Application for Planning Approval

Land Use Planning and Approvals Act 1993

APPLICATION NO.

SA2024/024

LOCATION OF AFFECTED AREA

20 JORDAN DOWNS DRIVE, BRIGHTON

DESCRIPTION OF DEVELOPMENT PROPOSAL

SUBDIVISION (1 LOT PLUS BALANCE)

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 IN ACCORDANCE WITH S.57(5) OF THE LAND USE PLANNING AND APPROVALS ACT 1993 CONCERNING THIS APPLICATION UNTIL 4:45 P.M. ON **16/07/2025**. ADDRESSED TO THE CHIEF EXECUTIVE OFFICER 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
Chief Executive Officer

SCAN ME

Brighton
going places

ROGERSON & BIRCH SURVEYORS

UNIT 1, 2 KENNEDY DRIVE
CAMBRIDGE 7170
PHONE: (03)6248 5898
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This plan has been prepared only for the purpose of obtaining preliminary subdivsional approval from the local authority and is subject to that approval.

All measurements and areas are subject to the final survey.

Brighton
11.0 Rural Living
11.5 Development Standards for Subdivision

BRI-S8.8.1 Lot Design
A1
(a)- Lot 1 complies - Min. 5000m²
(b)- Lot 1 complies - comply with the lot design standards required by Rural Living Zone - clause 11.5.1 Lot design A1, excluding lot area specified in Table 11.1.

P1- Lot 2 complies
(a)- The relevant requirements for development of existing buildings on the lots;
(b)- The intended location of buildings on the lots;
(c)- The topography of the site;
(d)- Any natural or landscape values;
(e)- Adequate provision of private open space; and
(f)- The pattern of development existing on established properties in the area,
(g)- and must be not less than 5,000m².

11.5.1 Lot Design
P2- All lots comply - Min. 3.6m frontage

A3- All lots comply - vehicular access directly from road

11.5.2 Roads
A1- All lots comply - no new roads

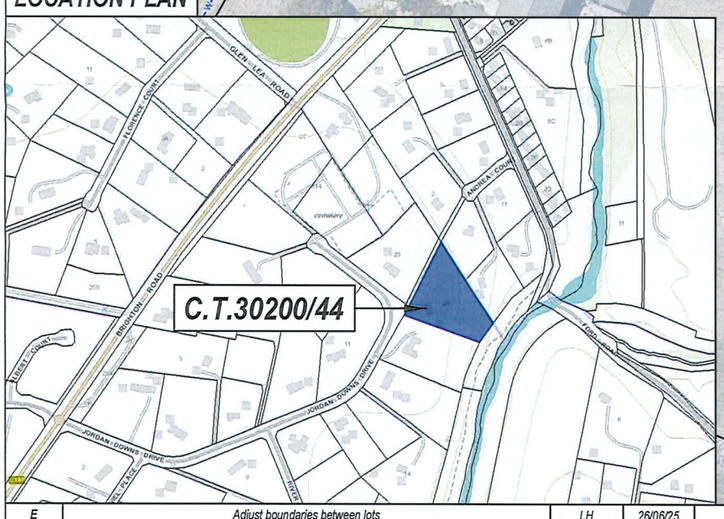
BRI-S8.8.2 Services
A1- All lots comply - TasWater Water supply services to be provided

Overlay Legend:

Bushfire-prone Area:	*Entire Site*
Priority vegetation area:	*Entire Site*
Flood-Prone Area:	
Low landslip hazard band:	
Waterway and coastal protection area:	

15m x 20m Compliance Area
Min. Compliance Setbacks
Lot 1
5,009m²
Lot 2
5,007m²
Existing Vegetation to be removed for access to Lot 1
Existing Water Main
Existing Water Meter
Proposed Access
Existing Access
Proposed Water Meter
Proposed Right of Way 6.00 Wide
Proposed Right of Way Variable width
Proposed Waste-water System
Existing House
Existing Sewer Pressurised Main per the LIST (Unk)
Existing 100mm Sewer Pressurised Main per Detail Survey
Proposed Pipeline & Services Easment 4.00m Wide
JORDAN DOWNS DRIVE

LOCATION PLAN



REV	AMENDMENTS	DRAWN	DATE	APPR.
E	Adjust boundaries between lots	LH	26/06/25	LH
D	Adjust boundaries between lots	LH	27/05/25	LH
C	Add proposed right of way	LH	25/02/25	LH
B	Widen proposed Pipeline & Services easement per engineering plans	LH	22/01/25	LH
A	Add detail survey information to proposal	LH	07/10/24	LH

OWNER: *PAUL W. HILLS, MELANIE D. HILLS, JEREMY P. HILLS & EMILY A. HILLS*
TITLE REFERENCE: *C.T.30200/44*
LOCATION: *20 JORDAN DOWNS DRIVE,* ***BRIGHTON***

Proposed Subdivision

Date: *25/03/2024*	***Reference:*** ***HILLJ01*** *15413-01*
Scale: *1:750 (A3)*	***Municipality:*** *BRIGHTON*

11/03/2025

Brighton Council
Attention : Jo Blackwell

Dear Jo,

SA 2024/00024 20 JORDAN DOWNS WAY – 1 LOT SUBDIVISION
RFI RESPONSE

It is proposed to have a gravel driveway to the internal lot in keeping with the Rural Living zoning. There is a grassed swale drain on the high (west side) intercepting runoff of the adjacent walkway and the driveway itself and conveying it northwards into the property where it will join the house drainage. Soils comprise sand approximately 400mm deep overlaying weathered sandstone so runoff is minimal.

Addressing C2.6.1 Construction of parking areas:

Acceptable solution A1 is not met as the zoning is Rural Living therefore Performance Criteria P1 applies:

All parking, access ways, manoeuvring and circulation spaces must be readily identifiable and constructed so that they are useable in all weather conditions, having regard to:

(a) ◗ *the nature of the use;*

(b) ◗ *the topography of the land;*

(c) ◗ *the drainage system available;*

(d) ◗ *the likelihood of transporting sediment or debris from the site onto a road or public place;*

(e) ◗ *the likelihood of generating dust; and*

(f) ◗ *the nature of the proposed surfacing*

The site is suitable for a gravel driveway as it is flat (1-2%) and in a dry area. The gravel driveway will therefore be durable and experience little erosion and need negligible maintenance. Speeds are low so no dust will be created.

The driveway drains into a grassed swale drain that filters any sediment before it joins the property drainage.

Other longer driveways in the area are similar gravel. The future owner has the option of resurfacing it following their house construction when there is not a risk of damage from trucks should they wish.

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77 BANKSIA ROAD, MOUNTAIN RIVER, TAS 7109 M 0448 440 346
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Yours Faithfully

Poortenaar Consulting Pty Ltd

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enviro-dynamics
environmental solutions for a changing world

Natural Values Report

20 Jordan Downs Drive, Brighton

Client: JP Hills

Prepared by: Nick Fitzgerald

December 2024 (v1.0)

Contents

1 Introduction

This natural values report has been prepared as a requirement of a development application for a subdivision under the Tasmanian Planning Scheme – Brighton. The property at 20 Jordan Downs Drive is zoned Rural Living Zone A. The entire property is mapped as a Bushfire Prone Area and Priority Vegetation.

Enviro-dynamics has been contracted to undertake this natural values assessment on behalf of the proponents. The assessment identifies the natural values of the site including the type and extent of vegetation communities, presence of threatened species and threatened fauna habitat. It also maps weeds and identifies any other threats present. Any potential impacts to natural values posed by the proposed subdivision are then analysed against the requirements of the relevant legislation and the Natural Assets Code of the planning scheme.

2 Background

2.1 Study area description

The study area comprises a 1 hectare property at 20 Jordan Downs Drive, Brighton (Figure 1) (Title reference 30200/44). The property is located at the eastern edge of the flat basalt plains of Brighton, bordered on the eastern side by the steeply incised valley of the Jordan River.

The site comprises moderately inclined slopes with northeasterly and easterly aspects, except for the elevated and flat south-western corner and a steep embankment at the eastern edge of the property. Elevation ranges from 30 m above sea level on the eastern boundary to 53 m in the southwest. The geology is Cenozoic basalt. Soils on the flatter western part of the property are sandy.

An existing dwelling and outbuildings are located in the southwest corner of the property, with access from Jordan Downs Drive at the southwest corner of the property. The surrounding land is rural residential apart from on the eastern boundary, which borders a Crown Reserve along the Jordan River.

Under the Tasmanian Planning Scheme, the entire property is zoned Rural Living and is mapped as a Bushfire Prone Area and Priority Vegetation Area (which includes a Waterway and Coastal Protection Area at the eastern edge of the property). A Landslip Hazard overlay applies to the eastern half of the property.

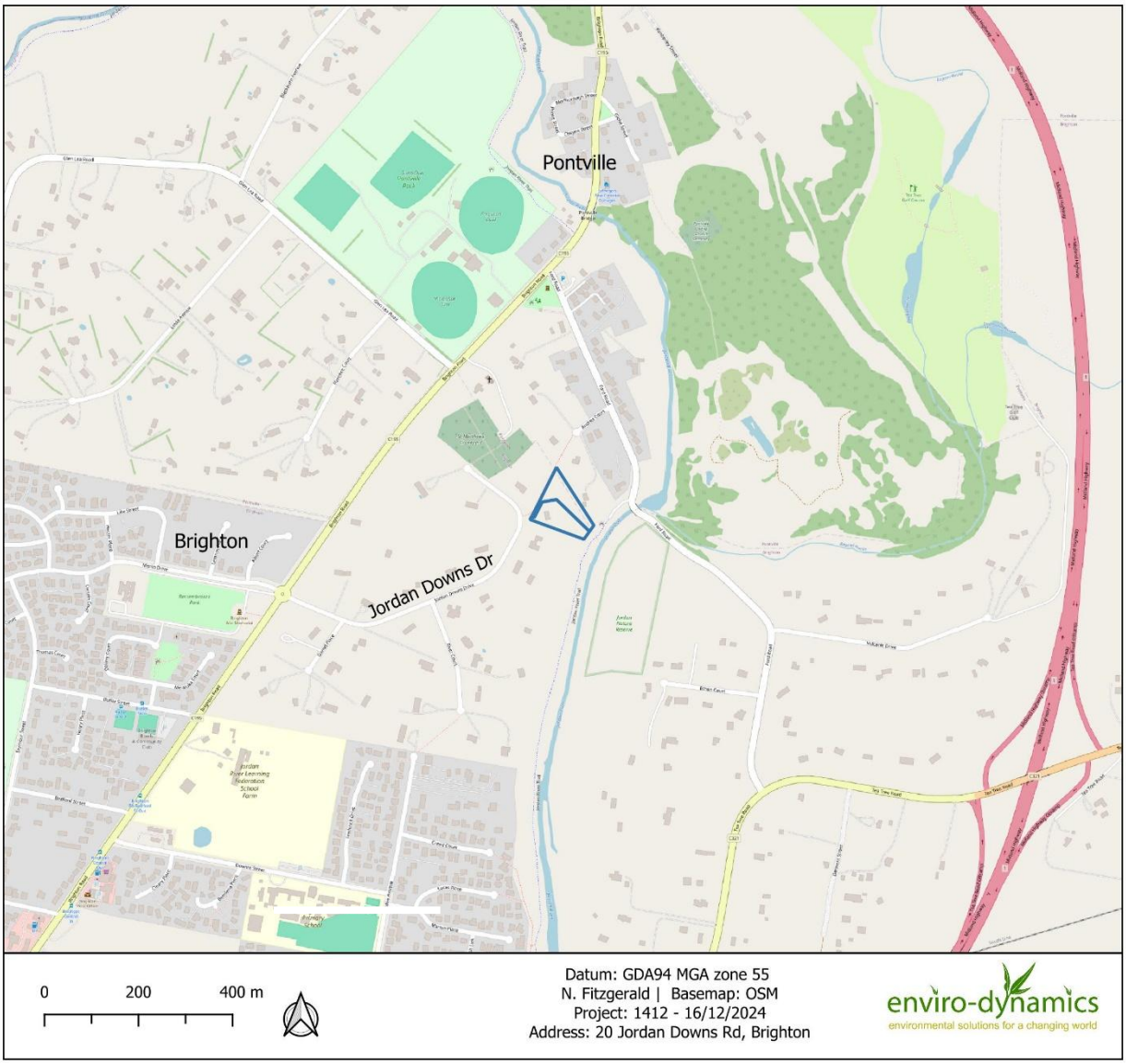

Figure 1: Location of property (blue outline) at 20 Jordan Downs Drive, Brighton.

2.2 **Subdivision proposal**

The proposed subdivision will divide the 1 ha lot into two 0.5 ha (5000 m^2) lots (Figure 2). The existing dwelling will be on Lot 2. Lot 1, comprising the northern half of the property, will be a residential lot with access via the existing vehicular access to Jordan Downs Drive. Residential development on Lot 1 will be limited to a compliance area in the central north of the lot, which is determined by setback distances in accordance with a bushfire management plan.

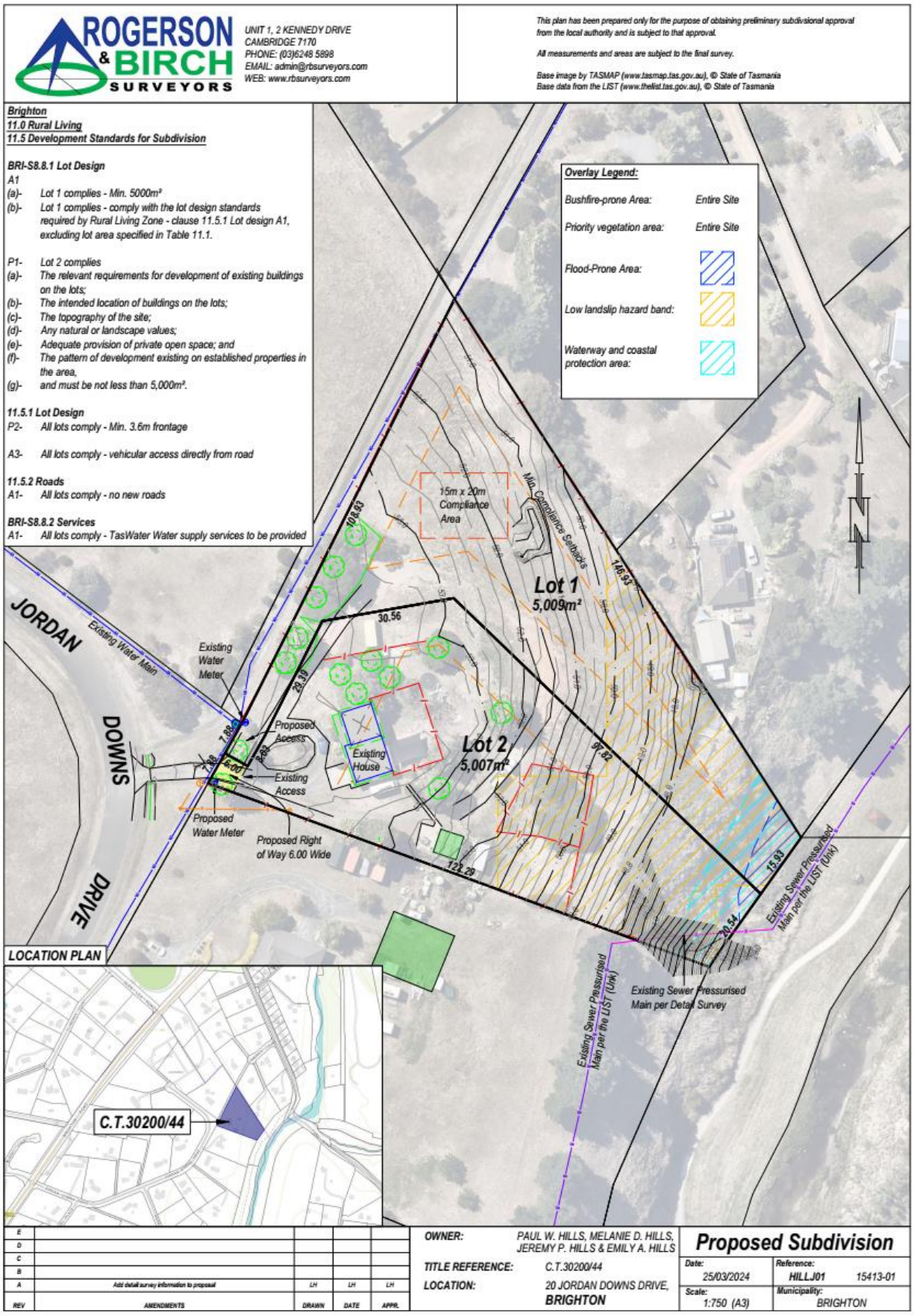

Figure 2: Proposed subdivision, Rogerson & Birch 25/03/2024.

3 Methods

The natural values assessment was undertaken in two stages including a desktop analysis and a field survey.

3.1 Desktop analysis

The desktop analysis involved extracting data from sources (accessed November 2024) including:

- Natural Values Atlas report
- Protected Matters Search Tool
- LISTmap

3.2 Field survey

A field survey was undertaken on 15th November 2024. Vegetation communities on the property were assessed and classified according to TASVEG 4.0. All vascular plant species encountered were recorded.

Fauna surveys included an assessment of potential threatened fauna habitat e.g., tree hollows and den sites, and other evidence e.g. scats, diggings, and tracks. No targeted surveys for specific threatened fauna were undertaken.

Locations of threatened species and significant weeds were mapped with a smartphone GPS app. Geographic datum used was GDA94 Zone 55.

Taxonomic nomenclature for flora follows the latest Census of Vascular Plants of Tasmania (de Salas & Baker 2024). Classification of vegetation communities is in accordance with Kitchener and Harris (2013) and TASVEG 4.0.

3.3 Limitations of the survey

Some plants could not be identified to a species level due to a lack of fertile material and others may have been overlooked due to seasonal growth cycles. It is likely that additional species are present but were dormant at the time of survey (e.g. annuals, ephemerals).

4 Natural Values Assessment

This section outlines the findings of the desktop analysis and field survey, including a description of the vegetation communities, threatened flora, fauna habitat values, and weeds.

4.1 Vegetation communities

Three vegetation communities occur in the survey area, as per the TASVEG 4.0 classification system:

- Agricultural (FAG)
- Weed infestation (FWU)
- Urban (FUR)

No native vegetation communities are present. No communities listed as threatened under the *Nature Conservation Act 2005* or the *Environment Protection and Biodiversity Protection Act 1999* are present.

Vegetation communities are mapped in Figure 3.

Agricultural land (FAG)

The majority of the site is open pasture dominated by exotic grasses and pasture weeds. This is equivalent to rough pasture used for grazing stock, which was likely the historical use of this land. Grassy areas are currently maintained by mowing (Photo 1). Several exotic trees and shrubs are present around the margins, including cypresses and mainland eucalypt and wattle species (Photo 2). Native flora species are infrequent, such as occasional plants of dwarf riceflower (*Pimelea humilis*) and dwarf mat-rush (*Lomandra nana*).

Weed infestation (FWU)

Dense thickets of perennial woody weeds, blackberry (*Rubus fruticosus*) and gorse (*Ulex europaeus*), occupy around 1400 m^2 on the steep rocky bank in the east of the site (Photos 3 and 4). Other weeds, such as cotoneaster and stinking iris, are infrequent. Native species are limited to a few plants on rocky outcrops, including prickly box (*Bursaria spinosa*) and austral storks bill (*Pelargonium australe*).

Urban (FUR)

This mapping unit includes houses and associated buildings and gardens. Native flora species are unlikely to be present. Vegetation is primarily lawns and planting of trees and shrubs.

Figure 3: Vegetation communities and proposed subdivision

Photo 1: Proposed dwelling location on Lot 1 in dry paddock (FAG), looking northwest.

Photo 2: View northward from entrance to Lot 1. Pasture with row of planted trees along property boundary on left hand side. Bushfire plan compliance area (dwelling location) on RHS.

Photo 3:Top of weedy bank (FWU) with blackberry, gorse, iris and exotic grasses.

Photo 4: Weedy bank (FWU) viewed from eastern boundary.

4.2 Flora

A total of 14 native plant species and 36 introduced species were recorded (Appendix 1).

4.2.1 Threatened flora

A search of the Natural Values Atlas indicates that numerous threatened flora species have been recorded from within 5 km of the site (Appendix 2). This includes 14 vascular plant species and 3 lichen species recorded within 500 m of the property.

Most threatened flora species require relatively intact native vegetation. Almost all the threatened species recorded within 5 km are native grassland species occurring in remnant grasslands, such as the nearby Jordan Nature Reserve, or aquatic and wetland plants growing in the Jordan River. No records in recent decades are from sites similar to the property surveyed.

However, a limited number of threatened flora species can occur in modified landscapes such as the periphery of FAG and rocky outcrops in FWU on the property. These include lemon beautyheads (*Calocephalus citreus*), soft peppercress (*Lepidium hyssopifolium*) and grassland flaxlily (*Dianella amoena*).

The survey was undertaken at a suitable time of year for detecting grassland flora and the small site allowed a thorough survey of potential (albeit marginal) threatened flora habitat. No threatened flora species were observed and the likelihood of any being present and undetected is low due to the marginal habitat suitability and appropriate survey timing.

4.2.2 Weeds

A wide variety of environmental weeds and pasture weeds occur on the site, with extensive infestations of some species. Six weed species listed as declared pests under the *Biosecurity Act 2019* (Table 1, **Error! Reference source not found.**4, Photo 5). Gorse and blackberry are well established on the property and are listed as Zone B (containment) under the Act. Several juvenile broom plants near the northern boundary are either white spanish broom (*Cytisus multiflorus*) or English broom (*C. scoparius*), with no flowering plants present to confirm which species. Both broom species are declared weeds, however *C. multiflorus* is rare in Tasmania and is listed as Zone A (eradication) in all Tasmanian municipalities.

Control of weeds on the bank in the east of the property will be challenging due to the large scale of the weed infestation and the very steep terrain (Photo 4).

Table 1: Environmental and declared weeds present on site, with Weeds of National Significance (WoNs) status.

Species	**Comment**	**Declared pest (Biosecurity Act 2019)**	**WoNs**
African boxthorn *Lycium ferocissimum*	Two plants observed on site.	Yes - Zone B	Yes
blackberry *Rubus fruticosus*	Extensive dense patches of blackberry occur on steep bank in east of property.	Yes - Zone B	Yes
briar rose *Rosa rubiginosa*	One plant on steep slope in east of property.		
capeweed *Arctotheca calendula*	Frequent in grassy vegetation in northwest of property.		
gorse *Ulex europaeus*	Common in east of site, co-occuring with blackberry.	Yes - Zone B	Yes
hawthorn *Crataegus monogyna*	One plant on steep slope in east of property.		
large-leafed cotoneaster *Cotoneaster glaucophyllus*	One plant on steep slope in east of property.		
hoary cress *Lepidium draba*	Small patch of plants on pile of dumped soil in grassy area in northwest of property.	Yes - Zone B	
slender thistle *Carduus tenuiflorus*	Few plants at a single location in west of property.	Yes - Zone B	
stinking iris *Iris foetidissima*	One plant on steep slope in east of property.		
tufted gazania *Gazania linearis*	Few plants in grassy vegetation near northern boundary.		
variegated thistle *Silybum marianum*	Few plants at a single location in west of property.		
white spanish broom *Cytisus multiflorus* (possibly *C. scoparius*)	Few plants near northern boundary, possibly invading from neighbouring property.	Yes - Zone A (*C. scoparius* - Zone B)	

Figure 4: Declared weeds recorded on site. See Table 1 for details.

Photo 5: Hoary cress (right hand side foreground) and African boxthorn (centre) in FAG on Lot 1.

4.3 Fauna

4.3.1 Threatened fauna

Nine threatened fauna species have been recorded within 5 km of the property (Table 2).

Habitat for threatened fauna is limited due to the lack of native vegetation. Some wide-ranging threatened species, such as wedge-tailed eagle, will forage in modified environments and may visit the site at times. Suitable habitat is present for eastern barred bandicoot, with grassy gardens and paddocks being foraging habitat and weedy thickets providing shelter. There is no significant habitat, such as potential breeding sites, on the property for any threatened species apart from eastern barred bandicoots.

No raptor nests are known to occur within 1000 m of the property.

Table 2: Threatened fauna species recorded on the NVA within 5 km of the survey site (EPBC Act) CR = Critically Endangered, EN = Endangered, VU = Vulnerable (TSP Act) e = endangered, v = vulnerable, r= rare

Species	Status TSP Act / EPBC Act	Comment
Aquila audax subsp. *fleayi* wedge-tailed eagle	e / EN	Nests in a range of old growth native forests and is dependent on forest for nesting. Territories can contain up to five alternate nests usually close to each other. This eagle preys and scavenges in a wide variety of habitats. **No suitable nesting habitat within or near the survey area. Species likely to forage over site.**
Dasyurus maculatus subsp. *maculatus* spotted-tailed quoll	r / VU	Habitat for the spotted-tailed quoll is coastal scrub, riparian areas, rainforest, wet forest, damp forest, dry forest, and blackwood swamp forest (mature and regrowth), particularly where structurally complex areas are present, and includes remnant patches in cleared agricultural and or plantation areas. **May forage across the site. No denning habitat such as large fallen logs or caves.**
Haliaeetus leucogaster white-bellied sea eagle	v /	Nests in large trees near waterbodies. This eagle hunts mostly along rivers, lakes and coastal areas. **No suitable nesting habitat within or near the survey area. Species may forage over site.**
Hirundapus caudacutus white-throated needletail	/ VU	High-flying bird migrates to Australia during the non-breeding season, where it spends most of the time in the air and rarely lands. **No suitable habitat present.**
Lathamus discolor swift parrot	e / CE	During the breeding season, nectar from Tasmanian blue gum (*Eucalyptus globulus*) and black gum (*Eucalyptus ovata*) flowers are the primary food source for the species. These eucalypts are patchily distributed, and their flowering patterns are erratic and unpredictable, often leading to only a small proportion of swift parrot habitat being available for breeding in any one year. Swift parrots breed in tree hollows in mature eucalypts within foraging range of a flower source. **No suitable foraging or nesting habitat present.**
Perameles gunnii eastern barred bandicoot	- / VU	Habitat includes open woodlands with grassy understory, open grasslands, urban areas and paddocks. Reliant on grassy areas for feeding and dense groundcover vegetation for shelter. **Potential habitat in grassy and weedy areas on property.**
Pseudemoia pagenstecheri tussock skink	v /	Habitat includes open woodlands with grassy understory and native grasslands. Reliant on dense groundcover such as grass tussocks for shelter. **No potential habitat in survey area.**

Species	Status TSP Act / EPBC Act	Comment
Sarcophilus harrisii tasmanian devil	e / EN	This species lives in a wide range of habitats across Tasmania, especially in landscapes with a mosaic of pasture and woodland. Prefers caves, rock outcrops or large fallen logs in sunny locations for denning. **Foraging habitat across the site. No apparent denning habitat such as large fallen logs or caves.**
Tyto novaehollandiae castanops tasmanian masked owl	e / V	This species occupies a range of habitats which contain some mature forest, usually below 600 m altitude - these include native forests and woodlands as well as agricultural areas with a mosaic of native vegetation and pasture. **Species may forage across property. No suitable nesting habitat present.**

5 Potential Impacts and Legislative Requirements

The following section outlines the potential impacts of the proposed subdivision on natural values and provides an assessment of the proposal against relevant Commonwealth and State legislation. An outline of potential permitting requirements and offset options is also provided where impacts cannot be avoided.

No impacts on native vegetation will occur due to the absence of native vegetation on the property.

The footprint of the proposed dwelling, driveway and outbuildings is approximately 450 m^2. The extent of the bushfire hazard management area (HMA) is unknown but is likely to be under 0.5 hectares. Removal of the majority of understorey vegetation and some canopy trees will be necessary within the HMA. Wastewater treatment areas will impact native vegetation within the HMA footprint.

Impacts on natural values

- Threatened vegetation communities
    - No threatened communities present.
- Threatened flora
    - No threatened flora species known to occur on the property.
    - The likelihood of threatened flora species being present and undetected is low.
- Threatened fauna
    - No threatened fauna species known to occur on the property.
    - No critical habitat for threatened fauna present.
- Pest species
    - There are six declared weed species recorded on the property. Subdivision and subsequent building works have the potential to introduce or spread weeds on the site. Any works involving soil disturbance are likely to promote the growth of weeds. There is also a risk of spreading weeds from the property.

5.1 *Environment Protection and Biodiversity Conservation Act 1999*

Development proposals that have the potential to impact on Matters of National Environmental Significance, including threatened species listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), may require Commonwealth approval. Potential impacts need to be assessed against the EPBC Act significant impact guidelines 1.1 (EPBC Act 1999).

No species listed under the EPBC Act have been recorded on the site. No notable habitat for fauna species listed under the EPBC Act occurs within the study area.

No threatened ecological communities or other Matters of National Environmental Significance are present.

No action is required under the EPBC Act.

5.2 *Threatened Species Protection Act 1995*

In Tasmania, threatened species (flora and fauna) are protected under the Tasmanian *Threatened Species Protection Act 1995* (TSP Act). Under this Act, a permit is required to knowingly "take" (which includes kill, injure, catch, damage, destroy and collect) keep, trade in, or process any specimen of a listed species.

No threatened species are known from the site. No action is required under the TSP Act.

5.3 *Nature Conservation Act 2002 / Forest Practices Act 1985*

No vegetation communities listed under Schedule 3A of the Nature Conservation Act (NCA) are present. No burrows or dens or other wildlife protected under the NCA were recorded during the surveys.

5.4 *Biosecurity Act 2019*

Six declared pests (weeds) are recorded on the site. Under the Act there is a duty of care to manage biosecurity risks, including declared weeds. Declared weeds will need to be managed in accordance with the relevant Statutory Weed Management Plans following the best practice prescriptions as outlined in the *Weed and Disease Planning and Hygiene Guidelines* (DPIPWE 2015).

5.5 Tasmanian Planning Scheme – Brighton

The site is within the Brighton municipality and as such works will be subject to the Tasmanian Planning Scheme - Brighton Local Provisions.

The property is zoned Rural Living and is subject to the Natural Assets Code (C7.0) due to the Priority Vegetation Area overlay.

Subdivision within the Priority Vegetation Area must address the Natural Assets Code (C7.7.2). The proposal does not meet the Acceptable Solutions (A1) under the *C7.6 Development Standards for Buildings and Works* and therefore must address the Performance Criteria as detailed below.

P1.1
Each lot, or a lot proposed in a plan of subdivision, within a priority vegetation area must be for:

(a) subdivision for an existing use on the site, provided any clearance is contained within the minimum area necessary to be cleared to provide adequate bushfire protection, as recommended by the Tasmania Fire Service or an accredited person;

Response: N/A.

(b) subdivision for the construction of a single dwelling or an associated outbuilding;

Response: The proposed subdivision is for a single dwelling on a second lot.

(c) subdivision in the General Residential Zone or Low Density Residential Zone;

Response: N/A.

(d) use or development that will result in significant long term social and economic benefits and there is no feasible alternative location or design;

Response: N/A.

(e) subdivision involving clearance of native vegetation where it is demonstrated that ongoing pre-existing management cannot ensure the survival of the priority vegetation and there is little potential for long-term persistence; or

Response: No clearing or impacts on native vegetation due to lack of native vegetation.

(f) subdivision involving clearance of native vegetation that is of limited scale relative to the extent of priority vegetation on the site.

Response: No clearing or impacts on native vegetation due to lack of native vegetation.

P1.2
Works association with subdivision within a priority vegetation area must minimise adverse impacts on priority vegetation, having regard to:

(a) the design and location of any works, future development likely to be facilitated by the subdivision, and any constraints such as topography or land hazards;;

Response: No impacts on priority vegetation due to lack of native vegetation.

(b) any particular requirements for the works and future development likely to be facilitated by the subdivision;

Response: None noted.

(c) the need to minimise impacts resulting from bushfire hazard management measures through siting and fire-resistant design of any future habitable buildings;

Response: No impacts on priority vegetation due to lack of native vegetation.

(d) any mitigation measures implemented to minimise the residual impacts on priority vegetation;

Response: No impacts on priority vegetation due to lack of native vegetation.

(e) any on-site biodiversity offsets; and

Response: No offsets proposed.

(f) any existing cleared areas on the site.

Response: Entire site has been cleared of native vegetation historically, so all development is utilising existing cleared areas.

6 Conclusion and recommendations

This report outlines the natural values of the property at 20 Jordan Downs Drive, Brighton. A desktop analysis and field survey assessed the potential impacts of a proposed 2-lot subdivision.

Threatened species

No species listed under the Tasmanian *Threatened Species Protection Act 1995* or Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* have been observed on the site.

Threatened vegetation

No threatened communities listed under the Tasmanian *Threatened Species Protection Act 1995* or Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* are present.

Weeds

Several environmental and agricultural weeds are present, including six declared weeds under the *Biosecurity Act 2019*. The eastern end of the property is dominated by extensive patches of dense gorse and blackberry.

Development impacts

The entire property is mapped as a Priority Vegetation Area, however no native vegetation or significant fauna habitat is present. Consequently, the subdivision and subsequent residential development will not impact native vegetation or other natural values.

General Recommendations

- Implement weed control and hygiene measures during construction and works on site to prevent spread of weeds. Refer to *Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania* (DPIPWE 2015b).
- Ensure any material brought to the site is weed and disease free.

References

Biosecurity Act 2019.
Available at https://www.legislation.tas.gov.au/view/html/inforce/current/act-2019-022

Commonwealth of Australia 1999. *Environment Protection and Biodiversity Conservation Act 1999. No. 91, 1999.*

Department of the Environment 2013. *Matters of National Environmental Significance: Significant impact guidelines 1.1*. Commonwealth of Australia, Canberra.

de Salas, M.F. & Baker, M.L. 2024. *A Census of the Vascular Plants of Tasmania, Including Macquarie Island.* (Tasmanian Herbarium, Tasmanian Museum and Art Gallery. Hobart)

DPIPWE 2015a. *Guidelines for Natural Values Survey – Terrestrial Development Proposals. Version 1.0. 16th April 2015*. Policy and Conservation Advice Branch. Department of Primary Industries, Parks, Water and Environment, Hobart.

DPIPWE 2015b. *Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania.* (Eds.) Karen Stewart and Michael Askey-Doran. Department of Primary Industries, Parks, Water and Environment, Hobart, Tasmania.

TASVEG 4.0*,* Released July 2020. Tasmanian Vegetation Monitoring and Mapping Program, Natural and Cultural Heritage Division.

Harris, S and Kitchener, A. 2005*, From Forest to Fjaeldmark: Descriptions of Tasmania's Vegetation,* DPIW, Hobart.

NRE *Threatened Species Note Sheets, Listing Statements and Recovery Plans*
Available at https://www.threatenedspecieslink.tas.gov.au/

Nature Conservation Act 2002.
Available at https://www.legislation.tas.gov.au/view/html/inforce/current/act-2002-063

Threatened Species Protection Act 1995.
Available at https://www.legislation.tas.gov.au/view/html/inforce/current/act-1995-083

Appendix 1 – Vascular Plants Species List

Recorder: Nick Fitzgerald **Date:** 15 November 2024

Dicotyledons

ASTERACEAE				
Arctotheca calendula	capeweed		i	
Carduus tenuiflorus	slender thistle		i	d
Gazania linearis	tufted gazania		i	
Hypochaeris radicata	rough catsear		i	
Silybum marianum	variegated thistle		i	
Sonchus oleraceus	common sowthistle		i	
BRASSICACEAE				
Lepidium africanum	common peppercress	i		
Lepidium draba	hoary cress		i	d
CARYOPHYLLACEAE				
Paronychia brasiliana	nailwort		i	
CRASSULACEAE				
Crassula tetramera	wiry stonecrop			
DILLENIACEAE				
Hibbertia hirsuta	hairy guineaflower			
FABACEAE				
Acacia dealbata subsp. dealbata	silver wattle			
Acacia sp.		i		
Cytisus multiflorus	white spanish broom		i	d
Robinia pseudoacacia	black locust		i	
Trifolium angustifolium	narrowleaf clover		i	
Trifolium repens	white clover		i	
Trifolium subterraneum	subterranean clover		i	
Ulex europaeus	gorse		i	d
FUMARIACEAE				
Fumaria sp.			i	
GERANIACEAE				
Erodium sp.			i	

Pelargonium australe	austral storks bill		
MYRTACEAE			
Eucalyptus sp.		i	
PITTOSPORACEAE			
Bursaria spinosa subsp. spinosa	prickly box		
POLYGONACEAE			
Acetosella vulgaris	sheep sorrel	i	
ROSACEAE			
Acaena echinata	spiny sheepsburr		
Cotoneaster glaucophyllus	large-leafed cotoneaster	i	
Crataegus monogyna	hawthorn	i	
Prunus sp.		i	
Rosa rubiginosa	sweet briar	i	
Rubus fruticosus	blackberry	i	d
Sanguisorba minor	salad burnet	i	
SOLANACEAE			
Lycium ferocissimum	african boxthorn	i	d
THYMELAEACEAE			
Pimelea humilis	dwarf riceflower		
Gymnosperms			
CUPRESSACEAE			
Cupressus sp.	cypress	i	
Monocotyledons			
ASPARAGACEAE			
Lomandra nana	dwarf mat-rush		
CYPERACEAE			
Ficinia nodosa	knobby clubsedge		
Lepidosperma curtisiae	little swordsedge		
IRIDACEAE			
Iris foetidissima	stinking iris	i	

JUNCACEAE		
Juncus subsecundus	finger rush	
POACEAE		
Austrostipa flavescens	yellow speargrass	
Austrostipa scabra	speargrass	
Bromus catharticus	prairie grass	i
Bromus diandrus	great brome	i
Dactylis glomerata	cocksfoot	i
Lolium perenne	perennial ryegrass	i
Phalaris sp.		i
Rytidosperma sp.	wallaby grass	
Secale cereale	rye	i
Vulpia sp.		i

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end = Tasmanian endemic i = introduced

d = declared weed ~ *(Weed Management Act 1999)*

CR = Critically Endangered, EN = Endangered, VU = Vulnerable ~ *(Environment Protection and Biodiversity Conservation Act 1999)*

e = endangered v = vulnerable r= rare ~ *(Tasmanian Threatened Species Protection Act 1995)*

Appendix 2 – Natural Values Atlas records

Verified threatened flora records within 500 m and 5 km of the project area; SS = Tasmanian *Threatened Species Protection Act 1995*, NS = Commonwealth *Environment Protection and Biodiversity Conservation Act 1999.*

Threatened flora within 500 metres

Verified Records

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
Carex gunniana	mountain sedge	r		n	1	01-Nov-1984
Cryptandra amara	pretty pearlflower	e		n	20	16-Sep-2020
Desmodium varians	slender ticktrefoil	e		n	4	09-Jan-2016
Dianella amoena	grassland flaxlily	r	EN	n	149	24-Oct-2017
Goodenia paradoxa	spur velleia	v		n	1	01-Jan-1995
Hibbertia basaltica	basalt guineaflower	e	EN	e	43	20-Oct-2011
Isoetopsis graminifolia	grass cushion	v		n	22	20-Oct-2011
Pterostylis ziegeleri	grassland greenhood	v	VU	e	7	19-Sep-2008
Pultenaea prostrata	silky bushpea	v		n	19	20-Oct-2017
Scleranthus diander	tufted knawel	v		n	2	09-Nov-2021
Triptilodiscus pygmaeus	dwarf sunray	v		n	2	29-Oct-2016
Vallisneria australis	river ribbons	r		n	1	16-Mar-2001
Vittadinia gracilis	woolly new-holland-daisy	r		n	7	09-Jan-2016
Vittadinia muelleri	narrowleaf new-holland-daisy	r		n	7	21-Feb-2010
Vittadinia muelleri (broad sense)	narrow leaf new holland daisy	p		n	4	05-Apr-2004
Xanthoparmelia amphixantha		e		n	6	28-Mar-2004
Xanthoparmelia molliuscula		e		n	4	28-Mar-2004
Xanthoparmelia vicariella		r		e	2	28-Mar-2004

Threatened flora within 5000 metres

Verified Records

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
Asperula scoparia subsp. scoparia	prickly woodruff	r		n	4	19-Sep-2016
Austrostipa bigeniculata	doublejointed speargrass	r		n	169	11-Feb-2022
Austrostipa blackii	crested speargrass	r		n	6	12-Jan-2022
Brachyscome rigidula	cutleaf daisy	v		n	1	15-Nov-1998
Calocephalus citreus	lemon beautyheads	r		n	168	10-Feb-2022
Calocephalus lacteus	milky beautyheads	r		n	7	01-Dec-1992
Carex gunniana	mountain sedge	r		n	1	01-Nov-1984
Colobanthus curtisiae	grassland cupflower	r	VU	n	1	01-Jan-1877
Coronidium gunnianum	swamp everlasting	e		n	2	01-Jan-1900
Cryptandra amara	pretty pearlflower	e		n	28	09-Dec-2021
Desmodium varians	slender ticktrefoil	e		n	4	09-Jan-2016
Dianella amoena	grassland flaxlily	r	EN	n	762	14-Nov-2023
Discaria pubescens	spiky anchorplant	e		n	1	01-Jan-1880
Eryngium ovinum	blue devil	v		n	44	09-Dec-2021
Eucalyptus risdonii	risdon peppermint	r		e	3	12-Dec-2012
Glycine latrobeana	clover glycine	v	VU	n	14	17-Dec-2008
Goodenia paradoxa	spur velleia	v		n	5	01-Jan-1999
Gratiola pubescens	hairy brooklime	r		n	1	01-Feb-1892
Haloragis heterophylla	variable raspwort	r		n	35	23-Nov-2021
Hibbertia basaltica	basalt guineaflower	e	EN	e	195	12-Jan-2022
Isoetopsis graminifolia	grass cushion	v		n	154	13-Jan-2022
Lepidium hyssopifolium	soft peppercress	e	EN	n	1	31-Jan-1974
Levenhookia dubia	hairy stylewort	x		n	2	01-Jan-1880
Pellaea calidirupium	hotrock fern	r		n	21	12-Jan-2022
Pterostylis wapstrarum	fleshy greenhood	e	CR	e	6	01-Nov-2009
Pterostylis ziegeleri	grassland greenhood	v	VU	e	38	04-Nov-2016
Pultenaea prostrata	silky bushpea	v		n	47	08-Dec-2021
Rumex bidens	mud dock	v		n	2	01-Jan-1875
Schoenoplectus tabernaemontani	river clubsedge	r		n	1	16-Jun-2019
Scleranthus diander	tufted knawel	v		n	2	09-Nov-2021
Scleranthus fasciculatus	spreading knawel	v		n	8	01-May-2024
Senecio squarrosus	leafy fireweed	r		n	16	02-Dec-2021
Stackhousia subterranea	grassland candles	e		n	7	02-Nov-2021
Teucrium corymbosum	forest germander	r		n	3	18-Jan-1930
Triptilodiscus pygmaeus	dwarf sunray	v		n	63	09-Nov-2021
Vallisneria australis	river ribbons	r		n	19	16-Mar-2001
Vittadinia burbidgeae	smooth new-holland-daisy	r		e	7	04-Nov-2021
Vittadinia cuneata var. cuneata	fuzzy new-holland-daisy	r		n	18	02-Jun-2012
Vittadinia gracilis	woolly new-holland-daisy	r		n	51	19-Sep-2016
Vittadinia muelleri	narrowleaf new-holland-daisy	r		n	345	01-Feb-2022
Vittadinia muelleri (broad sense)	narrow leaf new holland daisy	p		n	47	28-Mar-2007
Xanthoparmelia amphixantha		e		n	50	01-Apr-2014
Xanthoparmelia mannumensis		v		n	3	01-Apr-2009
Xanthoparmelia molliuscula		e		n	11	01-Apr-2009
Xanthoparmelia vicariella		r		e	16	02-Dec-2021

Verified threatened fauna records within 500 m and 5 km of the project area; SS = Tasmanian *Threatened Species Protection Act 1995*, NS = Commonwealth *Environment Protection and Biodiversity Conservation Act 1999.*

Threatened fauna within 500 metres

Verified Records

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
Perameles gunnii	eastern barred bandicoot		VU	n	2	15-Oct-2011
Pseudemoia pagenstecheri	tussock skink	v		n	1	01-Dec-2009
Sarcophilus harrisii	tasmanian devil	e	EN	e	1	20-Jan-2021

Threatened fauna within 5000 metres

Verified Records

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
Aquila audax	wedge-tailed eagle	pe	PEN	n	23	12-Jun-2023
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	e	EN	e	6	25-Mar-2024
Dasyurus maculatus	spotted-tailed quoll	r	VU	n	1	06-Dec-2022
Dasyurus maculatus subsp. maculatus	spotted-tailed quoll	r	VU	n	1	16-Feb-2024
Haliaeetus leucogaster	white-bellied sea-eagle	v		n	2	24-Jun-2023
Hirundapus caudacutus	white-throated needletail		VU	n	1	01-Jan-1900
Lathamus discolor	swift parrot	e	CR	mbe	6	04-Jan-2015
Perameles gunnii	eastern barred bandicoot		VU	n	39	17-Jun-2024
Pseudemoia pagenstecheri	tussock skink	v		n	5	01-Dec-2009
Sarcophilus harrisii	tasmanian devil	e	EN	e	15	04-Feb-2024
Tyto novaehollandiae	masked owl	pe	PVU	n	2	13-Feb-2019

BUSHFIRE ASSESSMENT REPORT

Proposed Two Lot Subdivision

Address: 20 Jordan Downs Drive, Brighton TAS 7030

Title Reference: C.T.30200/44

Prepared by James Rogerson (of *JR Bushfire Assessments*), Bushfire Hazard Practitioner (BFP-161)
VERSION – 1.0
Date: 21/06/2024

Contents

Disclaimer: The information contained within this report is based on the instructions of AS 3959-2018 the standard states that *"Although this Standard is designed to improve the performance of building when subjected to bushfire attach in a designated bushfire-prone area there can be no guarantee that a building will survive a bushfire event of every occasion. This is substantially due to the degree of vegetation management, the unpredictable nature and behaviour of fire and extreme weather conditions." (Standards Australia Limited, 2011)*

INTRODUCTION

1.1 Background

This Bushfire Assessment Report and associated Bushfire Hazard Management Plan (BHMP) has been prepared by James Rogerson of JR Bushfire Assessments (for Rogerson and Birch Surveyors) on behalf of the proponent to form part of supporting documentation for the proposed two lot subdivision of 20 Jordan Downs Drive, Brighton. Under the Tasmanian Planning Scheme – Brighton (TPS) and C13.0 Bushfire-Prone Areas Code it is a requirement that a subdivision application within a bushfire-prone area must accomplish a minimum Bushfire Attack Level (BAL) rating of BAL-19 for all future dwellings on newly formed allotments. This report also includes an associated BHMP which is also a requirement under C13.0.

The proposed development is within a Bushfire-Prone Area overlay and there is bushfire-prone vegetation within 100m from the site. Therefore, this site is within a bushfire-prone area.

1.2 Scope

This Bushfire Report offers an investigation and assessment of the bushfire risk to establish the level of bushfire threat and vulnerability on the land for the purpose of subdivision. This report includes the following:

- A description of the land and adjacent land, and description of the use or development that may be at threat by a bushfire on the subject site;
- Calculates the level of a bushfire threat and offers opinions for bushfire mitigation measures that are consistent with AS3959:2018 and C13.0.
- Subdivision Proposal Plan (Appendix B)
- Bushfire Hazard Management Plan (Appendix C)
- Planning Certificate (Appendix D)

1.3 Scope of BFP Accreditation

I, James Rogerson am an accredited Bushfire Practitioner (BFP-161) to assess bushfire hazards and endorse BHMP's under the the *Chief Officers Scheme for the Accreditation of Bushfire Hazard Practitioners.* I have successfully completed the *Planning for Bushfire Prone Areas Short Course* at University of Technology Sydney.

1.4 Limitations

The site assessment has been conducted and report written on the understanding that:

- The report only deals with the potential bushfire risk, all other statutory assessments are outside the scope of this report;
- The report only classifies the size, volume and status of the vegetation at the time the site assessment was conducted;
- Impacts on future development and vegetation growth have not been considered in this report. No action or reliance is to be placed on this report, other than which it was commissioned.

1.5 Proposal

The proposal is for the subdivision of the current title C.T.30200/44 into 2 resultant titles. See proposal plan (Appendix B).

2 PRE-FIELD ASSESSMENT

2.1 Site Details

Table 1

Owner Name(s)	Paul W, Melanie D, Jermey P & Emily A. Hills
Location	20 Jordan Downs Drive, Brighton TAS 7030
Title Reference	C.T.30200/44
Property ID	7380675
Municipality	Brighton
Zoning	11 – Rual Living Zone A
Planning Overlays	7 – Natural Assets Code, 12 – Flood-prone Hazard Areas Code, 15 – Landslip Hazard Code & 13 – Bushfire-prone Areas Code
Water Supply for Firefighting	The property is serviced by reticulated water. A hydrant exists adjacent to the existing property access.
Public Access	Access to the development is off Jordan Downs Drive.
Fire History	Record fires adjacent to the property from 2015-2016 and 2022-2023 seasons.
Existing Development	Existing Class 1a dwelling, various Class 10a sheds and an all-weather private driveway.

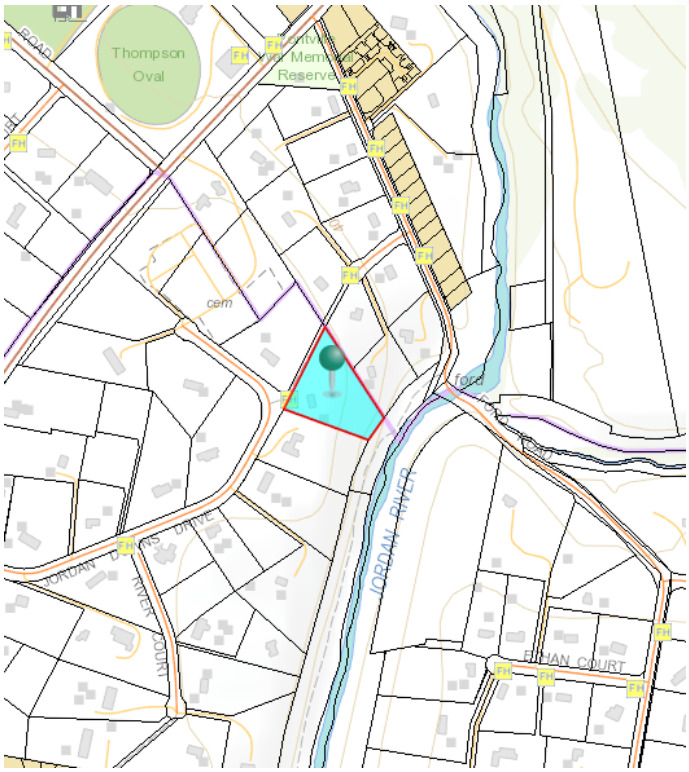


Figure 1 - Location of subject site and nearby hydrants. Source: The LIST, © State of Tasmania

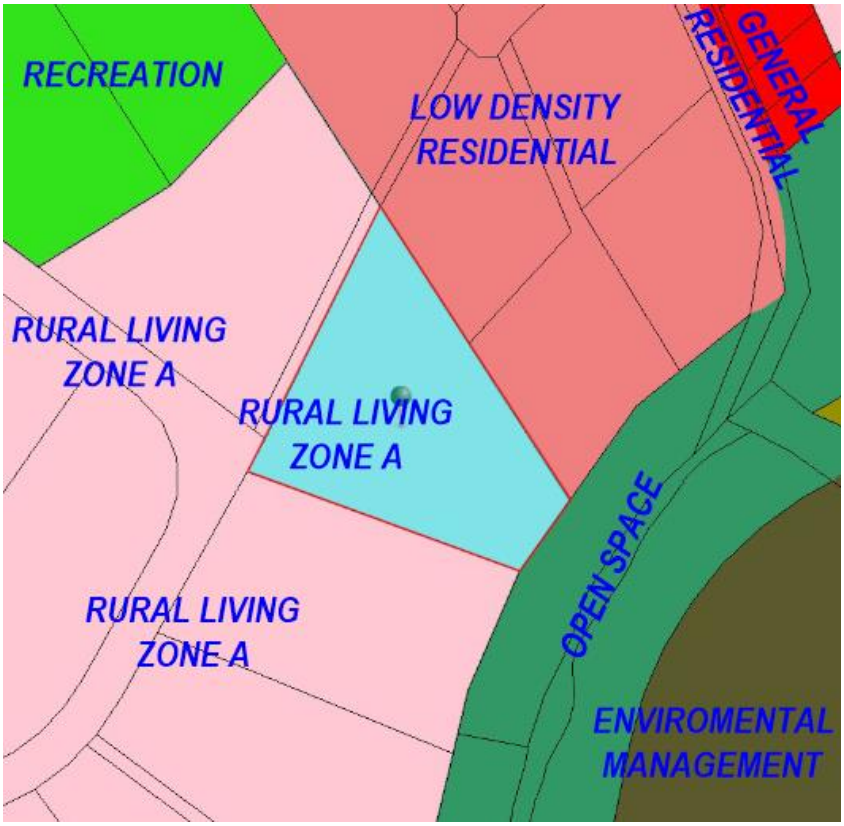


Figure 2 - Planning Scheme Zoning of site and surrounding properties. Source: The LIST, © State of Tasmania

2.2 TasVeg 4.0

There is 1 classified vegetation community on the subject site, and 2 additional community on the surrounding land and parcels. Figure 3 below shows the classified vegetation from TASVEG4.0(Source: The LIST).

Please note that TASVEG4.0 classification does not necessarily reflect ground conditions.

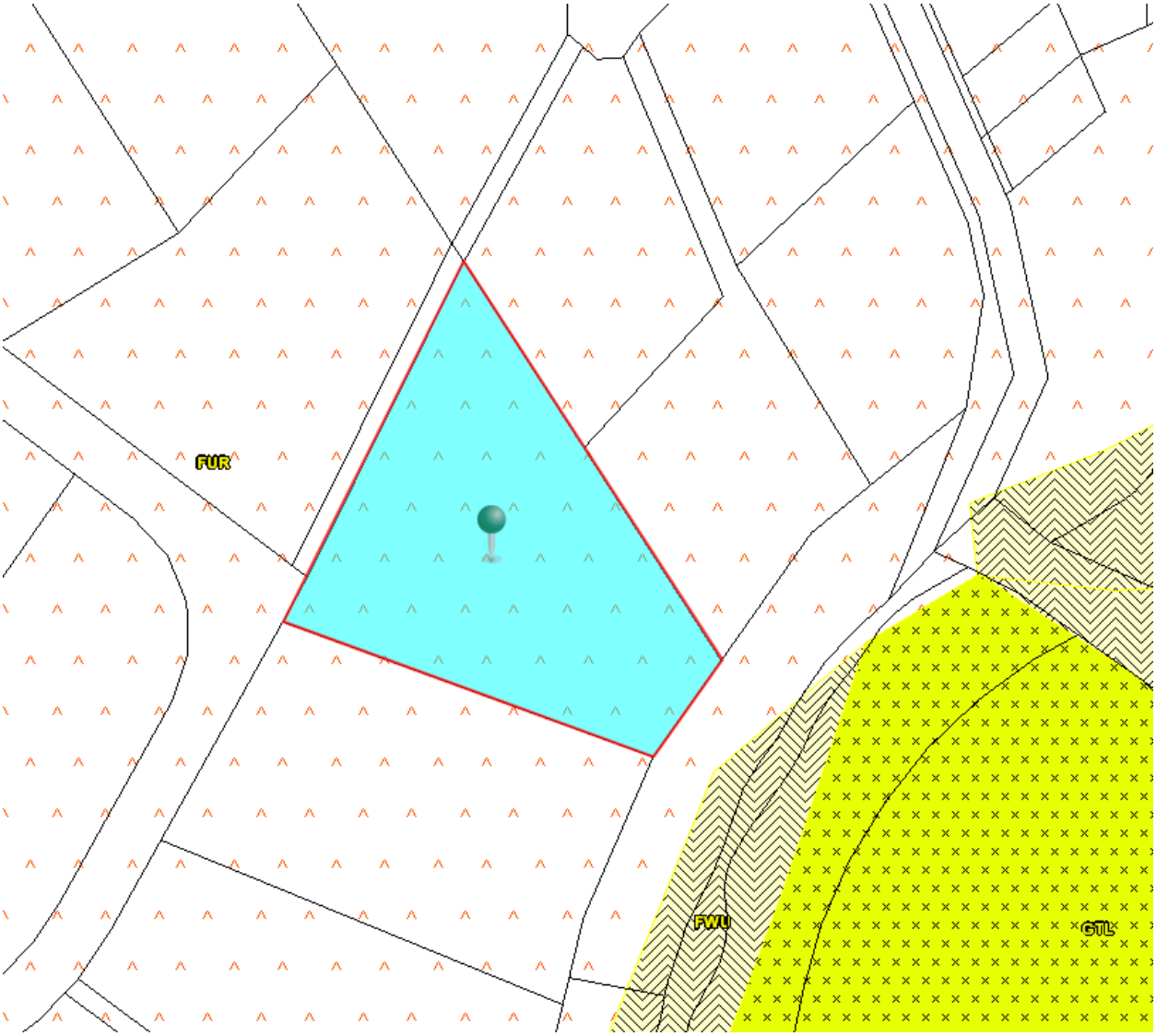


Figure 3 - TASVEG4.0 communities on subject site and surrounding land. FUR – Urban areas, FWU – Weed infestation, GTL – Lowland Themeda triandra grassland

3 SITE ASSESSMENT

The site assessment was conducted by James Rogerson (BFP-161) on the 21st of May 2024.

3.1 Bushfire Hazard Assessment

C13.0 Bushfire Prone Areas Code defines Bushfire-prone areas as follows;

> *a) Land that is within the boundary of a bushfire-prone area shown on an overlay on a planning scheme map; or*
>
> *b) Where there is no overlay on a planning scheme map, or where the land is outside the boundary of a bushfire-prone area shown on such map, land that is within 100m of an area of bushfire –prone vegetation equal or greater than 1ha.*

The subject site is within a bushfire-prone areas overlay for the TPS, and the subject site is within 100m of an area of bushfire-prone vegetation equal or greater than 1ha. Therefore, this proposed subdivision is within a bushfire-prone area as per the TPS.

For the purposes of the BAL Assessment, vegetation within 100m of the proposed subdivision site was assessed and classified in accordance with AS3959:2018 Simplified Procedure (Method 1) (relevant fire danger index: 50-which applies across Tasmania).

BUSHFIRE THREAT DIRECTION

The Bushfire threat to this development is from the **GRASSLAND FUEL** within and surrounding the property.

Prevailing Winds: The prevailing winds for this site are primarily westerly, north westerly.

3.2 Vegetation and Effective Slope

Vegetation and relevant effective slopes within 100m of the proposed subdivision have been inspected and classified in accordance with AS 3959:2018. Effective Slope refers to the slope of the land underneath the classified bushfire-prone vegetation relative to the building site and not the slope between the vegetation and the building site. The effective slope affects a fires rate of spread and flame length and is an acute aspect of bushfire behaviour.

WITHIN THE TITLE BOUNDARY (BDY) & PROPERTY DESCRIPTION

The property is a medium sized, developed, residential, Rural Living Zone A zoned property that is located at the northern border of the suburb Brighton. The property is on the border between Brighton and Pontville. The property is accessed via Jordan Downs Drive. The property is shaped like a rhombus and is oriented northeast-southwest and is located adjacent to the Jordan River on the west side. The property is surrounded by developed residential properties and the terrain within the property is gentle (excluding a cliff face), sloping slightly in a southeasterly aspect. The property consists of a Class 1a dwelling, in addition to various Class 10a sheds and an all-weather/bitumen private driveway. (See Figure 4 for slopes).

The land directly surrounding the dwelling and sheds is used as private open space (POS) and is therefore classed as MANAGED LAND or LOW THREAT VEGETATION per Clause 2.2.3.2 (e)(f) of AS3959:2018. Most of the remainder of the property is grassed, appearing managed, being mowed on a regular basis and backed up by viewing aerial images dating back 5 years and is therefore also classed as MANAGED LAND or LOW THREAT VEGETATION per Clause 2.2.3.2 (f) of AS3959:2018. At the rear of the property and down to the public open space land to the east on the riverbank the grass is unmanaged due to the terrain of the land and the cliff face and is therefore classed as GROUP G GRASSLAND per Table 2.3 of AS3959:2018.

Noting the cliff isn't considered in the BAL assessment as a fire run would be too short to gain any speed, a fire would run along the cliff in this instance. The slope of the unmanaged Grassland fuel above the cliff has been assessed and included.

NORTHEAST OF THE TITLE BDY

To the north of the property (across slope, downslope >0°-5° & downslope >5°-10°) are various medium sized, developed, residential, Low Density Residential zoned properties, that consist of Class 1a dwellings, in addition to Class 10a sheds, landscaped areas, cultivated gardens, low-cut lawns and all-weather/bitumen driveways. The land directly surrounding the dwellings and sheds is used as (POS) and is therefore classed as MANAGED LAND or LOW THREAT VEGETATION per Clause 2.2.3.2 (e)(f) of AS3959:2018. The remainder of the properties is also managed land as the land is well maintained in low fuel condition within all these properties (except for the rear of No. 4 Andrea Ct) and is therefore classed as MANAGED LAND or LOW THREAT VEGETATION per Clause 2.2.3.2 (f) of AS3959:2018.

The rear of 4 Andrea Court is the same as of the subject site around the cliff face the grass here is unmanaged due to the terrain and is therefore classed as GROUP G GRASSLAND per Table 2.3 of AS3959:2018.

SOUTHEAST OF THE TITLE BDY

To the southeast of the property (downslope >15°-20°, across slope & upslope) is land that is owned by the Crown and Brighton Council. The land borders each side of the Jordan River. The land on the western side of the river that is owned by the Crown is a public concreted walking path and carparking area and mowed grass and is therefore classed as MANAGED LAND or LOW THREAT VEGETATION per Clause 2.2.3.2 (e)(f) of AS3959:2018. Up the bank and cliff from the walking path is grass, appearing unmanaged due to the terrain of the area and is therefore classed as GROUP G GRASSLAND per Table 2.3 of AS3959:2018.

On the eastern side of the river, there is a strip of Eucalyptus trees that are <10m high, with a foliage cover of <30% and an understory of long grass and is therefore classed as GROUP B WOODLAND per Table 2.3 of AS3959:2018. The remainder of the land in this aspect is grass, appearing in an unmanaged condition and is therefore classed as GROUP G GRASSLAND per Table 2.3 of AS3959:2018.

SOUTHWEST OF THE TITLE BDY

To the southwest of the property (across slope) is various, medium sized, developed, residential, Rural Living Zone A properties that all consist of existing Class 1a dwellings, in addition to various Class 10a sheds, and cultivated gardens and low-cut lawns. The land directly surrounding the dwellings and sheds is used as POS and is therefore classed as MANAGED LAND or LOW THREAT VEGETATION per Clause 2.2.3.2 (e)(f) of AS3959:2018. The remainder of the properties is also managed land as the land is well maintained in low fuel condition within all these properties (except for the rear of all the properties) and is therefore classed as MANAGED LAND or LOW THREAT VEGETATION per Clause 2.2.3.2 (f) of AS3959:2018.

The rear of these properties is the same as of the subject site around the cliff face the grass here is unmanaged due to the terrain and is therefore classed as GROUP G GRASSLAND per Table 2.3 of AS3959:2018.

WEST AND NORTHWEST OF THE TITLE BDY

To the west and northwest of the property boundary (across slope) are various medium sized, developed, residential, Rural Living Zone A properties, that consist of Class 1a dwellings, in addition to various Class 10 sheds, cultivated gardens and non-combustible areas. Land directly surrounding the dwellings is used as POS and is therefore classed as MANAGED LAND or LOW THREAT VEGETATION per Clause 2.2.3.2 (e)(f) of AS3959:2018. On a few of these properties (see Figure 4) there is fenced off areas that are grassed, appearing in an unmanaged condition, due to minimal land use and is therefore classed as GROUP G GRASSLAND per Table 2.3 of AS3959:2018.

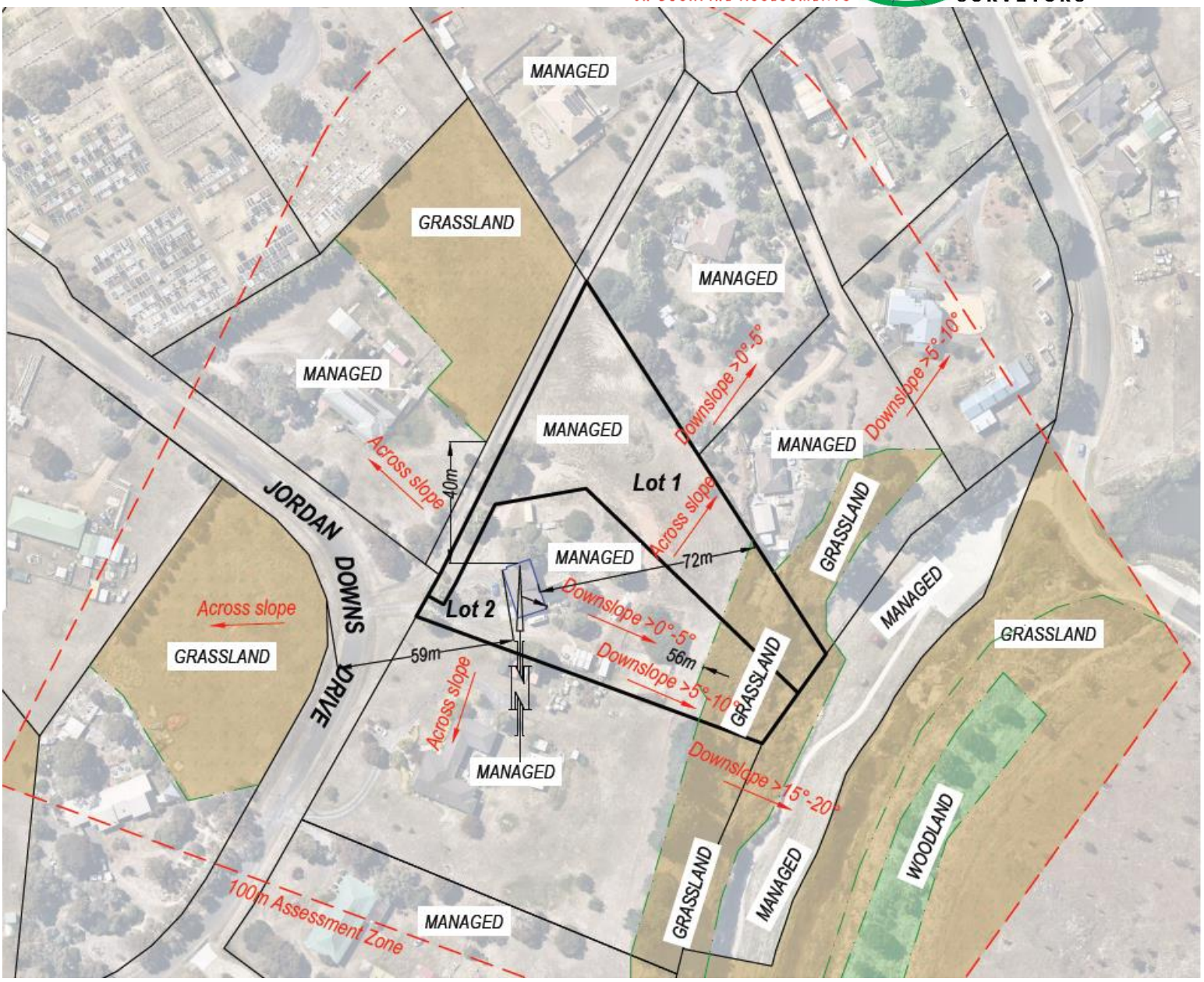


Figure 4 classified vegetation (within 100m of site) and existing separation from bushfire-prone vegetation (not to scale)

3.3 Bushfire Attack Level (BAL)

Table 2 - BAL rating for each lot and required separation distances

LOT 1 – VACANT (Indicative Building Area)				
DIRECTION OF SLOPE	**N**	**SE**	**SW**	**NW**
Vegetation Classification	MANAGED	MANAGED GRASSLAND	MANAGED	MANAGED GEASSLAND
Existing Horizontal distance to classified vegetation	N/A	50-97m (G)	N/A	10m-83m (G)
Effective Slope under vegetation	Downslope >0°5° & Downslope >5-10°	Downslope >0°-5°, Downslope >5°-10° Downslope >15°-20°	Across slope	Across slope
Exemption		(G) >50m		
Current BAL value for each side of the site	BAL-LOW	BAL-LOW	BAL-LOW	BAL-19
Separation distances to achieve BAL-19	N/A	N/A	N/A	10m
Separation distances to achieve BAL-12.5	N/A	N/A	N/A	14m
Current BAL rating	**BAL-19**			

LOT 2 – EXISTING DWELLING (existing separation)				
DIRECTION OF SLOPE	**NE**	**SE**	**SW**	**NW**
Vegetation Classification	MANAGED GRASSLAND	MANAGED GRASSLAND	MANAGED GRASSLAND	MANAGAED GRASSLAND
Existing Horizontal distance to classified vegetation	65m-100m (G)	56m-97m (G)	59m-100m (G)	40m-100m (G)
Effective Slope under vegetation	Downslope >0°-5° Downslope >5°-10°	Downslope >0°-5°, Downslope >5°-10° Downslope >15°-20°	Across slope	Across slope
Exemption	(G) >50m	(G) >50m	(G) >50m	
Current BAL value for each side of the site	BAL-LOW	BAL-LOW	BAL-LOW	BAL-12.5
Separation distances to achieve BAL-19	N/A	N/A	N/A	10m
Separation distances to achieve BAL-12.5	N/A	N/A	N/A	14m
Current BAL rating	**BAL-12.5**			

3.4 Definition of BAL-LOW

Bushfire Attack Level shall be classified BAL-LOW per Section 2.2.3.2 of AS3959:2018 where the vegetation is one or a combination of any of the following Exemptions:

a) Vegetation of any type that is more than 100m from the site.
b) Single areas of vegetation less than 1 hectare in area and not within 100m of other areas of vegetation being classified.
c) Multiple areas of vegetation less than 0.25 ha in area and not within 20m of the site, or each other.
d) Strips of vegetation less than 20m in width (measured perpendicular to the elevation exposed to the strip of vegetation) regardless of length and not within 20m of the site or each other, or other areas of vegetation being classified.
e) Non-vegetated areas, including waterways, roads, footpaths, buildings and rocky outcrops.
f) Low threat vegetation, including grassland managed in a minimal fuel condition, maintained lawns, golf courses, maintained public reserves and parklands, vineyards, orchards, cultivated gardens, commercial nurseries, nature strips and windbreaks.

NOTE: Minimal fuel condition means there is insufficient fuel available to significantly increase the severity of the bushfire attack (recognizable as short-cropped grass for example, to a nominal height of 100mm).

The BAL level will also be classified as BAL-LOW if Grassland fuel is >50m from the site for any effective slope per Table 2.6 of AS3959:2018.

Due to some existing developed and managed land, some separations distances are already achieved.

Where there were multiple fuel classifications and effective slopes, the predominant fuel and slope have been used in the BAL table above.

BAL ratings are as stated below:

BAL LOW	BAL 12.5	BAL 19	BAL 29	BAL 40	BAL FZ
There is insufficient risk to warrant any specific construction requirements, but there is still some risk	Ember attack and radiant heat below 12.5 kW/m²	Increasing ember attack and windborne debris, radiant heat between 12.5 kW/m² and 19 kW/m2	Increasing ember attack and windborne debris, radiant heat between 19kW/m² and 29 kW/m2	Increasing ember attack and windborne debris, radiant heat between 29 kW/m² and 40 kW/m². Exposure to flames from fire front likely	Direct Exposure to flames, radiant heat and embers from the fire front

4 BUSHFIRE PROTECTION MEASURES

4.1 Hazard Management Areas (HMA)

Hazard Management Area as described in the Code "*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".* Also as described from Note 1 of AS3959:2018 Clause 2.2.3.2 "*Minimal fuel condition means there is insufficient fuel available to significantly increase the severity of the bushfire attack (recognizable as short-cropped grass for example, to a nominal height of 100 mm)".*

Compliance to C13.6.1

The building areas within both lots require a Hazard Management Area (HMA) to be established and maintained between the bushfire vegetation and the area at a distance equal to, or greater than specified for the Bushfire Attack Level in Table 2.6 of AS3959:2018.

Due to the size of the lots, the majority of the lots should be maintained as a HMA.

The HMA for Lot 2 to be implemented prior to sealing of titles and prior to occupancy of future habitable dwellings for Lot 1.

Minimum separation distances for each lot are stated below.

LOT 1 – Separation Distances (Indicative Building Area)				
Aspect	**NE**	**SE**	**SW**	**NW**
BAL-19	N/A	N/A	N/A	10m
BAL-12.5	N/A	N/A	N/A	14m

LOT 2 – Separation Distances (Existing Dwelling)				
Aspect	**NE**	**SE**	**W**	**NW**
BAL-19	N/A	N/A	N/A	10m
BAL-12.5	N/A	N/A	N/A	14m

The Tasmanian Fire Service provides the following advice regarding the implementation and maintenance of Hazard management areas:

- Removing of fallen limbs, sticks, leaf and bark litter
- Maintaining grass at less than a 100mm height
- Removing pine bark and other flammable mulch (especially from against buildings)
- Thinning out understory vegetation to provide horizontal separation between fuels
- Pruning low-hanging tree branches (<2m from the ground) to provide vertical separation between fuel layers
- Pruning larger trees to maintain horizontal separation between canopies
- Minimize the storage of flammable materials such as firewood
- Maintaining vegetation clearance around vehicular access and water supply points
- Use of low-flammability species for landscaping purposes where appropriate
- Clearing out any accumulated leaf and other debris from roof gutters.

Additional site-specific fuel reduction or management may be required. An effective hazard management area does not require removal of all vegetation. Rather, vegetation must be designed and maintained in a way that limits opportunity for vertical and horizontal fire spread in the vicinity of the building being protected. Retaining some established trees can even be beneficial in terms of protecting the building from wind and ember attack

4.2 Public and Fire Fighting Access

Public Access

The proposed development fronts Jordan Downs Drive. Jordan Downs Drive is a public road, bitumen sealed and is maintained by the Council. Jordan Downs Drive has a nominal carriageway width of 8m.
No upgrades are required to the public road and the public road complies with public access road requirements.

Property Access

<u>Current Conditions:</u>

<u>Lot 2</u>

The existing private access to the dwelling within Lot 2 is of bitumen seal and all-weather gravel material. The access runs perpendicular off the road and then splits into a turning circle passing in front of the dwelling. The total length of the access (including the turning circle) is approximately 70m for a nominal width of 4m with a outer radius on the turning circle of 7m-10m. Additionally, there is other access and tacks the run off the main access.

Figure 5 – Existing access and turning circle within Lot 2

Compliance to C13.6.2

Lot 1 - Vacant

Access to the building area within Lot 1 will be <30m, but access is not required for a fire appliance, due a fire hydrant within 120m (hose lay) of the furthest part of the building area. Therefore, there are no design and construction, and the access will comply to Acceptable Solution A1 and C13.6.2.

Lot 2 – Existing Dwelling

Access to the existing dwelling within Lot 2 is >30m, but access is not required for a fire appliance, due a fire hydrant within 120m (hose lay) of the furthest part of the building area. Therefore, there are no design and construction, and the access will comply to Acceptable Solution A1 and C13.6.2.

4.3 Water Supply for Fire Fighting

Current Conditions:

Site assessment confirmed the property is serviced by reticulated water. A hydrant exists adjacent to the existing property access.

Figure 6 – Existing hydrant (existing dwelling in the background)

Compliance to C13.6.3

Lot 1

The building area within Lot 1 is within 120m (hose lay) of the above-mentioned hydrant and is therefore compliant with C13.6.3 A1 (b) and Table C13.4.

Lot 2

The existing dwelling within Lot 2 is within 120m (hose lay) of the above-mentioned hydrant and is therefore compliant with C13.6.3 A1 (b) and Table C13.4.

4.4 Construction Standards

Future habitable dwellings within the specified building areas on each lot must be designed and constructed to the minimum BAL ratings specified in the BHMP (Appendix C) and to BAL construction standards in accordance with AS3959:2018 or subsequent edition as applicable at the time of building approval.

Future Class 10a buildings within 6m of a Class 1a dwelling must be constructed to the same BAL as the dwelling or provide fire separation in accordance with Clause 3.2.3 of AS3959:2018

5 STATUTORY COMPLIANCE

The applicable bushfire requirements are specified in State Planning Provisions C13.0 – Bushfire-Prone Areas Code.

Clause	Compliance
C13.4 Use or development exempt from this code	N/A
C13.5 Use Standards	
C13.5.1 Vulnerable Uses	N/A
C13.5.2 Hazardous Uses	N/A
C13.6 Development Standards for Subdivision	
C13.6.1 Provision of Hazard Management Areas.	To comply with the Acceptable Solution A1, the proposed plan of subdivision must; • Show building areas for each lot; and • Show hazard management areas between these building areas and that of the bushfire vegetation with the separation distances required for BAL 19 in Table 2.6 of *Australian Standard AS 3959:2018 Construction of buildings in bushfire-prone areas.* The BHMP demonstrates that both lots can accommodate a minimum BAL rating of BAL-19. The HMA for Lot 2 to be implemented prior to sealing of titles and prior to occupancy of future habitable dwellings for Lot 1. Subject to the compliance with the BHMP the proposal will satisfy the Acceptable Solution C13.6.1(A1)
C13.6.2 Public and firefighting access; A1	The BHMP (through reference to section 4 of this report) specifies requirements for private accesses are consistent with Table C13.2. Existing access to the dwelling in Lot 2 and future access to Lot 1 will be >30m but accesses is not required for a fire appliance as there is a hydrant within the 120m hose lay limit. Therefore, there are no specified design or construction requirements. Subject to the compliance with the BHMP the proposal satisfies the Acceptable Solution C13.6.2(A1).
C13.6.3 A2 Provision of water supply for firefighting purposes.	The building areas within both lots are within 120m (hose lay) of a hydrant. Therefore, compliant with C.13.6.3. Subject to the compliance with the BHMP the proposal satisfies the Acceptable Solution C13.6.3

6 CONCLUSION & RECOMMENDATIONS

The proposed subdivision is endorsed that each lot can meet the requirements of Tasmanian Planning Scheme – Brighton and C13.0 Bushfire-prone Areas Code for a maximum BAL rating of BAL-19 for Lot 1 and BAL-19 or BAL-12.5 for Lot 2. Providing compliance with measures outlined in the BHMP (Appendix C) and sections 4 & 5 of this report.

Recommendations:

- The HMA's within the subdivision be applied in accordance with section 4.1 of this report and the BHMP (Appendix C).
- Brighton Council condition the planning approval on the compliance with the BHMP (as per Appendix C).
- Future development outside of the designated building areas will require further assessment.

7 REFERENCES

Department of Primary Industries and Water, The LIST, viewed June/July 2024, www.thelist.tas.gov.au

Standards Australia, 2018, *AS 3959:2018 – Construction of buildings in bushfire-prone areas*, Standards Australia, Sydney.

Tasmanian Planning Commission, 2015, *Tasmanian Planning Scheme – Brighton* viewed June/July 2024, www.iplan.tas.gov.au

Building Act 2016. The State of Tasmania Department of Premier and Cabinet. https://www.legislation.tas.gov.au/view/html/inforce/current/act-2016-025

Building Regulations 2016. The State of Tasmania Department of Premier and Cabinet. https://www.legislation.tas.gov.au/view/html/inforce/current/sr-2016-110

8 APPENDIX A – SITE PHOTOS

Figure 7 – Grassland fuel and cliff below within Lot 2, view facing NE

Figure 8 – Woodland and Grassland on the east side of the Jordan River, view facing SE from the same spot as Figure 7

Figure 9 – Managed grass within Lot 1, view facing NW from the edge of the managed grass at the northeast point in Lot 2

Figure 10 – Managed grass within Lot 1, view facing SW along the Council Footway from the northern corner of the property

Figure 11 – Existing house and managed land in Lot 2, view facing NE from the edge of the existing access

Figure 14 – GRASSLAND fuel to the SW of the existing dwelling, view facing SW from the edge of Jordan Downs Dr

9 APPENDIX B – SUBDIVISION PROPOSAL PLAN

ROGERSON & BIRCH SURVEYORS

UNIT 1, 2 KENNEDY DRIVE
CAMBRIDGE 7170
PHONE: (03)6248 5898
EMAIL: admin@rbsurveyors.com
WEB: www.rbsurveyors.com

Brighton
11.0 Rural Living
11.5 Development Standards for Subdivision

BRI-S8.8.1 Lot Design

A1

(a)- Lot 1 complies - Min. 5000m²

(b)- Lot 1 complies - comply with the lot design standards required by Rural Living Zone - clause 11.5.1 Lot design A1, excluding lot area specified in Table 11.1.

P1- Lot 2 complies

(a)- The relevant requirements for development of existing buildings on the lots;

(b)- The intended location of buildings on the lots;

(c)- The topography of the site;

(d)- Any natural or landscape values;

(e)- Adequate provision of private open space; and

(f)- The pattern of development existing on established properties in the area,

(g)- and must be not less than 5,000m².

11.5.1 Lot Design

P2- All lots comply - Min. 3.6m frontage

A3- All lots comply - vehicular access directly from road

11.5.2 Roads

A1- All lots comply - no new roads

BRI-S8.8.2 Services

A1- All lots comply - TasWater Water supply services to be provided

Overlay Legend:

Bushfire-prone Area:	*Entire Site*
Priority vegetation area:	*Entire Site*
Flood-Prone Area:	
Low landslip hazard band:	
Waterway and coastal protection area:	

Lot 1
5,009m²

Lot 2
5,007m²

15m x 20m Compliance Area

Min. Compliance Setbacks

Existing House

Existing Water Meter

Proposed Access

Existing Access

Proposed Water Meter

Proposed Right of Way 6.00 Wide

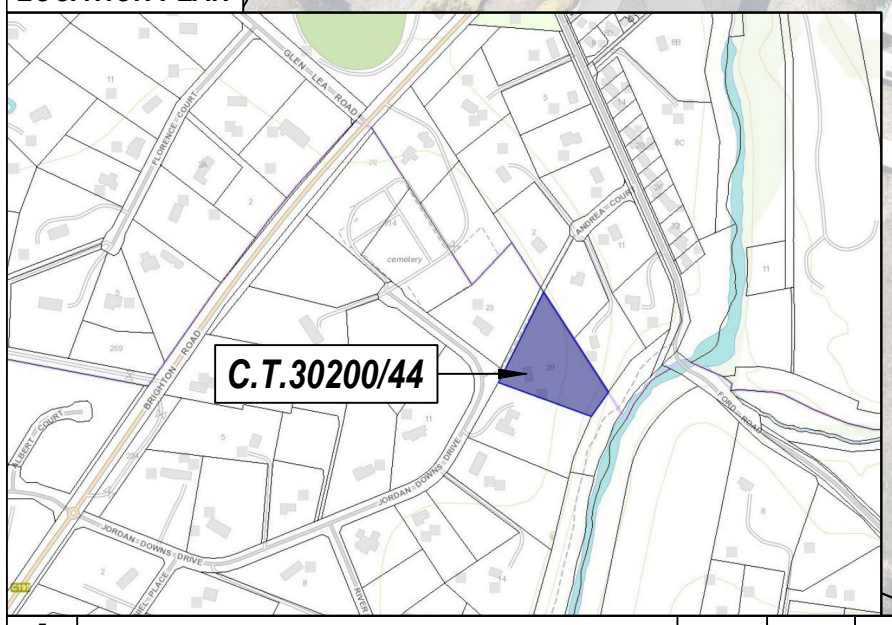
Existing Water Main

Existing Sewer Pressurised Main (Unk)

JORDAN DOWNS DRIVE

108.93
146.93
30.56
29.39
97.82
122.29
15.93
20.54
7.88
8.03
6.00
7.88

LOCATION PLAN



REV	AMENDMENTS	DRAWN	DATE	APPR.
E				
D				
C				
B				
A				

OWNER: *PAUL W. HILLS, MELANIE D. HILLS, JEREMY P. HILLS & EMILY A. HILLS*

TITLE REFERENCE: *C.T.30200/44*

LOCATION: *20 JORDAN DOWNS DRIVE,* ***BRIGHTON***

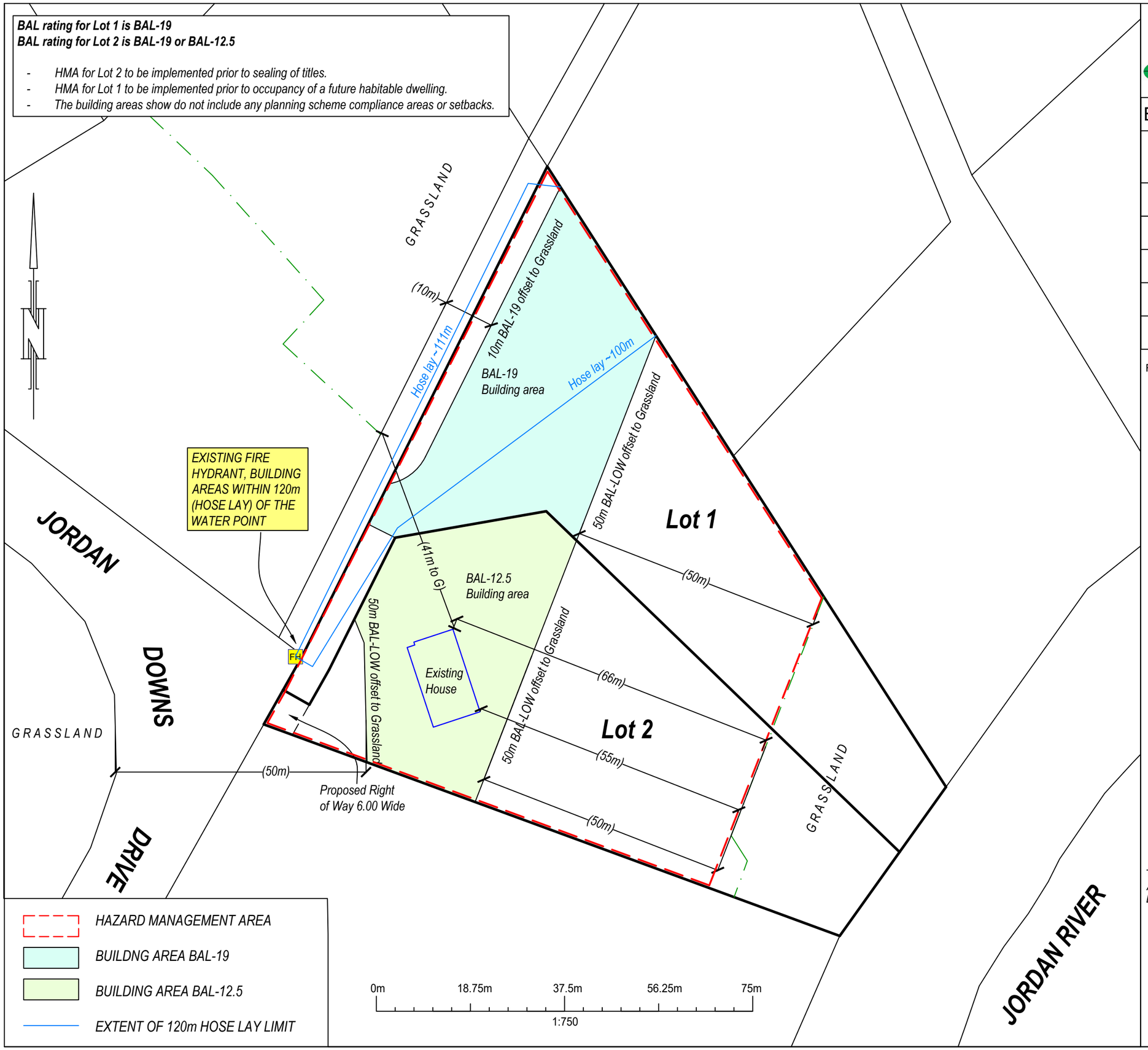
Proposed Subdivision

Date: *25/03/2024*	***Reference:*** ***HILLJ01*** *15413-01*
Scale: *1:750 (A3)*	***Municipality:*** *BRIGHTON*

10 APPENDIX C – BUSHFIRE HAZARD MANAGEMENT PLAN

BAL rating for Lot 1 is BAL-19
BAL rating for Lot 2 is BAL-19 or BAL-12.5

- *HMA for Lot 2 to be implemented prior to sealing of titles.*
- *HMA for Lot 1 to be implemented prior to occupancy of a future habitable dwelling.*
- *The building areas show do not include any planning scheme compliance areas or setbacks.*



ROGERSON & BIRCH SURVEYORS
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BUSHFIRE HAZARD MANAGEMENT PLAN

LOCATION:	20 Jordan Downs Drive, Brighton TAS 7030
TITLE REFERENCE:	C.T.30200/44
PROPERTY ID:	7380675
MUNICIPALITY:	Brighton
DATE:	2nd of July 2024 (v1.0)
SCALE: 1:750@ A3	REFERENCE: HILLJ01

REQUIREMENTS

1. HAZARD MANAGEMENT AREAS (HMA)
   - 1.1. HMA to be established to distances indicated on this plan and as set out in Section 4.1 of the Bushfire Hazard Report.
   - 1.2. Vegetation in the HMA needs to be strategically modified and then maintained in a low fuel state to protect future dwellings from direct flame contact and intense radiant heat. An annual inspection and maintenance of the HMA should be conducted prior to the bushfire season. All grasses or pastures must be kept short (<100 mm) within the HMA. Fine fuel loads at ground level such as leaves, litter and wood piles must be minimal to reduce the quantity of wind borne sparks and embers reaching buildings; and to halt or check direct flame attack.
   - 1.3. Some trees can be retained provided there is horizontal separation between the canopies; and low branches are removed to create vertical separation between the ground and the canopy. Small clumps of established trees and/or shrubs may act to trap embers and reduce wind speeds.
   - 1.4. No trees to overhang houses to prevent branches or leaves from falling on the building.
   - 1.5. Non-combustible elements including driveways, paths and short cropped lawns are recommended within the HMA.
   - 1.6. Fine fuels (leaves bark, twigs) should be removed from the ground periodically (pre-fire season) and all grasses or pastures must be kept short (<100 mm).
2. CONSTRUCTION STANDARDS
   - 2.1. Future dwellings within the specified building areas to be designed and constructed to BAL ratings shown on this plan in accordance with AS3959:2018 at the time of building approval
   - 2.2. Future outbuildings within 6m of a class 1a dwelling must be constructed to the same BAL as the dwelling or provide fire separation in accordance with Clause 3.2.3 of AS3959:2018.
3. PUBLIC AND FIRE-FIGHTING ACCESS REQUIREMENTS
   - 3.1. Access to all lots must comply with the design and construction requirements specified in Section 4.2 of the Bush Fire Report.
4. RETICULATED FIRE-FIGHTING WATER SUPPLY

4.1 The reticulated water supply must be;
- Consistent with the specifications outlined in section 4.3 of the Bushfire Report.

This plan is to be read in conjunction with the preceding *Bushfire Assessment Report "Proposed 2 Lot Subdivision 20 Jordan Downs Drive, Brighton" dated 21/06/2024.*

BHMP BY JAMES ROGERSON
ACCREDITED BUSHFIRE PRACTITIONER (BFP-161), scopes: 1, 2 & 3B

JR BUSHFIRE ASSESSMENTS

11 APPENDIX D – PLANNING CERTIFICATE

BUSHFIRE-PRONE AREAS CODE

CERTIFICATE[1] 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:	**20 Jordan Downs Drive, Brighton TAS 7030**
Certificate of Title / PID:	**C.T.30200/44 / 7380675**

2. Proposed Use or Development

Description of proposed Use and Development:	**TWO LOT SUBDIVISION OF C.T.30200/44**
Applicable Planning Scheme:	**Tasmanian Planning Scheme - Brighton**

3. Documents relied upon

This certificate relates to the following documents:

Title	Author	Date	Version
SUBDIVISION PROPOSAL PLAN	ROGERSON & BIRCH SURVEYORS	25/03/2024	01
BUSHFIRE HAZARD REPORT – 20 JORDAN DOWNS DRIVE, BRIGHTON	JAMES ROGERSON – JR BUSHFIRE ASSESSMENTS	21/06/2024	1.0
BUSHFIRE HAZARD MANGAEMENT PLAN– 20 JORDAN DOWNS DRIVE, BRIGHTON	JAMES ROGERSON – JR BUSHFIRE ASSESSMENTS	02/07/2024	1.0

[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:

☐	**E1.4 / C13.4 – Use or development exempt from this Code**	
	Compliance test	**Compliance Requirement**
☐	E1.4(a) / C13.4.1(a)	

☐	**E1.5.1 / C13.5.1 – Vulnerable Uses**	
	Acceptable Solution	**Compliance Requirement**
☐	E1.5.1 P1 / C13.5.1 P1	***Planning authority discretion required. A proposal cannot be certified as compliant with P1.***
☐	E1.5.1 A2 / C13.5.1 A2	
☐	E1.5.1 A3 / C13.5.1 A2	

☐	**E1.5.2 / C13.5.2 – Hazardous Uses**	
	Acceptable Solution	**Compliance Requirement**
☐	E1.5.2 P1 / C13.5.2 P1	***Planning authority discretion required. A proposal cannot be certified as compliant with P1.***
☐	E1.5.2 A2 / C13.5.2 A2	
☐	E1.5.2 A3 / C13.5.2 A3	

☐	**E1.6.1 / C13.6.1 Subdivision: Provision of hazard management areas**	
	Acceptable Solution	**Compliance Requirement**
☐	E1.6.1 P1 / C13.6.1 P1	***Planning authority discretion required. A proposal cannot be certified as compliant with P1.***
☐	E1.6.1 A1 (a) / C13.6.1 A1(a)	
☒	E1.6.1 A1 (b) / C13.6.1 A1(b)	Provides BAL-19 for all lots (including any lot designated as 'balance')

☐	E1.6.1 A1(c) / C13.6.1 A1(c)	

☐	**E1.6.2 / C13.6.2 Subdivision: Public and fire fighting access**	
	Acceptable Solution	**Compliance Requirement**
☐	E1.6.2 P1 / C13.6.2 P1	
☐	E1.6.2 A1 (a) / C13.6.2 A1 (a)	
☒	E1.6.2 A1 (b) / C13.6.2 A1 (b)	Access complies with relevant Tables

☐	**E1.6.3 / C13.1.6.3 Subdivision: Provision of water supply for fire fighting purposes**	
	Acceptable Solution	**Compliance Requirement**
☐	E1.6.3 A1 (a) / C13.6.3 A1 (a)	
☒	E1.6.3 A1 (b) / C13.6.3 A1 (b)	Reticulated water supply complies with relevant the Table.
☐	E1.6.3 A1 (c) / C13.6.3 A1 (c)	
☐	E1.6.3 A2 (a) / C13.6.3 A2 (a)	
☐	E1.6.3 A2 (b) / C13.6.3 A2 (b)	
☐	E1.6.3 A2 (c) / C13.6.3 A2 (c)	

5. Bushfire Hazard Practitioner

Name:	JAMES ROGERSON	**Phone No:**	0488372283
Postal Address:	UNIT 1-2 KENNEDY DRIVE, CAMBRIDGE PARK	**Email Address:**	JR.BUSHFIREASSESSMENTS@GMAIL.COM
Accreditation No:	BFP – 161	**Scope:**	1, 2, 3B

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 for lot 3.

Signed: *certifier*

Name: JAMES ROGERSON **Date:** 2/7/2024

Certificate Number: 161

(for Practitioner Use only)

GEOTECH 25-005

ROCK SOLID GEOTECHNICS PTY LTD

16/1/2025

Peter Hofto
163 Orielton Road
ORIELTON
TAS 7172

0417 960 769
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CLIENT:
Jeremy Hills 0417444773
jeremyp.hills@hotmail.com

Via Rogerson & Birch Surveyors
kathy@rbsurveyors.com

Geotechnical Assessment - 20 Jordan Downs Drive, Brighton

This report assesses the onsite wastewater and stormwater potential of the land designated for a subdivision at 20 Jordan Downs Drive, Brighton. Jeremy Hills has proposed a two-lot subdivision of the property (Figures 1 & 2). It is proposed to subdivide the property into;

Lot 1	5009m^2	Vacant Land
Lot 2	5007m^2	Land with current residence

The Brighton Council has requested the following under the *Tasmanian Planning Scheme – Brighton;*

- Provide a report from a suitably qualified person demonstrating that each lot is capable of accommodating an on-site wastewater treatment system adequate for the future use and development of the land. The report must also address the suitability of onsite stormwater disposal.

For this report, it is reasonable to assume that a likely minimum future use of Lot 1 is the development of a three to four bedroom residence and associated infrastructure.

INVESTIGATION

A field survey was completed on Friday 20 December, 2024, encompassing field mapping of geological and geomorphological features and hazards to assess the site for onsite wastewater disposal potential.

Three Test Holes were completed on proposed Lot 1, utilising a 4WD mounted SAMPLA25 mechanical auger with 100mm diameter solid flight augers. The locations of the Test Holes are marked on Figure 2.

The 1:25000 Mines Department Digital Geological Map 'Tea Tree' indicates that the site is underlain by Tertiary basalt.

Lot 1 – 5009m^2 Vacant Land

Lot 1 will be an internal block, accessed directly from Jordan Downs Drive, and bounding the land adjacent to the Jordon River to the east (Plate 1). The upper portion of the block (area designated for development) slopes shallowly at between 3 and 5 degrees to the east, with the eastern portion of the site increasing in slope adjacent to the Jordon River. Lot 1 is covered in grass and minor trees.

Plate 1 – Lot 1 - Looking to the north.

The profile encountered in Test Hole #3 (Plate 2) consisted of;

0.00 – 0.20m	SAND: fine grained, light brown, trace rootlets - TOPSOIL
0.20 – 0.85m	SAND: fine grained, brown / yellowish brown, dry
0.85m+	Mechanical auger refusal on basalt bedrock – 0.85m.

Test Hole #1 encountered sand over basalt bedrock at 0.30m.
Test Hole #2 encountered sand over basalt bedrock at 0.50m.

Groundwater was not encountered in either test hole.

Plate 2 – Lot 1. Test Hole #3 - Looking to the west.

The site is classified as CLASS 1 (SAND) over CLASS 6 (BEDROCK) (AS1547) w.r.t. onsite wastewater disposal, however the *2016 Director's Guidelines for Onsite Wastewater Management Systems* states;

- If dispersive soils or a limiting layer are encountered within the upper 1m of the soil profile, then the area required must be calculated on the basis of the requirements for Category 6 soil.

- 130m^2 of wastewater Land Application Area (LAA) per bedroom is required for this site (Category 6 soil).

The size of the Land Application Area (LAA) is also conditional on the potential wastewater load entering the system and the permeability of the site. The potential wastewater load is determined by the number of bedrooms in the dwelling (as mentioned above this assessment is based on ensuring that the proposed block can sustain a residence with a minimum of three bedrooms).

This site is not suitable for the installation of a standard, septic tank and trench based onsite wastewater system. It is likely that an Aerated Wastewater Treatment System (AWTS) will be required to secondary treat the wastewater effluent, then discharging to an irrigation area utilising subsurface driplines.

A maximum of 520m^2 of LAA will be required to comply with the abovementioned *2016 Director's Guidelines for Onsite Wastewater Management Systems*.

Lot 1 can comfortably accommodate a wastewater system for a 3-4 bedroom residence (520m^2 LAA).

The type, size and position of onsite wastewater system will need to be determined by site specific investigation, when the details of the individual development are determined.

Lot 2 – 5007m^2 Land with current residence

Lot 2 hosts the current residence. The current onsite wastewater system (installed in 1989 – Figure 3) consists of;

- a septic tank that accepts the blackwater, discharging to a single 15m absorption trench,
- greywater discharging to a single 15m absorption trench.

The onsite wastewater system is wholly contained on Lot 2.

The wastewater system is currently being assessed and modified / replaced (report by others).

The property is also underlain by sand over Tertiary basalt bedrock, so logically the maximum area required for wastewater disposal (as defined in the *2016 Director's Guidelines for Onsite Wastewater Management Systems)* is 130m^2 per bedroom. Lot 2 can comfortably accommodate a wastewater system for a 4-bedroom residence.

STORMWATER MANAGEMENT

Stormwater (SW) suitability is primarily determined by the permeability, aspect, and slope of the sites. Although the sites are underlain by shallow basalt bedrock, water will easily be accepted into the profile by lateral seepage through the sandy topsoil.

SW will consist of roof water and water collected from hard surfaces (driveways etc).

Installing shallow trench(es) to discharge the SW will be appropriate on both sites. SW could also be contained on site by surface discharge into garden beds.

It is logical that any SW discharge point or trench should be installed away from, or preferably downslope from any onsite wastewater Land Application Area.

RECCOMENDATIONS

Proposed Lot 1 and Lot 2 can sustain onsite wastewater systems for single, 3-4 bedroom dwellings, in compliance with the *Land Use Planning and Approvals Act 1993* and the *Tasmanian Planning Scheme – Brighton Council.*

Both lots can accommodate on-site stormwater management systems.

PETER HOFTO
ROCK SOLID GEOTECHNICS PTY LTD

SITE AND SOIL EVALUATION REPORT

Soil Category: (as stated in AS/NZS 1547-2000) 1,…2,…3,…4,…5,…6	Modified Emerson Test Required: No If Yes, Emerson Class No. ....
Soil Profile:	See main Report. The locations of the test holes are nominated on the site plan.
Measured or Estimated Soil Permeability (m/d):	0.5m/d
Design Irrigation Rate (DIR)	2mm/day (Secondary Treated Effluent)
Geology:	Tertiary basalt

Slope:	3-5 degrees
Drainage lines / water courses:	Jordon River to the east
Vegetation:	Grass
Site History: (land use)	Residential block
Aspect:	East
Pre-dominant wind direction:	Northwest to southwest
Site Stability: Will on-site wastewater disposal affect site stability?	No
Is geological advice required?	No
Drainage/Groundwater:	Not encountered
Depth to seasonal groundwater (m):	Not Encountered
[√] Reticulated	
Date of Site Evaluation:	20/12/2024
Weather Conditions:	Fine

CONDITIONS OF INVESTIGATION

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Due to the possibility of variation in subsurface conditions & materials, the characteristics of materials can vary between sample & observation sites. RSG takes no responsibility for changed or unexpected variations in ground conditions that may affect any aspect of the project. The classifications in this report are based on samples taken from specific sites. The information is not transferable to different sites, no matter how close (ie if the development site is moved from the original assessment site an additional assessment will be required).

It is recommended to notify the author should it be revealed that the sub-surface conditions differ from those presented in this report, so additional assessment & advice may be provided.

Investigations are conducted to standards outlined in Australian Standards:

- AS1726-1993: Geotechnical Site Investigations
- AS1547-2012: Onsite Domestic Wastewater Management

& as specified in 'Guidelines for Geotechnical Assessment of Subdivisions and Recommended Code of Practise for Site Classification to AS2870 in Tasmania' - Institute of Engineers, Tasmanian Division.

PETER HOFTO
ROCK SOLID GEOTECHNICS PTY LTD

FIGURE 1

FIGURE 2

ROGERSON & BIRCH SURVEYORS
UNIT 1, 2 KENNEDY DRIVE
CAMBRIDGE 7170
PHONE: (03)6248 5898
EMAIL: admin@rbsurveyors.com
WEB: www.rbsurveyors.com

Brighton
11.0 Rural Living
11.5 Development Standards for Subdivision

BRI-S8.8.1 Lot Design
A1
(a)- Lot 1 complies - Min. 5000m²
(b)- Lot 1 complies - comply with the lot design standards required by Rural Living Zone - clause 11.5.1 Lot design A1, excluding lot area specified in Table 11.1.

P1- Lot 2 complies
(a)- The relevant requirements for development of existing buildings on the lots;
(b)- The intended location of buildings on the lots;
(c)- The topography of the site;
(d)- Any natural or landscape values;
(e)- Adequate provision of private open space; and
(f)- The pattern of development existing on established properties in the area,
(g)- and must be not less than 5,000m².

11.5.1 Lot Design
P2- All lots comply - Min. 3.6m frontage

A3- All lots comply - vehicular access directly from road

11.5.2 Roads
A1- All lots comply - no new roads

BRI-S8.8.2 Services
A1- All lots comply - TasWater Water supply services to be provided

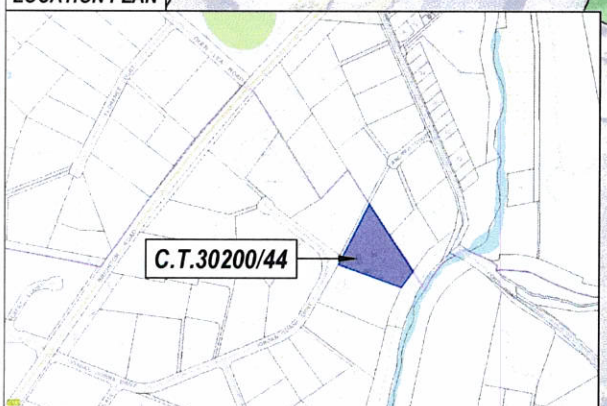
Overlay Legend:

Bushfire-prone Area:	Entire Site
Priority vegetation area:	Entire Site
Flood-Prone Area:	
Low landslip hazard band:	
Waterway and coastal protection area:	

JORDAN DOWNS DRIVE

Existing Water Main
Existing Vegetation to be removed for access to Lot 1
Existing Water Meter
Proposed Access
Existing Access
Existing House
Existing Waste-Water System
Proposed Water Meter
Proposed Right of Way 6.00 Wide
15m x 20m Compliance Area
Min. Compliance Setbacks
Lot 1
5,009m²
Lot 2
5,007m²
108.93
146.93
30.56
29.39
24.543
13.239
7.88
8.89
6.00
97.82
122.29
15.93
20.54
Existing Sewer Pressurised Main per the LIST (Unk)
Existing 100mm Sewer Pressurised Main per Detail Survey
Proposed Pipeline & Services Easment 2.50m Wide

LOCATION PLAN



REV	AMENDMENTS	DRAWN	DATE	APPR.
E				
D				
C				
B				
A	Add detail survey information to proposal	LH	07/10/24	LH

OWNER: PAUL W. HILLS, MELANIE D. HILLS, JEREMY P. HILLS & EMILY A. HILLS
TITLE REFERENCE: C.T.30200/44
LOCATION: 20 JORDAN DOWNS DRIVE, **BRIGHTON**

Proposed Subdivision

Date:	Reference:
25/03/2024	HILLJ01 15413-01
Scale: 1:750 (A3)	**Municipality:** BRIGHTON

FIGURE 3

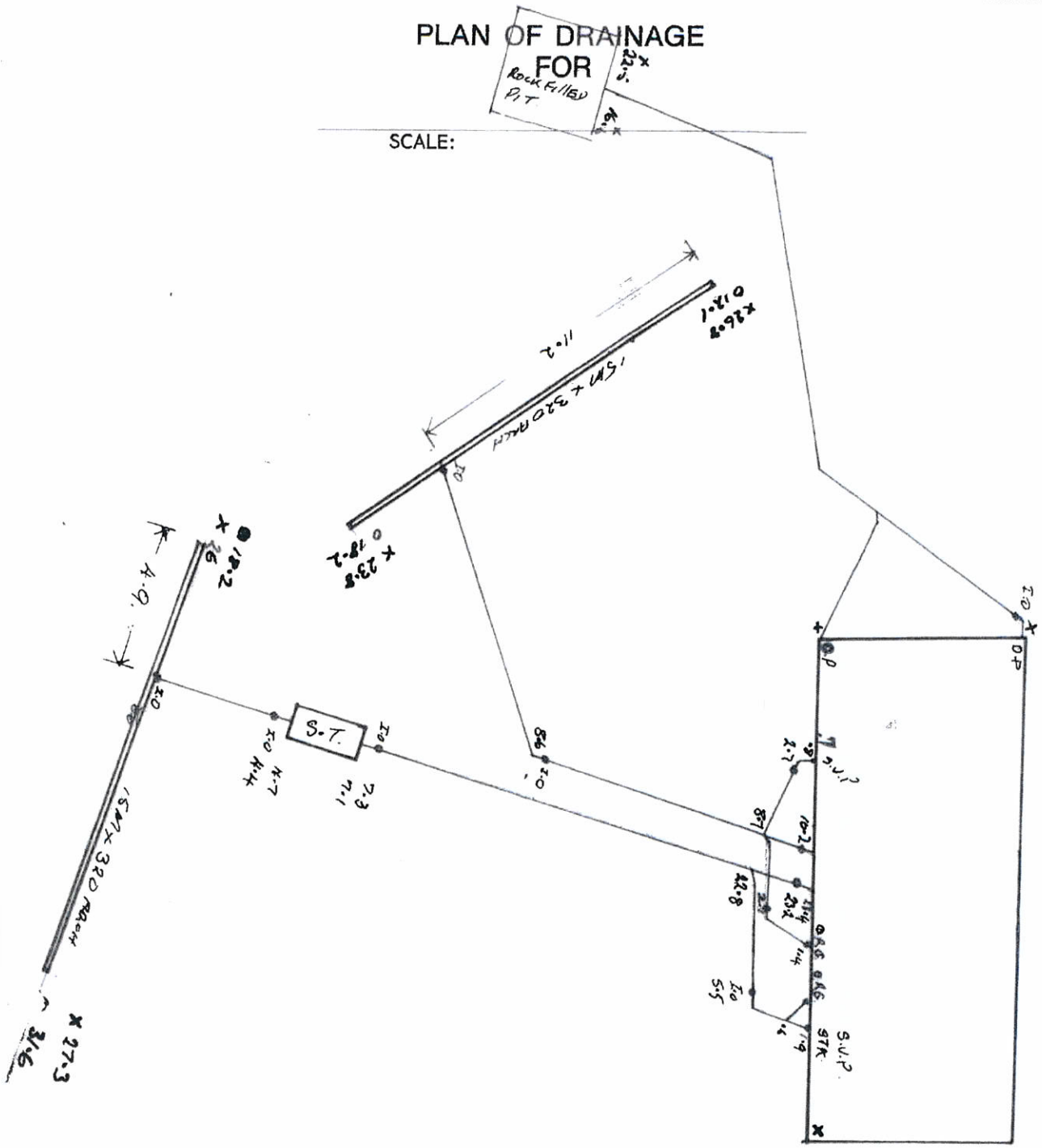
Brighton Municipal Council

Detail Plan No. .....

Drainage Plan No. S.T. 840

PLAN OF DRAINAGE FOR Rock Filled Pit

SCALE:



24-4-89.
LOT 44. JORDAN DOWNS DR.

ON-SITE WASTEWATER ASSESSMENT

20 Jordan Downs Drive

Brighton

December 2024

GEO-ENVIRONMENTAL

SOLUTIONS

Investigation Details

Client:	MIX Property Group
Site Address:	20 Jordan Downs Drive, Brighton
Date of Inspection:	22/10/2024
Proposed Works:	Update to failing wastewater system
Investigation Method:	Geoprobe 540UD - Direct Push
Inspected by:	C. Cooper

Site Details

Certificate of Title (CT):	30200/44
Title Area:	Approx. 1.01 ha
Planning Overlays:	Bushfire-prone areas, Priority Vegetation
Slope & Aspect:	6° E facing slope
Vegetation:	Grass & Weeds,

Background Information

Geology Map:	MRT 1:250000
Geological Unit:	Tertiary Basalt
Climate:	Annual rainfall 450mm
Water Connection:	Tank
Sewer Connection:	Unserviced-On-site required
Testing and Classification:	*AS2870:2011 & AS1726:2017*

Investigation

A number of bore holes were completed to identify the distribution and variation of the soil materials at the site, bore hole locations are indicated on the site plan. See soil profile conditions presented below. Tests were conducted across the site to obtain bearing capacities of the material at the time of this investigation.

Wastewater Profile Summary

Depth (m)	Horizon	Description
0.00 – 0.60	AC	Grey, Brown **Silty SAND (SM):** moist medium dense consistency, refusal on basalt

Site Notes

Soils on site feature silty sands forming over Tertiary basalt. The subsoils are likely to exhibit slight ground surface movement due to the shallow soil depth.

Wastewater Classification & Recommendations

According to AS1547-2012 (on-site waste-water management) the natural soil is classified as **LIGHT CLAY (category 5)**. The shallow soil depth restricts to options for wastewater disposal and secondary treatment of effluent will be require prior to land application. It is proposed to install a package treatment system (e.g. AWTS such as Econcycle, Envirocycle, Ozzikleen etc) with the treated wastewater applied through subsurface irrigation. A Design Irrigation Rate (DIR) of 3mm/day has therefore been assigned.

The proposed development has a calculated maximum wastewater load of 900L/day. This is based on a mains water supply and a maximum occupancy of 6 people (150L/day/person). All fixtures are to connect to the proposed AWTS unit with min 1:60 fall.

Using the DIR of 3mm/day, an irrigation area of at least 300m^2 will be required to accommodate the expected flows. Additional sandy loam (min 100mm) will need to be added to the irrigation area during installation.

A cut-off drain will not be required upslope of the absorption area due to the limited slope angle onsite. However, care is required to ensure all stormwater overflow is directed away from the application area.

A 100% reserve area will need to be set aside and kept free from development for any future wastewater requirements. There is sufficient space available to accommodate the required reserve due to the large property size (>5000m^2).

The following setback distances are required to comply with Building Act 2016:

Upslope or level buildings:	3m
Downslope buildings:	2.25m
Upslope or level boundaries:	1.5m
Downslope boundaries:	2.5m
Downslope surface water:	100m

Compliance with Building Act 2016 Guidelines for On-site Wastewater Management Systems is outlined in the attached table.

During construction GES will need to be notified of any variation to the soil conditions or wastewater loading as outlined in this report.

Dr John Paul Cumming B.Agr.Sc (hons) PhD CPSS GAICD
Directo

GES P/L

Land suitability and system sizing for on-site wastewater management

Trench 3.0 (Australian Institute of Environmental Health)

Assessment Report

Site assessment for on-site waste water disposal

Assessment for	MIX Property Group	Assess. Date	11-Dec-24
		Ref. No.	
Assessed site(s)	20 Jordan Downs Drive, Brighton	Site(s) inspected	22-Oct-24
Local authority	Brighton	Assessed by	JP. Cumming

This report summarises wastewater volumes, climatic inputs for the site, soil characteristics and sustem sizing and design issues. Site Capability and Environmental sensitivity issues are reported separately, where 'Alert' columns flag factors with high (A) or very high (AA) limitations which probably require special consideration for system design(s). Blank spaces on this page indicate data have not been entered into TRENCH.

Wastewater Characteristics

Wastewater volume (L/day) used for this assessment = 900 (using the 'No. of bedrooms in a dwelling' method)
Septic tank wastewater volume (L/day) = 300
Sullage volume (L/day) = 600
Total nitrogen (kg/year) generated by wastewater = 2.7
Total phosphorus (kg/year) generated by wastewater = 2.2

Climatic assumptions for site (Evapotranspiration calculated using the crop factor method)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean rainfall (mm)	41	36	36	45	36	29	46	47	40	48	44	56
Adopted rainfall (R, mm)	41	36	36	45	36	29	46	47	40	48	44	56
Retained rain (Rr, mm)	37	32	32	41	32	26	41	42	36	43	40	50
Max. daily temp. (deg. C)												
Evapotrans (ET, mm)	130	110	91	63	42	29	32	42	63	84	105	126
Evapotr. less rain (mm)	**93**	**78**	**59**	**23**	**10**	**3**	**-10**	**0**	**27**	**41**	**65**	**76**

Annual evapotranspiration less retained rain (mm) = 463

Soil characterisitics

Texture = Light clay Category = 5 Thick. (m) = 0.6
Adopted permeability (m/day) = 0.12 Adopted LTAR (L/sq m/day) = 3 Min depth (m) to water = 5

Proposed disposal and treatment methods

Proportion of wastewater to be retained on site:	All wastewater will be disposed of on the site
The preferred method of on-site primary treatment:	In a package treatment plant
The preferred method of on-site secondary treatment:	In-ground
The preferred type of in-ground secondary treatment:	None
The preferred type of above-ground secondary treatment:	None
Site modifications or specific designs:	Not needed

Suggested dimensions for on-site secondary treatment system

Total length (m) =	30
Width (m) =	10
Depth (m) =	0.2
Total disposal area (sq m) required =	300
comprising a Primary Area (sq m) of:	300
and a Secondary (backup) Area (sq m) of:	

Sufficient area is available on site

Comments

Using a DIR of 3mm/day for the Category 5 soils on site, an irrigation area of at least 300m^2 is required for secondary treated effluent. The system should have the capacity to cope with predicted climatic and loading events.

GES P/L

Land suitability and system sizing for on-site wastewater management

Trench 3.0 (Australian Institute of Environmental Health)

Site Capability Report

Site assessment for on-site waste water disposal

Assessment for	MIX Property Group	Assess. Date	11-Dec-24
		Ref. No.	
Assessed site(s)	20 Jordan Downs Drive, Brighton	Site(s) inspected	22-Oct-24
Local authority	Brighton	Assessed by	JP. Cumming

This report summarises data relating to the physical capability of the assessed site(s) to accept wastewater. Environmental sensitivity and system design issues are reported separately. The 'Alert' column flags factors with high (A) or very high (AA) site limitations which probably require special consideration in site acceptability or for system design(s). Blank spaces indicate data have not been entered into TRENCH.

Alert	Factor	Units	Value	Confid level	Limitation		Remarks
					Trench	Amended	
	Expected design area	sq m	5,000	V. high	Very low		
	Density of disposal systems	/sq km	10	Mod.	Very low		
	Slope angle	degrees	1	High	Very low		
	Slope form	Straight simple		High	Low		
	Surface drainage	Imperfect		High	Moderate		
	Flood potential	Site floods <1:100 yrs		High	Very low		
	Heavy rain events	Infrequent		High	Moderate		
	Aspect (Southern hemi.)	Faces N		V. high	Very low		
	Frequency of strong winds	Common		High	Low		
A	Wastewater volume	L/day	900	High	High		
	SAR of septic tank effluent		1.7	High	Low		
	SAR of sullage		2.6	High	Moderate		
	Soil thickness	m	0.6	V. high	Moderate		
AA	Depth to bedrock	m	0.6	V. high	Very high		
	Surface rock outcrop	%	0	V. high	Very low		
	Cobbles in soil	%	0	V. high	Very low		
	Soil pH		5.5	High	Low		
	Soil bulk density	gm/cub. cm	1.4	High	Very low		
	Soil dispersion	Emerson No.	8	V. high	Very low		
	Adopted permeability	m/day	0.12	Mod.	Very low	Moderate	
A	Long Term Accept. Rate	L/day/sq m	3	High	High		

Comments

The site has the capability to accept secondary treated wastewater.

GES P/L

Land suitability and system sizing for on-site wastewater management

Trench 3.0 (Australian Institute of Environmental Health)

Environmental Sensitivity Report

Site assessment for on-site waste water disposal

Assessment for	MIX Property Group	Assess. Date	11-Dec-24
		Ref. No.	
Assessed site(s)	20 Jordan Downs Drive, Brighton	Site(s) inspected	22-Oct-24
Local authority	Brighton	Assessed by	JP. Cumming

This report summarises data relating to the environmental sensitivity of the assessed site(s) in relation to applied wastewater. Physica capability and system design issues are reported separately. The 'Alert' column flags factors with high (A) or very high (AA) limitations which probably require special consideration in site acceptability or for system design(s). Blank spaces indicate data have not been entered into TRENCH.

Alert	Factor	Units	Value	Confid level	Limitation Trench	Limitation Amended	Remarks
	Cation exchange capacity	mmol/100g	70	High	Moderate		
A	Phos. adsorp. capacity	kg/cub m	0.5	High	High		
	Annual rainfall excess	mm	-463	High	Very low		
	Min. depth to water table	m	5	High	Very low		
	Annual nutrient load	kg	4.9	High	Very low		
	G'water environ. value	Agric non-sensit		V. high	Low		
	Min. separation dist. required	m	2	High	Very low		
	Risk to adjacent bores	Very low		V. high	Very low		
	Surf. water env. value	Agric non-sensit		V. high	Low		
	Dist. to nearest surface water	m	140	V. high	Moderate		
	Dist. to nearest other feature	m	70	V. high	Low		
	Risk of slope instability	Very low		V. high	Very low		
	Distance to landslip	m	100	V. high	Moderate		

Comments

There is low risk of environmental harm associated with wastewater disposal at this site. Secondary treatment of wastewater is required

Demonstration of wastewater system compliance to *Building Act 2016 Guidelines for On-site Wastewater Disposal*

Acceptable Solutions	**Performance Criteria**	**Compliance**
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	Complies with A1 (b) (i) Land application area will be located with a minimum separation distance of 3m from an upslope or level building.
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 down slope 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/NZS 1547 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.	Complies with A2 (a) Land application area located > 100m from downslope surface water

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/NZS 1547 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.	Complies with A3 (b) (i) Land application area will be located with a minimum separation distance of 1.5m from an upslope or level property boundary Complies with A3 (b) (iii) Land application area will be located with a minimum separation distance of 2.5m of downslope property boundary
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	Complies with A4 No bore or well identified within 50m

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	Complies with A5 (b)
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.	Complies with A6 (b) Additional sandy loam (min 100mm) to be applied to the application area
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	Complies

AS1547:2012 – Loading Certificate – AWTS Design

This loading certificate sets out the design criteria and the limitations associated with use of the system.

Site Address: 12a Jordan Downs Drive, Brighton

System Capacity: 6 persons @ 150L/person/day

Summary of Design Criteria

DIR: 3mm/day.

Irrigation area: 300m^2

Reserve area location /use: Not assigned – more than 100% available

Water saving features fitted: Standard fixtures

Allowable variation from design flows: 1 event @ 200% daily loading per quarter

Typical loading change consequences: Expected to be minimal due to use of AWTS and large land area

Overloading consequences: Continued overloading may cause hydraulic failure of the irrigation area and require upgrading/extension of the area. Risk considered acceptable due to monitoring through quarterly maintenance reports.

Underloading consequences: Lower than expected flows will have minimal consequences on system operation unless the house has long periods of non occupation. Under such circumstances additional maintenance of the system may be required. Long term under loading of the system may also result in vegetation die off in the irrigation areas and additional watering may be required. Risk considered acceptable due to monitoring through quarterly maintenance reports.

Lack of maintenance / monitoring consequences: Issues of underloading/overloading and condition of the irrigation area require monitoring and maintenance, if not completed system failure may result in unacceptable health and environmental risks. Monitoring and regulation by the permit authority required to ensure compliance.

Other considerations: Owners/occupiers must be made aware of the operational requirements and limitations of the system by the installer/maintenance contractor.

CERTIFICATE OF THE RESPONSIBLE DESIGNER

Section 94
Section 106
Section 129
Section 155

Form **35**

To: MIX Property Group *Owner name*
16 Victoria Street *Address*
Hobart 7000 *Suburb/postcode*

Designer details:

Name: John-Paul Cumming
Category: Bld. Srvcs. Dsgnr. - Hydraulic
Business name: Geo-Environmental Solutions
Phone No: 03 6223 1839
Business address: 29 Kirksway Place
Battery Point 7004
Fax No: N/A
Licence No: CC774A
Email address: office@geosolutions.net.au

Details of the proposed work:

Owner/Applicant MIX Property Group
Designer's project reference No. J11017
Address: 20 Jordan Downs Drive
Lot No: 30200/44
Brighton 7030

Type of work: Building work ☐ Plumbing work ☒ *(X all applicable)*

Description of work:
On-site wastewater management system - design

(new building / alteration / addition / repair / removal / re-erection water / sewerage / stormwater / on-site wastewater management system / backflow prevention / other)

Description of the Design Work (Scope, limitations or exclusions): *(X all applicable certificates)*

Certificate Type:	Certificate	Responsible Practitioner
	☐ Building design	Architect or Building Designer
	☐ Structural design	Engineer or Civil Designer
	☐ Fire Safety design	Fire Engineer
	☐ Civil design	Civil Engineer or Civil Designer
	☒ Hydraulic design	Building Services Designer
	☐ Fire service design	Building Services Designer
	☐ Electrical design	Building Services Designer
	☐ Mechanical design	Building Service Designer
	☐ Plumbing design	Plumber-Certifier; Architect, Building Designer or Engineer
	☐ Other (specify)	

Deemed-to-Satisfy: ☒ Performance Solution: ☐ *(X the appropriate box)*

Other details:

Design documents provided:

The following documents are provided with this Certificate –

Document description:

Drawing numbers:	Prepared by: Geo-Environmental Solutions	Date: Dec-24
Schedules:	Prepared by:	Date:
Specifications:	Prepared by: Geo-Environmental Solutions	Date: Dec-24
Computations:	Prepared by:	Date:
Performance solution proposals:	Prepared by:	Date:
Test reports:	Prepared by: Geo-Environmental Solutions	Date: Dec-24

Standards, codes or guidelines relied on in design process:

AS1547:2012 On-site domestic wastewater management.

AS3500 (Parts 0-5)-2013 Plumbing and drainage set.

Any other relevant documentation:

Onsite Wastewater Assessment - 20 Jordan Downs Drive, Brighton - Dec-24

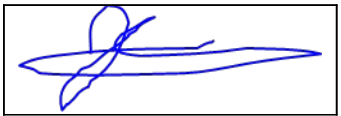
Onsite Wastewater Assessment - 20 Jordan Downs Drive, Brighton - Dec-24

Attribution as designer:

I John-Paul Cumming, am responsible for the design of that part of the work as described in this certificate;

The documentation relating to the design includes sufficient information for the assessment of the work in accordance with the *Building Act 2016* and sufficient detail for the builder or plumber to carry out the work in accordance with the documents and the Act;

This certificate confirms compliance and is evidence of suitability of this design with the requirements of the National Construction Code.

	Name: (print)	*Signed*	*Date*
Designer:	John-Paul Cumming		11/12/2024
Licence No:	CC774A		

Assessment of Certifiable Works: (TasWater)

Note: single residential dwellings and outbuildings on a lot with an existing sewer connection are not considered to increase demand and are not certifiable.

If you cannot check ALL of these boxes, LEAVE THIS SECTION BLANK.

TasWater must then be contacted to determine if the proposed works are Certifiable Works.

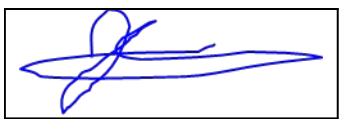
I confirm that the proposed works are not Certifiable Works, in accordance with the Guidelines for TasWater CCW Assessments, by virtue that all of the following are satisfied:

- [x] The works will not increase the demand for water supplied by TasWater
- [x] The works will not increase or decrease the amount of sewage or toxins that is to be removed by, or discharged into, TasWater's sewerage infrastructure
- [x] The works will not require a new connection, or a modification to an existing connection, to be made to TasWater's infrastructure
- [x] The works will not damage or interfere with TasWater's works
- [x] The works will not adversely affect TasWater's operations
- [x] The work are not within 2m of TasWater's infrastructure and are outside any TasWater easement
- [x] I have checked the LISTMap to confirm the location of TasWater infrastructure
- [x] If the property is connected to TasWater's water system, a water meter is in place, or has been applied for to TasWater.

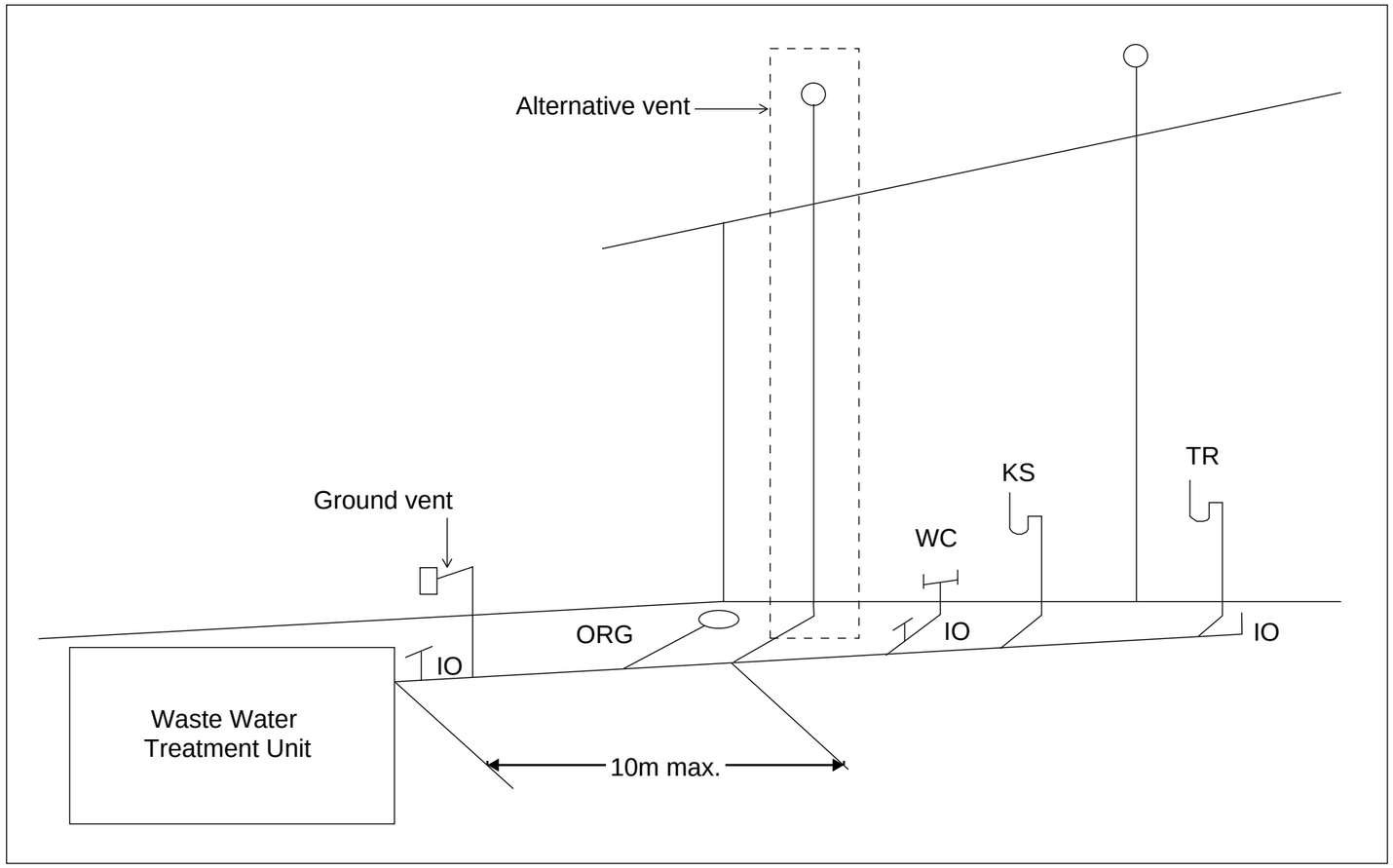
Certification:

I ..... John-Paul Cumming..... being responsible for the proposed work, am satisfied that the works described above are not Certifiable Works, as defined within the *Water and Sewerage Industry Act 2008,* that I have answered the above questions with all due diligence and have read and understood the Guidelines for TasWater CCW Assessments.

Note: the Guidelines for TasWater Certification of Certifiable Works Assessments are available at: www.taswater.com.au

	Name: (print)	*Signed*	*Date*
Designer:	John-Paul Cumming		11/12/2024

GES
GEO-ENVIRONMENTAL
SOLUTIONS
29 Kirksway Place, Battery Point
T| 62231839 E| office@geosolutions.net.au



Tas Figure C2D6 Alternative Venting Arrangements

Vents must terminate in accordance with AS/NZS 3500.2

Alternative venting to be used by extending a vent to terminate as if an upstream vent, with the vent connection between the last sanitary fixture or sanitary appliance and the on-site wastewater management system. Use of a ground vent in not recommended

Inspection openings must be located at the inlet to an on-site wastewater management system treatment unit and the point of connection to the land application system and must terminate as close as practicable to the underside of an approved inspection opening cover installed at the finished surface level

Access openings providing access for desludging or maintenance of on-site wastewater management system treatment unites must terminate at or above finished surface level

Do not scale from these drawings. Dimensions to take precedence over scale.				Tas Figure C2D6 Alternative Venting Arrangements		Sheet 1 of 1

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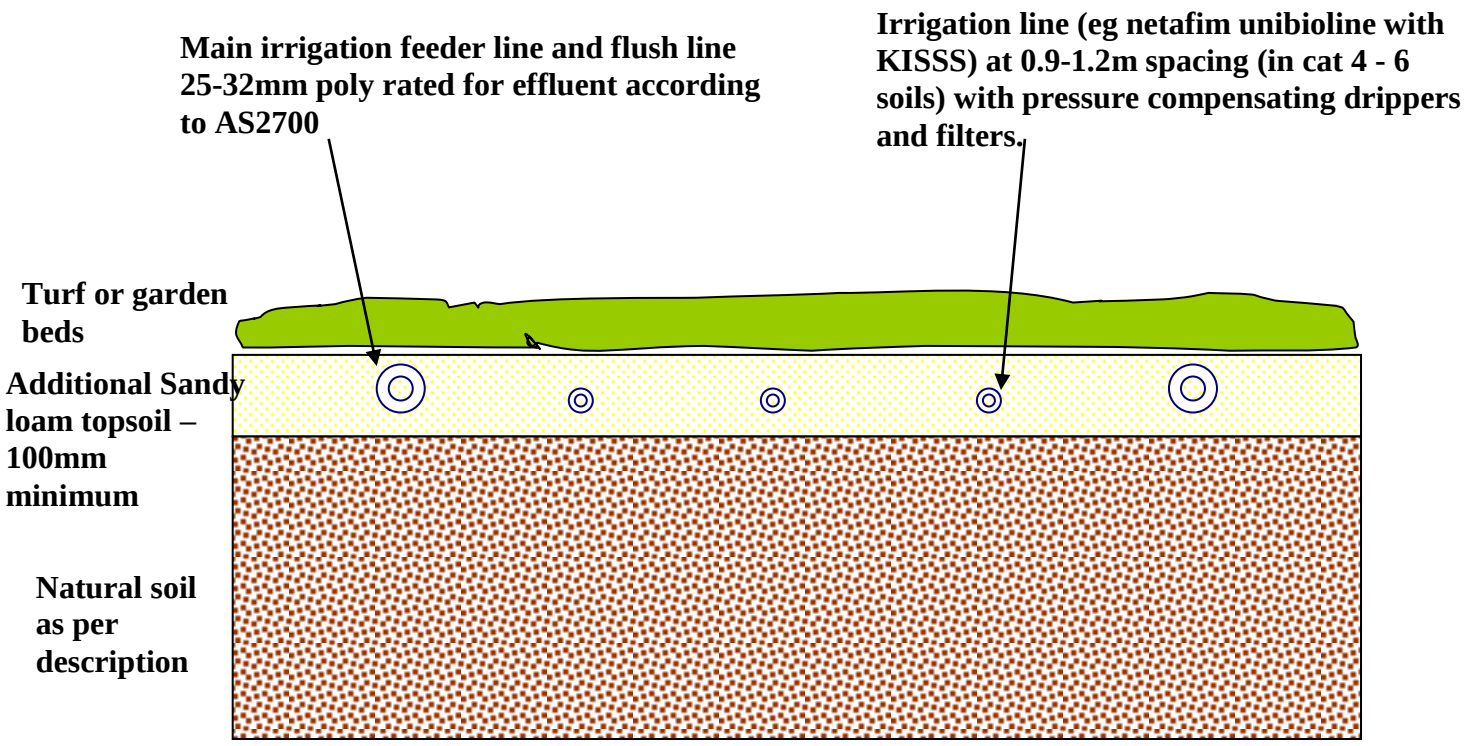
Figure 1

Subsurface irrigation design

To be used in conjunction with site evaluation report for construction of subsurface irrigation areas for use with aerated wastewater treatment systems (AWTS). On dispersive soils gypsum should be added to tilled natural soil at 1Kg/5m^2. The irrigation outlet line from the system or holding tank should utilize a 25-32mm main line out stepped down to a 11-16mm lateral drip irrigation lines in each irrigation row. If the final design is for shrubs/trees then a mounded row design is best employed with a nominal mound height of approximately 200mm.

Irrigation Area Cross Section



Note – the bedding sandy loam & topsoil/turf depths are minimum, with a maximum depth below surface of 100mm recommended (range 100-200mm).

- The existing surface of the site should be tilled to a depth of 100mm with a conventional plough, discs or spring tines to break down the turf matt and any large soil clods – all stones must be removed
- A minimum of 100mm of sandy loam should be added to the site to aid installation of the drip line into a suitable medium – the loam should be mixed into the exiting subsoil with another pass of the cultivating tines or similar
- Turf, seed or plants should be applied to the are as soon as practical after the laying of dripper line and commissioning of the system

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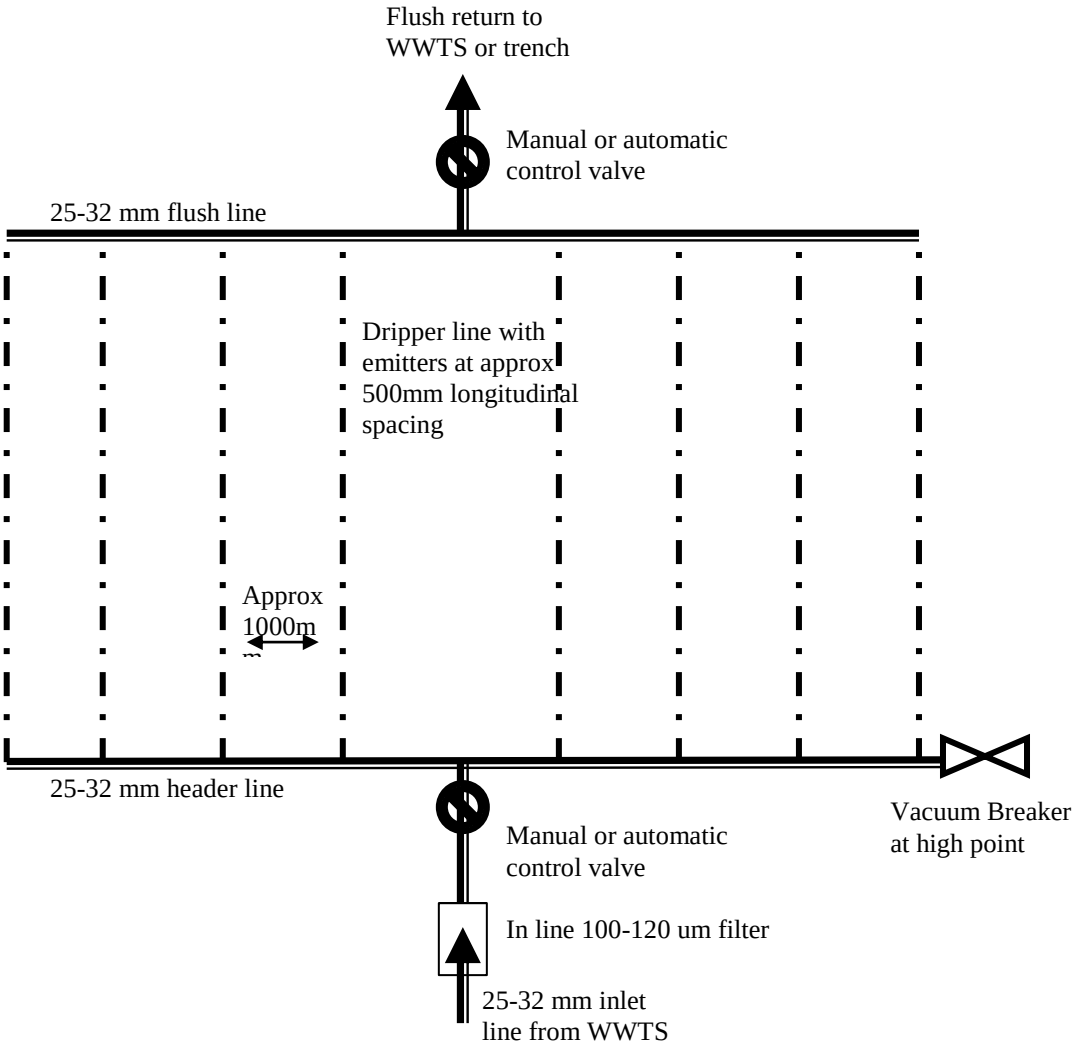
Irrigation Area Plan View



Design specifications:

1. Manufacturer's recommendations for spacing of lateral irrigation lines should be followed (eg netafim unibioline with/without KISSS) with commonly used with spacing of 0.3m (0.6m KISSS) in highly permeable soils and 0.6m (1.0-1.2m KISSS) in less permeably loams and clays.
2. Dependant upon treatment system a 200µm filter may be installed at the pumping chamber outlet, but a 100-120 µm inline disc filter should be installed prior to discharge into the irrigation area.
3. A vacuum breaker valve must be installed at the highest point of each irrigation zone in a marked and protected valve control box.
4. A flush line must be installed at the lowest point/bottom of the irrigation area with a return valve for flushing back into the treatment chamber of the system (not into the primary chamber as it may affect the performance of the microbial community) or to a dedicated absorption trench.
5. The minimum irrigation pumping capacity should be equivalent to 120kpa (i.e. 12m of head) at the furthest point of the irrigation area (a gauge should be placed at the vacuum breaker) – therefore pump size can be matched on site to the irrigation pipe size and design.

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Wastewater system:

Existing system to be replaced

New AWTS unit

Subsurface Irrigation area 300m² (100mm sandy loam added to aid installation - vegetation removed as required) - to be located clear of future subdivision boundary

Min 3m from upslope buildings
Min 1.5m from upslope or level boundaries
Min 2.5m from downslope boundary
Min 100m from downslope surface water

Refer to GES report

Dr. John Paul Cumming
Building Services Designer-Hydraulic
CCC774A

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Wastewater system:

Existing onsite wastewater infrastructure to be decommissioned.
All fixtures to connect to proposed AWTS unit.
Min 1:60 fall required

Subsurface irrigation - 300m²

Do not scale from these drawings. Dimensions to take precedence over scale.	20 Jordan Downs Drive BRIGHTON 7030	C.T.: 30200/44	Date: 9/05/2025	DRAFT On-Site Wastewater Management Plan	1:400 @ A3	Sheet 1 of 1 Drawn by: SR