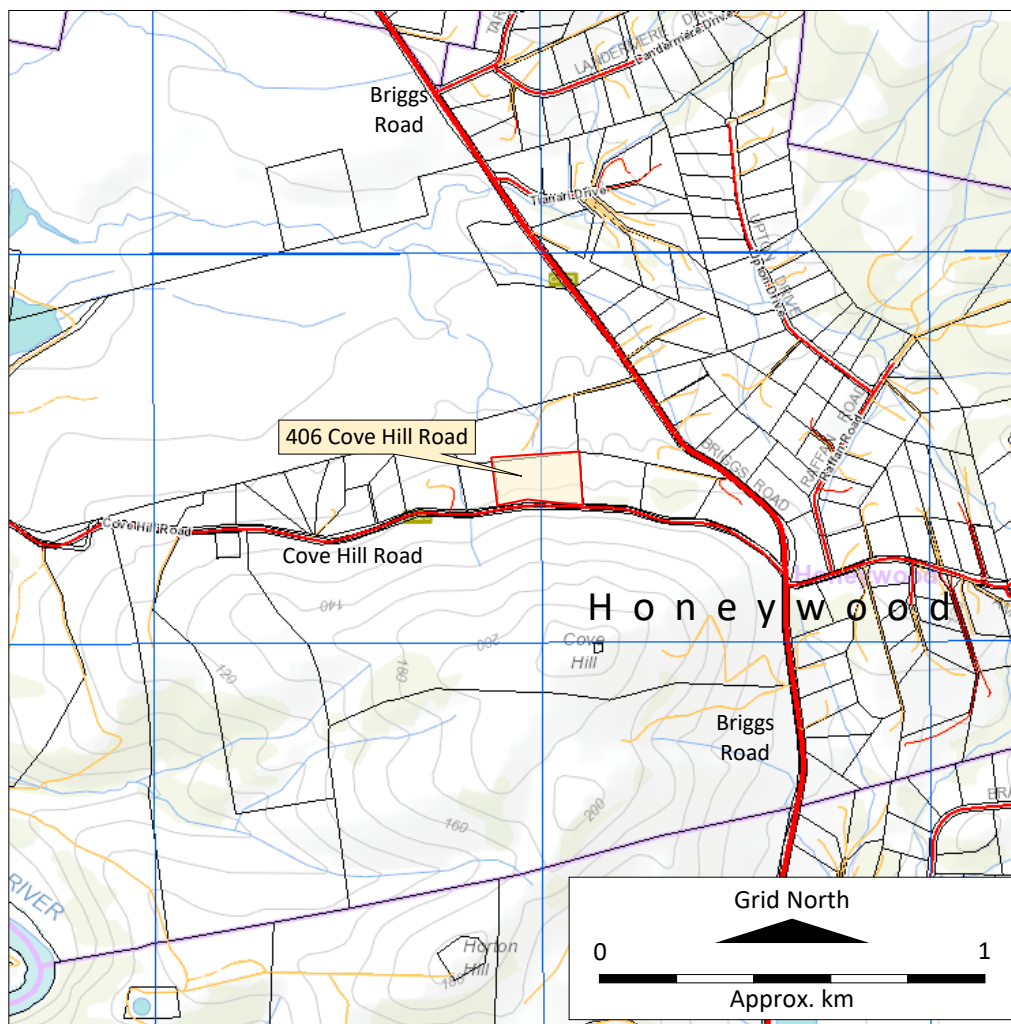


Figure 1. Location of the proposed subdivision in Honeywood.
Source: www.thelist.tas.gov.au

¹The Land Application Area (LAA) is defined in the *Guidelines* as “an area of land used to apply effluent from a wastewater treatment unit and reserved for future wastewater application (where required)”. This is interpreted as meaning (a) an area of land to which wastewater is directly applied (the “wetted area” in this report), plus (b) a reserve area, defined in Section 1.9 of AS/NZS1547:2012 as an “area set aside for future use as a land application area to replace or extend the original land application system.” In relation to the size of a reserve area, Section 5.5.3.4 of AS/NZS1547:2012 states: “A reserve area of 100% of the design area (ie wetted area) or other equivalent mitigation measure should be considered as part of the risk management process to be available on a site....” Site specific design of a wastewater system may mitigate or remove the need for a reserve area, particularly on small lots (Section C5.5.3.4 of AS/NZS1547:2012).





2 SITE DESCRIPTION

2.1 Location, zoning, topography and vegetation

The rectangular-shaped 2.63ha property has a 220m frontage on Cove Hill Road (Figures 1 and 2, and Maps 1.1 – 1.4 in Attachment 1).

It is zoned *Rural Living* in the *Brighton Local Provisions Schedule*.

Topographically, the property occupies a north-facing hillside sloping at angles in the 10 – 14° range. Smaller slope segments are up to 25°, noticeably along a break of slope subparallel to Cove Hill Road (Map 1.3) Relief is about 30m, from 110mASL along the higher southern boundary, to 80mASL along the lower northern boundary.

The property is cleared to pasture, with scatter *Acacia* trees (Plates 1 – 6 in Attachment 2).

2.2 Surface drainage

There are no defined natural watercourses on the property. A short artificial drain directs some surface runoff to a small, centrally located dam on Lot 2.

2.3 Geology

2.3.1 Published geology of the property

The geological map² of the area (Map 1.4 in Attachment 1) shows the property and most of the adjacent area to be underlain by Triassic-age sedimentary rocks. Jurassic dolerite has intruded the sedimentary rocks on Cove hill to the south.

2.3.2 My interpretation of the geology

Outcrops of sandstone occur in cuttings along Cove Hill Road, and occasional boulders (subcrops?) of sandstone are present along the upper parts of Lot 2.

The test pitting on Lot 2 has confirmed the published geology: dense sand interpreted as extremely weathered sandstone bedrock was encountered in each of pits A and B at depths less than one metre.

2.4 Soils

2.4.1 Texture and thickness

Soil texture and thickness of soils are summarised in Table 1. It is reasonably inferred that soils similar to those in test pits A and D are present elsewhere over the property.

² Forsyth, S. M. (compiler). Digital Geological Atlas 1:25,000 Scale Series. Sheet 5226. Richmond. Mineral Resources Tasmania.





The duplex soil profile (Layers 1 and 2) is about 0.7m thick, over extremely weathered sandstone bedrock. The surface layer is a reactive orange brown, high plasticity silty and sandy clay about 0.4m thick.

Table 1. Summary of test pits A and B. Test pit locations are shown in the Maps in Attachment 1. Photographs are presented in Attachment 2.

Client	PERRY & HADDRICK	Test pit	A	B
Location	406 Cove Hill Road Honeywood	Depth dug (m)	0.8	0.8
Date dug	1-Sep-23	Easting (GDA94)	523080	523083
		Northing (GDA94)	5269396	5269434
		Water inflow (depths in m)	None	None
		Est. inflow rate (L/min)		
		Water table depth (m)	N/A	

No.	Layer	Details	USCS	Interpretation			
				Horizon	AS/NZS 1547 soil category	Figures are depths to top and bottom of layer, in metres	
1	CLAY	Includes silty and sandy CLAY; orange-brown; high plasticity, reactive; cloddy, pedal; subvertical fractures to c. 0.25m; M<PL; H;	CH	Duplex soil horizon	6	0 to 0.4 D@0.4	0 to 0.45 D@0.4
2	Clayey SAND	Includes silty clayey SAND; light yellowish brown with occasional white patches; non - lastic to slightly plastic; gradational base; D, D-VD	SC		5	0.4 to 0.65 D@0.6	0.45o 0.7 D@0.6
3	Silty SAND	Yellowish brown; D, D-VD	SP	Extremely weathered sandstone bedrock	6	0.65 to 0.8 CR	0.7 to 0.8 CR

Notes and abbreviations

- USCS = Unified Soil Classification System
- Grey cells indicate a missing layer or layers in a test pit
- Easting and Northing coordinates from Google Earth, hand-held GPS, drone photos. Datum is GDA94.
- Excavability** Equipment = 2t Kubota excavator; 0.3m GP bucket; 3 teeth; Operator: Glen Edwards
- EAR = end as required; NR = no refusal; CR = close to refusal; R = refusal.
- Samples** D = disturbed sample; U50 = Undisturbed 50mm diameter drive tube sample
- Weathering** For rock only. F = fresh; SW = slightly weathered; MW = moderately weathered; HW = highly weathered; EW = extremely weathered (ie soil properties; material can be remolded in the hand, with or without water)
- Moisture** D = dry; M = moist (M<=>PL = moisture less than, equal to or greater than Plastic Limit); W = wet.
- Water inflow** **Water table**
- Consistency** Fb = Friable (crumbles to powder when scraped with thumbnail)
S = Soft (Easily penetrated by fist; 25 – 50kPa)
F = Firm (Easily penetrated by thumb; 50 – 100kPa)
St = Stiff (Indented with thumb; penetrated with difficulty; 100 – 200kPa)
VSt = Very stiff (Easily indented with thumbnail; 200 – 400kPa)
H = Hard (Indented by thumbnail with difficulty; >400kPa)
- Rel density** VL = Very loose (ravelling)
L = Loose (easy shovelling)
MD = Medium dense (hard shovelling)
D = Dense (picking)
VD = Very dense (hard picking)





2.4.2 AS/NZS1547 soil categories

AS/NZS1547 – 2012 divides soils for wastewater management into six categories, ranging from Gravels and Sands (Category 1) to Heavy clays (Category 6) with decreasing capability to accept applied wastewater.

Table 1 shows that in the two test pits, the following soil categories have been visually estimated from texture, relative density, consistency and structure:

Category 5:	Layer 2
Category 6:	Layers 1 and 3

2.4.3 Soil dispersion

Tunnel erosion is indicative of dispersive soils.

No tunnel erosion was observed over the proposed subdivision.

Two soil samples from each of test pits A and B were tested for dispersion. Results (Figure 3) show that the Layer 1 clayey surface soils are slightly dispersive (Emerson Class No. 3) and the Layer 2 soils are non-dispersive (Emerson Class No. 7).

These results suggest soil dispersion ought to be a factor in the design of on-site wastewater disposal systems.

2.5 Fill

Apart from the wall on the small dam no areas of fill were observed on Lot 2. If some fill has gone unnoticed, it will be of only minor or no consequence for on-site wastewater management.

2.6 Groundwater

2.6.1 Published bore holes in the district

The state government [Groundwater Information Access Portal](#) shows a dozen or more water bores in the Honeywood district, but the closest to the proposed subdivision is about 600m to the north, on Briggs Road.

2.6.2 Groundwater occurrence during site investigations

No shallow occurrence of groundwater were observed in test pits during the site investigations.

Permanent groundwater conditions are expected to exist in the bedrock beneath the property and throughout the area, but at depths which will not affect residential development and on-site domestic wastewater management.



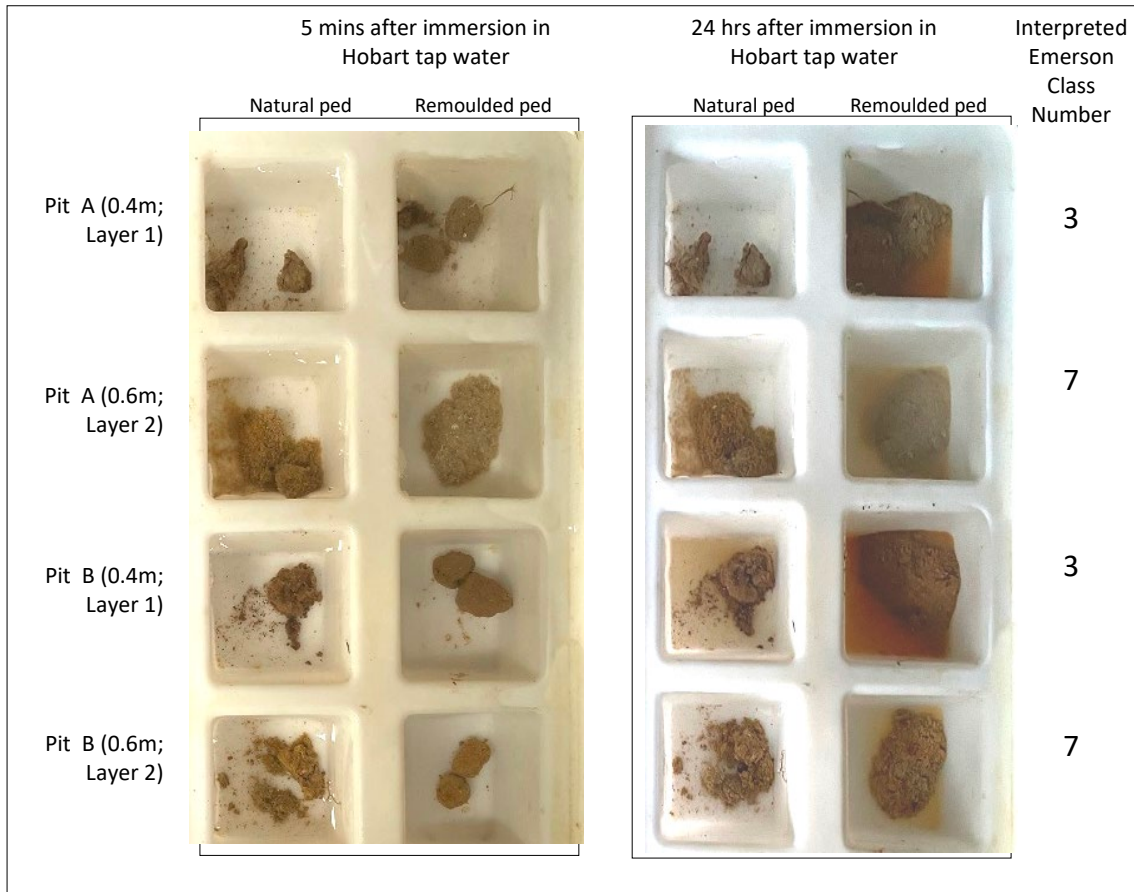


Figure 3. Soil dispersion testing for soil samples from test pits A and B.

2.7 Slope stability

2.7.1 Published evidence of instability

2.7.1.1. Landslide hazard bands

Most of the slopes on and surrounding Cove Hill are in the Low or Medium Landslide Hazard Bands. Lots 1 and 2 and in the Low Landslide Hazard Band (Map 1.1 in Attachment 1).

2.7.1.2 Landslide inventory

The Mineral Resources Tasmania landslide database records three catalogued landslides in the district – two on the Meehan Range about 2km northeast of the proposed subdivision, and one on the bank of the Jordan River 2km to the west.

2.7.2 Evidence of slope instability on the proposed subdivision

There is no evidence of slope instability over the proposed subdivision. Despite the moderate slope angles, the shallow depth to weathered but inferred relatively stable bedrock reduces the potential for slope failure.



2.7.3 Risk of slope instability on the proposed subdivision

The risk of landsliding or other forms of slope instability over the subdivision is regarded as Low.

On-site wastewater management will not alter the risk of slope instability.

2.8 Existing on-site wastewater system at 406 Cove Hill Road

The existing wastewater system (Figure 2 and Plate 1) comprises an *Econocycle* aerated wastewater treatment system (AWTS), and surface irrigation of secondary treated effluent in a Land Application Area on the slopes below the house.



Plate 1. The *Econocycle* AWTS at 406 Cove Hill Road.





3 DISCUSSION

3.1 Land suitability fundamentals for wastewater management

The purpose of Section 1 of the *Guidelines* is “to ensure sufficient land is available for sustainable onsite wastewater management for buildings.”

“Sufficient land” area on each lot depends fundamentally on:

1. the wastewater volume (Section 3.2 below) requiring on-site management; this depends on the number of people in a house (Section 3.3 below), which is calculated from the number of bedrooms,³
2. the minimum area of land required to dispose of the wastewater [the “wetted area”, (Section 3.5 below), which in turn depends on the soil category (Section 3.4) below and level of wastewater treatment (Section 3.5)]; this area, plus an equivalent back-up area, is the Land Application Area, or LAA (see the footnote on page 5 which defines the LAA, wetted area and the reserve area)
3. horizontal and vertical separation distances (“setbacks”; Section 3.9 below) between a LAA and sensitive features such as buildings, property boundaries, water bodies, groundwater bores and (in a vertical sense) groundwater, and limiting layers such as bedrock and Category 6 clays).

These issues are briefly discussed in the following Sections.

3.2 Wastewater requiring daily management (the daily wastewater load)

In accord with Table H1 of AS/NZS1547:2012, each person in a house supplied with reticulated mains water (as at 406 Cove Hill Road) generates 150L/day of wastewater.

3.3 Number of people in a house

In accord with Table 1 of the *Guidelines*, the minimum number of people in a house is

- 2 people for 1 bedroom
- 4 people for two bedrooms
- 5 people for three bedrooms, and
- for more than three bedrooms, 5 people plus 1 person for each additional bedroom.

3.4 Soil categories

Each soil layer in Table 1 has been assigned a soil category in accord with Table E1 of AS/NZS1547 – 2012. The overall soil category of a soil profile at any location is defined [in

³“Bedroom” also includes any habitable room in a house (eg study, rumpus room) which is a room used or potentially used primarily as a bedroom.





Note (i) of Table 3 of the *Guidelines*] as the predominant soil category in the surface 1.5m of the profile⁴.

Inspection of Table 1 shows that the overall soil category in both test pits is Category 6.

Overall soil categories can be modified (to a lower-numbered Category) by the addition of a sufficient thickness of soil (either from on-site or off-site).

3.5 Minimum wetted area requirement

In accordance with Table L.4.2 of AS/NZS1547 – 2012, the minimum wetted area requirement for on-site wastewater disposal is the daily wastewater volume divided by a recommended rate of application for a particular soil category. The application rate is called the Design Loading Rate (DLR) or, for irrigated systems, the Design Irrigation Rate (DIR).

DLRs and DIRs are both expressed as L/day/m² (the same as mm/day) and vary with soil category and level of wastewater treatment. They are listed in Tables L1, M1 and N1 for soil categories in AS/NZS1547 – 2012.

Example: A three-bedroom house generates 750L/day of wastewater. Assume the overall soil category is 6. The DLR from Table L1 (for conventional trenches or beds) is undefined: instead, Notes 2 and 3 to the Table indicate special wastewater designs will be necessary. In my experience, DLRs no higher than about 2 – 3L/day/m² are required for primary treated wastewater. The DIR for secondary treated wastewater and irrigation systems in Table M1 is 2L/day/m². Conservatively, in either case, and adopting 2L/day/m², the minimum wetted area needed is 750L/day / 2L/day/m² = 375m².

3.6 Level of wastewater treatment

Domestic wastewater may be treated to primary or secondary level. These are defined in the *Guidelines* as:

- primary treatment means “*effluent that has been treated via the separation of suspended material from wastewater by settlement and/or flotation in septic tanks or primary settling chambers*”, and
- secondary treatment means “*effluent that has been treated via aerobic biological processing and settling or filtering of wastewater to a quality equal to, or less than, 20mg/L BOD5 and 30mg/L suspended solids*”, typically in an aerated wastewater treatment system (AWTS).

⁴ For example, a Category 1 layer 0.7m thick over a Category 6 layer 0.8m is a Category 6 profile because the clay is the dominant category in the surface 1.5m. If the Category 1 layer is 0.8m thick the profile is Category 1 because the sand is the dominant category in the surface 1.5m. Soil categories can be lowered (improved) by adding (importing) soil of a suitable category.





3.7 Minimum LAA area requirement for existing soils on the subdivision

By definition, the LAA includes the minimum wetted area requirement and an equivalent reserve area: ie it is twice the wetted area. In the example in Section 3.5, the LAA for Category 6 overall soil profiles is 750m².

Table 2 (Table 3 of the Guidelines) also sets out minimum areas to be set aside per bedroom depending on the overall soil category and the level of wastewater treatment. These minimum areas may differ from those calculated on a hydraulic capability basis in the Example in Section 3.5. The higher area takes precedence over the lower area.

Example: Table 2 indicates that a three bedroom house on Category 6 soils treating wastewater to primary or secondary level needs to set aside 540m² (primary treatment), or depending on slope angle⁵, 390m² – 780m² (secondary treatment).

Table 2. Minimum areas to be set aside per bedroom for overall soil categories 1 – 6 depending on the level of wastewater treatment.

Source: Table 3 of the *Guidelines*

Soil category for top 1.5m of soil profile as listed in AS/NZS 1547, (refer notes)	Area required per bedroom for primary treatment effluent (m ²) reduce by 50% if secondary treated effluent discharged to a trench, bed or mound	Area required per bedroom for irrigated secondary treated effluent (m ²)		
		Slope		
		<10%	10-20%	>20%
1 (Sand)	50	50	60	100
2 (Sandy loam)	60	55	66	110
3 (Loam)	90	70	84	140
4 (Clay loam)	120	80	96	160
5 (Light clay)	180	100	120	200
6 (Clay)	180	130	156	260

Notes to Table 3

- i. Where the soil in the upper 1.5 m of the soil profile comprises two or more soil categories, the required area must be calculated on the basis of the requirements for the predominant soil category.
- ii. If dispersive soils or a limiting layer are encountered within the upper 1 m of the soil profile, then the area required must be calculated on the basis of the requirements for Category 6 soil.
- iii. Minimum land application area for primary treated wastewater including land that is reserved for future waste land application.
- iv. Slope means the average gradient of the land across the land application area.

⁵ The slope angles in Table 2 are in percent. To convert to degrees, divide percent approximately by 2. So >20% is >10° (actually 11.3°) which applies over almost all of proposed Lot 2. Sufficient area is available.





3.8 Summary of LAA minimum areas

Table 3 brings Sections 3.2 – 3.6 together, and notwithstanding Table 6 summarises the LAA sizes required for:

- houses with up to 5 bedrooms
- primary or secondary treated wastewater systems, and
- the full range of soil categories.

The red-bordered row highlights Category 6 overall soil profiles, which (in the absence of soil modification) applies to both Lots.

Accordingly, again in the absence of soil modification, reading from left to right in the red-bordered row, and depending on the number of bedrooms in a future house and the level of wastewater treatment (primary or secondary), the size of the LAA on Lot 2 ranges from 150m² to 1,050m².

Appropriate soil modification can reduce the overall soil Category to any Category in the 1 – 5 range, so that LAA minimum areas may then range across the full range in Table 3 (ie from 12m² – <1,050m²).

Soil modification using additional soil typically requires wastewater systems in raised beds.

3.9 Area required for On-site wastewater management: compliance with Section 1 of the *Guidelines*

Table 4 lists Acceptable Solutions and Performance Criteria for compliance with Section 1 of the *Guidelines*, and shows that Lots 1 and 2 both comply with Acceptable Solution A1.

3.10 Horizontal and vertical separation (setback) distances for LAAs: compliance with Section 3 of the *Guidelines*

Table 5 lists the horizontal and vertical separation requirements for LAAs to comply with Acceptable Solutions or Performance Criteria in Section 3 of the *Guidelines*.

A review of the site and soil assessment in this report indicates that the existing on-site domestic wastewater system on Lot 1 complies with Acceptable Solutions A1 – A5 and A7, and Performance Criterion P6. A future wastewater system on proposed Lot 2 can similarly comply with Acceptable Solutions A1 – A5 and A7, and Performance Criterion P6.





Table 3. LAA sizes recommended for all six soil categories based on DLRs and DIRs and primary and secondary wastewater treatment. Based on Tables L1, M1 and N1 in AS/NZS1547 – 2012. See Section 3.8.

Level of wastewater treatment	Primary (trench or bed)					Secondary (trench or bed)					Secondary – irrigation									
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	2	4	5	6	7
Bedrooms in house																				
Persons in house																				
Wastewater volume (L/day)	300	600	750	900	1050	300	600	750	900	1050	300	600	750	900	1050	300	600	750	900	1050
Soil category	Soil type	DLR	LAA (m ² ; includes minimum wetted area + equivalent reserve area)					DLR	LAA (m ² ; includes minimum wetted area + equivalent reserve area)					DIR	LAA (m ² ; includes minimum wetted area + equivalent reserve area)					
1	Gravels and sands	20	30	60	75	90	105	50	12	24	30	36	42	5	120	240	300	360	420	
2	Sandy loams	15	40	80	100	120	140	50	12	24	30	36	42	5	120	240	300	360	420	
3	Loams	10	60	120	150	180	210	30	20	40	50	60	70	4	150	300	375	450	525	
4	Clay loams	6	100	200	250	300	350	10	60	120	150	180	210	3.5	171	343	429	514	600	
5	Light clays	4	150	300	375	450	525	8	75	150	188	225	263	3	200	400	500	600	700	
6	Medium to heavy clays	2	300	600	750	900	1050	4	150	300	375	450	525	2	300	600	750	900	1050	

Notes

Persons in house: from Table 1 of the Director's Guidelines for On-site Domestic Wastewater Management
Wastewater volume: from Table H1 of AS/NZS1547 – 2012: 150L/day/person assuming reticulated supply.
LAA = Land Application Area. Calculated as 2 x (wastewater volume / DLR or DIR). Includes wetted area + equivalent reserve area.
Soil category and Soil type: from Table E1 of AS/NZS1547 – 2012
DLR = Design Loading Rate (L/day/m²). The most conservative (lowest) of listed values in Table L1 of AS/NZS1547 – 2012 have been adopted.
(The underlined value of 4 L/m²/day for secondary treatment is not listed in Table L1. It is a value assigned here.)
DIR = Design Irrigation Rate (L/day/m²). From Table M1 of AS/NZS1547.





Table 4. Lots 1 and 2 in the proposed subdivision comply with Acceptable Solution A1 in Section 1 of the *Guidelines*.

	Acceptable Solutions		Performance Criteria	Comment
A1	A new dwelling must be provided with a land application area that complies with Table 3.	P1	A new dwelling must be provided with a land application area that meets all of the following: a) The land application area is sized in accordance with the requirements of AS/NZS 1547; and b) A risk assessment in accordance with Appendix A of AS/NZS 1547 has been completed that demonstrates that the risk is acceptable.	Lot s 1 and 2 comply with A1. Sufficient area is available.

4 CONCLUSIONS

The existing on-site wastewater system at 406 Cove Hill Road is located and is operating in accord with Sections 1 and 3 of the *Guidelines*, and will continue to do so after Lot 1 (1.63ha) is created in the proposed subdivision.

Lot 2 of the proposal is of a size (1 ha) capable of managing on-site domestic wastewater in a similarly environmentally acceptable manner, and in accord with Sections 1 and 3 of the *Guidelines*.

This subdivisional-scale assessment does not preclude the requirement of separate site and soil assessments, and system design, on Lot 2 for a future owner. However, the present report will inform future site assessors and designers.

5 RECOMMENDATION

From the perspective of on-site wastewater management, the proposed subdivision should proceed.

W. C. Cromer
Principal

This report is and must remain accompanied by the following Attachments

Attachment 1. Published maps of the Honeywood area including the proposed subdivision, and locations of test pits dug 1 September 2023 (5 pages)

Attachment 2. Site and test pit photographs (1 September 2023) (6 pages)





Table 5. Lots 1 and 2 in the proposed subdivision comply with Acceptable Solution A1 - A5 and A7, and Performance Criterion P6, in Section 3 of the *Guidelines*.

Acceptable Solutions		Performance Criteria		Comment
A1	Horizontal separation distance from a building to a land application area must comply with one of the following: (a) be no less than 6m; or (b) be no less than: (i) 3m from an upslope building or level building; (ii) If primary treated effluent to be no less than 4m plus 1m for every degree of average gradient from a downslope building; (iii) If secondary treated effluent and subsurface application, no less than 2m plus 0.25m for every degree of average gradient from a downslope building.	P1	a) The land application area is located so that: (i) the risk of wastewater reducing the bearing capacity of a building's foundations is acceptably low; and (ii) is setback a sufficient distance from a downslope excavation around or under a building to prevent inadequately treated wastewater seeping out of that excavation.	Lot 1 complies with A1. A house must be located in the upper part of Lot 2. Development can comply with A1
A2	Horizontal separation distance from downslope surface water to a land application area must comply with (a) or (b) (a) be no less than 100m; or (b) be no less than the following: (i) if primary treated effluent 15m plus 7m for every degree of average gradient to downslope surface water; or (ii) if secondary treated effluent and subsurface application, 15m plus 2m for every degree of average gradient to downslope surface water.	P2	Horizontal separation distance from downslope surface water to a land application area must comply with all of the following: a) Setbacks must be consistent with AS/NZS1547 Appendix R; b) A risk assessment in accordance with Appendix A of AS/NZS 1547 has been completed that demonstrates that the risk is acceptable	Lot 1 complies with A2. A future LAA can be located so as not to be in the catchment of the dam on Lot 2. Complies with A2.
A3	Horizontal separation distance from a property boundary to a land application area must comply with either of the following: (a) be no less than 40m from a property boundary; or (b) be no less than: (i) 1.5m from an upslope or level property boundary; and (ii) If primary treated effluent 2m for every degree of average gradient from a downslope property boundary; or (iii) If secondary treated effluent and subsurface application, 1.5m plus 1m for every degree of average gradient from a downslope property boundary.	P3	Horizontal separation distance from a property boundary to a land application area must comply with all of the following: (a) Setback must be consistent with AS/NZS1547 Appendix R; and (b) A risk assessment in accordance with Appendix A of AS/NZS 1547 has been completed that demonstrates that the risk is acceptable.	Lot 1 complies with A3. A future LAA can be located so as not to be in the catchment of the dam on Lot 2. Complies with A3.
A4	Horizontal separation distance from a downslope bore, well or similar water supply to a land application area must be no less than 50m and not be within the zone of influence of the bore whether up or down gradient.	P4	Horizontal separation distance from a downslope bore, well or similar water supply to a land application area must comply with all of the following: (a) Setback must be consistent with AS/NZS 1547 Appendix R; and (b) A risk assessment completed in accordance with Appendix A of AS/NZS 1547 demonstrates that the risk is acceptable	Nearest bore is 600m north. Lots 1 and 2 comply with A4.
A5	Vertical separation distance between groundwater and a land application area must be no less than: (a) 1.5m if primary treated effluent; or (b) 0.6m if secondary treated effluent	P5	Vertical separation distance between groundwater and a land application area must comply with the following: (a) Setback must be consistent with AS/NZS 1547 Appendix R; and (b) A risk assessment completed in accordance with Appendix A of AS/NZS 1547 that demonstrates that the risk is acceptable	No permanent groundwater expected within 1.5m depth. Lots 1 and 2 comply with A5.
A6	Vertical separation distance between a limiting layer and a land application area must be no less than: (a) 1.5m if primary treated effluent; or (b) 0.5m if secondary treated effluent.	P6	Vertical setback must be consistent with AS/NZS1547 Appendix R.	Lots 1 does, and Lot 2 can, comply with P6.
A7	nil	P7	A wastewater treatment unit must be located a sufficient distance from buildings or neighbouring properties so that emissions (odour, noise or aerosols) from the unit do not create an environmental nuisance to the residents of those properties <i>Note: Part 6 of the Building Act 2016 specifies requirements for protection work which apply to plumbing work including a wastewater treatment unit.</i>	Lots 1 does, and Lot 2 can, comply with P7.





Attachment 1

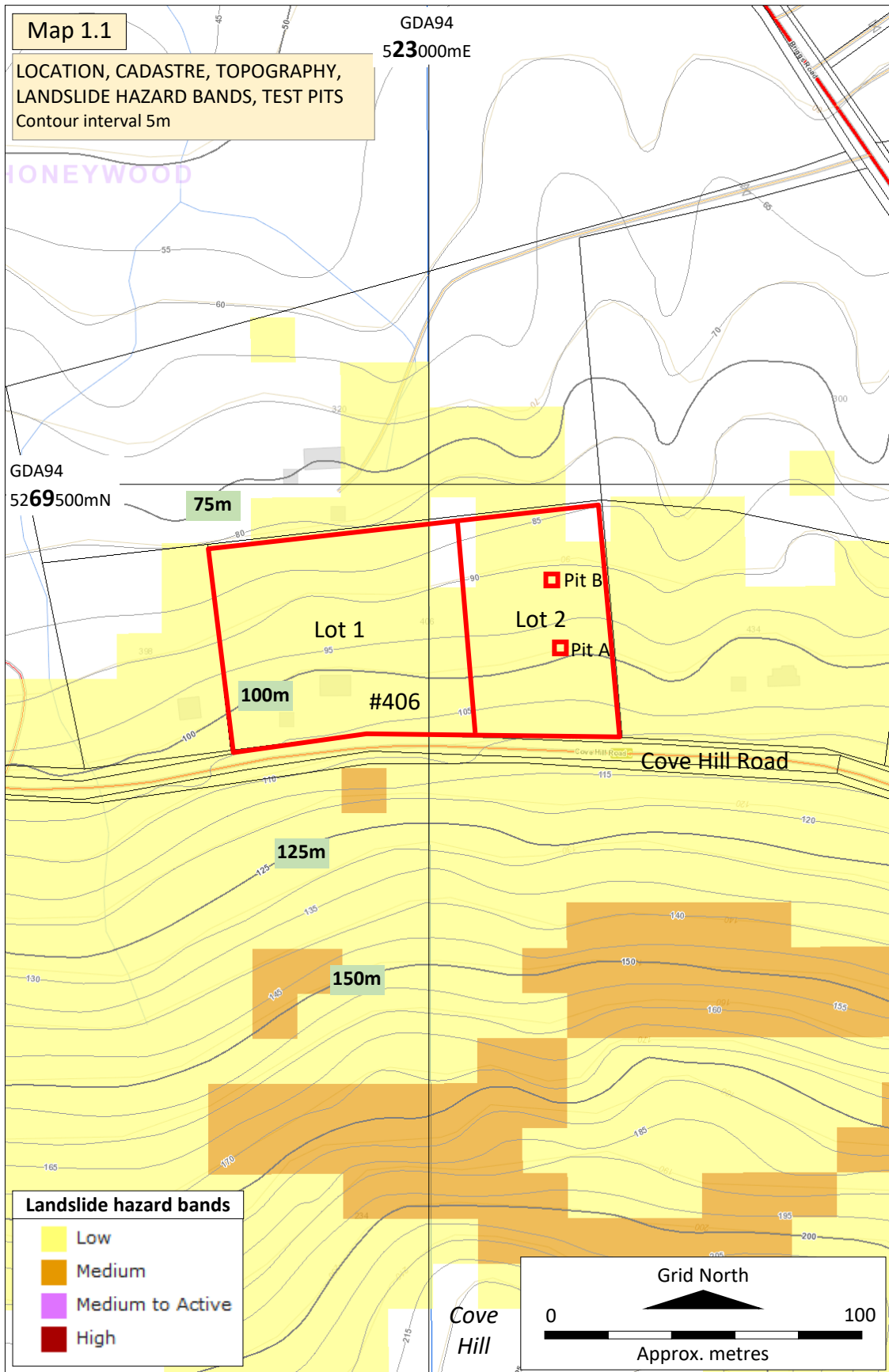
(5 pages including this page)

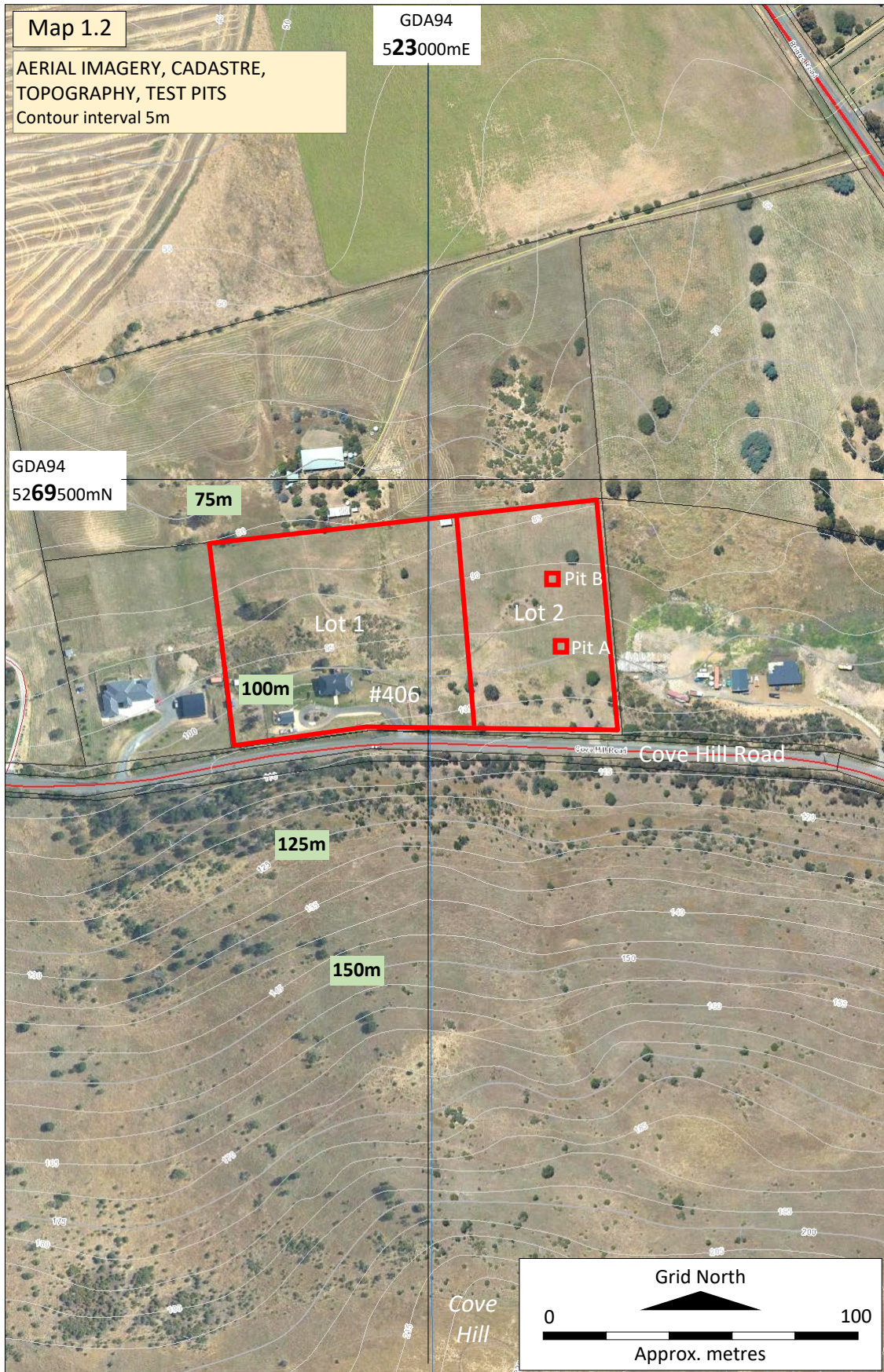
Published maps of the Honeywood area including the proposed subdivision, and locations of test pits dug 1 September 2023

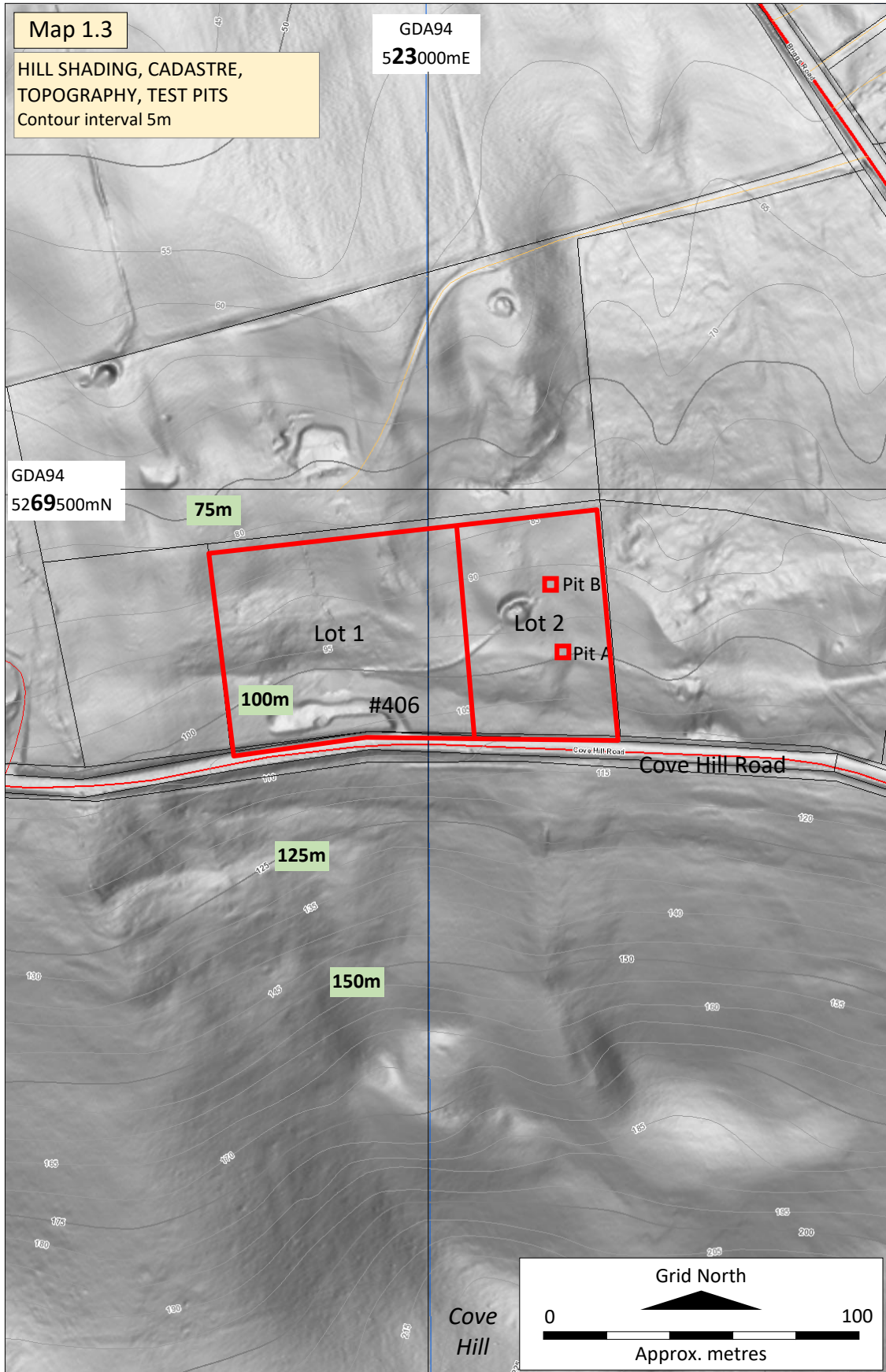
Map 1.1	Location, cadastre, topography, landslide hazard bands, test pits
Map 1.2	Aerial imagery, cadastre, topography, test pits
Map 1.3	Hill shading, cadastre, topography, test pits
Map 1.4	Published geology, cadastre, topography, test pits

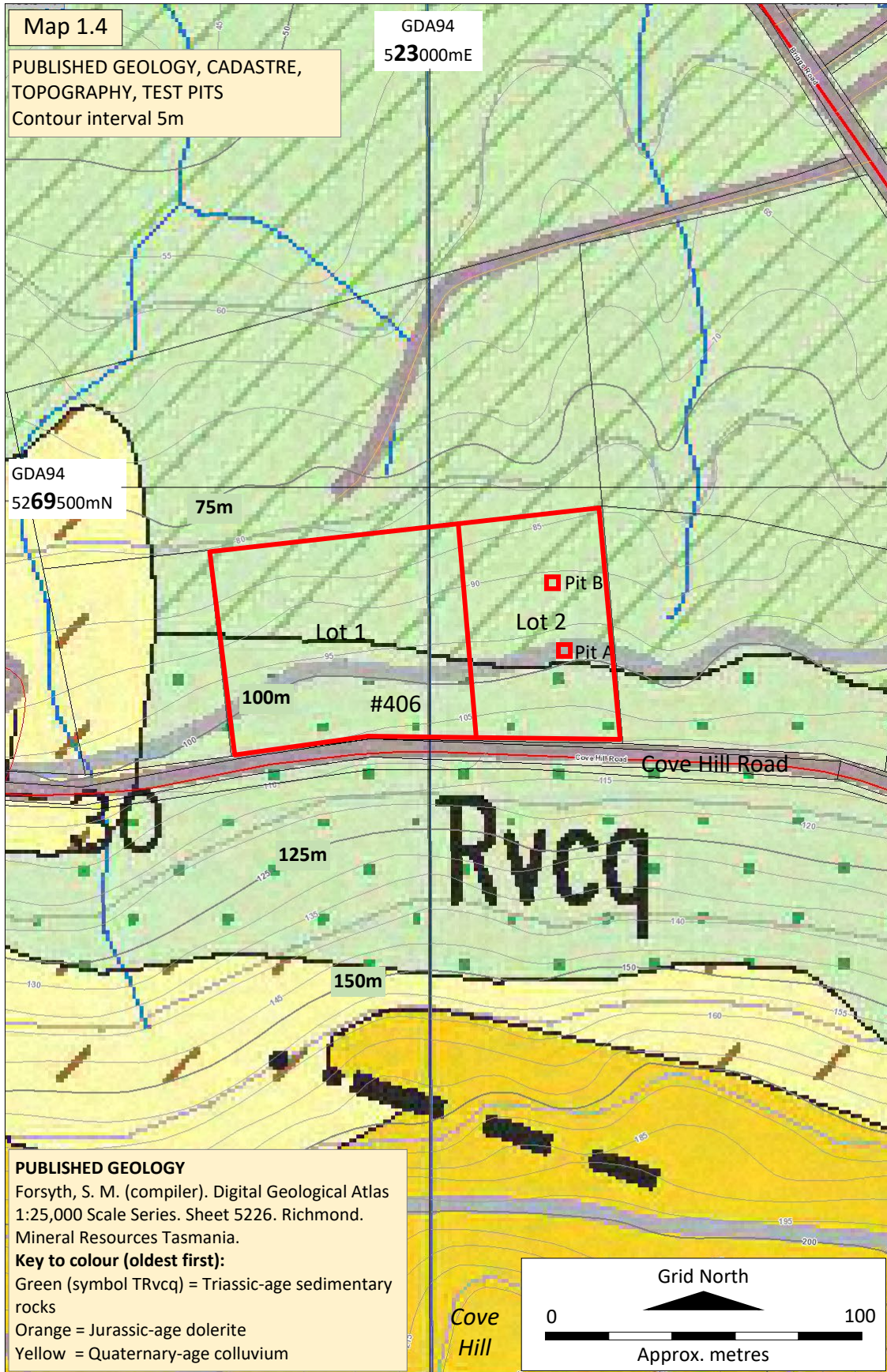
Source: www.thelsit.tas.gov.au













Attachment 2

(6 pages including this page)

Site and test pit photographs (1 September 2023)

The scale in some of these photographs is divided into red- and black-numbered segments each one metre long. The numbers are decimetres.





Plates 1 (above) and 2 (below). Views downslope and north-northeast and north respectively across proposed Lot 2. The excavator is at test pit A. The average slope from camera to the lower property boundary is 12°.





Plates 3 (above). View cross-slope to the west from near test pit A on proposed Lot 2.

Plate 4 (below). View on proposed Lot 2 upslope to the south from near the lower property boundary. The excavator is digging test pit B.





Plates 5 (above). View diagonally upslope on proposed Lot 2 to the southwest, from near the lower northeastern property corner. The excavator is digging test pit B.

Plate 6 (below). View cross-slope on proposed Lot 2, to the west along and close to the lower northern property boundary. The existing house on Lot 1 is left of centre.







Submission to Planning Authority Notice

Council Planning Permit No.	SA 2023 / 00017	Council notice date	17/07/2023
TasWater details			
TasWater Reference No.	TWDA 2023/00927-BTN	Date of response	24/07/2023
TasWater Contact	Shaun Verdouw	Phone No.	0467 901 425
Response issued to			
Council name	BRIGHTON COUNCIL		
Contact details	development@brighton.tas.gov.au		
Development details			
Address	406 COVE HILL RD, HONEYWOOD	Property ID (PID)	9832555
Description of development	Subdivision 2 lots		
Schedule of drawings/documents			
Prepared by	Drawing/document No.	Revision No.	Date of Issue
Lark & Creese	50943-01	-	29/05/2023
Conditions			
<p>Pursuant to the <i>Water and Sewerage Industry Act 2008 (TAS)</i> Section 56P(1) TasWater imposes the following conditions on the permit for this application:</p> <p>CONNECTIONS, METERING & BACKFLOW</p> <ol style="list-style-type: none"> A suitably sized water supply with metered connection to each lot of the development must be designed and constructed to TasWater's satisfaction and be in accordance with any other conditions in this permit. <i>NOTE: Please show a water connection being installed as per TasWater standards & Supplements, next to the new driveway for Lot 2. Location services will need to be employed to find the existing DN63 main and this will need to be shown before sign off for a water supply can be provided.</i> Any removal/supply and installation of water meters and/or the removal of redundant and/or installation of new and modified property service connections must be carried out by TasWater at the developer's cost. Prior to commencing construction of the subdivision/use of the development, any water connection utilised for construction/the development must have a backflow prevention device and water meter installed, to the satisfaction of TasWater. <p>FINAL PLANS, EASEMENTS & ENDORSEMENTS</p> <ol style="list-style-type: none"> Prior to the Sealing of the Final Plan of Survey, a Consent to Register a Legal Document must be obtained from TasWater as evidence of compliance with these conditions when application for sealing is made. <i>Advice: Council will refer the Final Plan of Survey to TasWater requesting Consent to Register a Legal Document be issued directly to them on behalf of the applicant.</i> The Plan of Subdivision Council Endorsement Page is to note, pursuant to Section 83 of the Local Government (Building and Miscellaneous Provisions) Act 1993, that TasWater cannot provide a sewerage service to all lots on the plan. <p>LAND STABILITY</p> <ol style="list-style-type: none"> All geotechnical recommendations made in the geotechnical report must be implemented by the 			

developer in relation to the design, alignment, installation and construction of all water and sewerage services.

DEVELOPMENT ASSESSMENT FEES

7. The applicant or landowner as the case may be, must pay a development assessment fee of \$234.64 and a Consent to Register a Legal Document fee of \$248.30 to TasWater, as approved by the Economic Regulator and the fees will be indexed, until the date paid to TasWater.

The payment is required within 30 days of the issue of an invoice by TasWater.

Advice

General

For information on TasWater development standards, please visit <https://www.taswater.com.au/building-and-development/technical-standards>

For application forms please visit <https://www.taswater.com.au/building-and-development/development-application-form>

Service Locations

Please note that the developer is responsible for arranging to locate the existing TasWater infrastructure and clearly showing it on the drawings. Existing TasWater infrastructure may be located by a surveyor and/or a private contractor engaged at the developers cost to locate the infrastructure.

- (a) A permit is required to work within TasWater's easements or in the vicinity of its infrastructure. Further information can be obtained from TasWater.
- (b) TasWater has listed a number of service providers who can provide asset detection and location services should you require it. Visit <https://www.taswater.com.au/building-and-development/service-locations> for a list of companies.
- (c) Sewer drainage plans or Inspection Openings (IO) for residential properties are available from your local council.

NOTE: In accordance with the WATER AND SEWERAGE INDUSTRY ACT 2008 - SECT 56ZB A regulated entity may charge a person for the reasonable cost of –

- (a) a meter; and
- (b) installing a meter.

Advice to Planning Authority (Council) and developer on fire coverage

TasWater cannot provide a supply of water for the purposes of firefighting to the lots on the plan.

Declaration

The drawings/documents and conditions stated above constitute TasWater's Submission to Planning Authority Notice.

TasWater Contact Details

Phone	13 6992	Email	development@taswater.com.au
Mail	GPO Box 1393 Hobart TAS 7001	Web	www.taswater.com.au