

PLANNING APPLICATION FORM

Section 57 & 58

OFFICE USE
ONLY

Application Number PA2026261
Assess No: A12136
PID No: 3601258

Applicant Name:	PDA Surveyors, Engineers & Planners obo Leigh & Josephine De Deuge				
Applicant Contact Name					
Postal Address:					
Contact Phone:	Home		Work		Mobile
Email Address:					

Planning Application Lodgement Checklist

The following documents have been submitted to support the consideration of this application:

1. A current copy of the property title text, folio plan and schedule of easements ☐
2. A completed application form including a detailed description of the proposal ☐
3. A complete plan set: ☐
 - a) Floor plans ☐
 - b) Elevations (from all orientations/sides and showing natural ground level and finished surface level) ☐
 - c) Site Plan showing: ☐
 - Orientation
 - All title boundaries
 - Location of buildings and structure (both existing and proposed)
 - Setbacks from all boundaries
 - Native vegetation to be removed
 - Onsite services, connections and drainage details (including sewer, water and stormwater)
 - Cut and/or Fill
 - Car parking and access details (including construction material of all trafficable areas)
 - Fence details
 - Contours
4. Other: ☐

*If submitting plans in over the counter please ensure they are A3.
All plans must be to scale.*

Application Number: «Application Number»

APPLICANT DETAILS

Applicant Name:	Allan Brooks
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Note: Full name(s) of person(s) or company making the application and postal address for correspondence.

LAND DETAILS

Owner/Authority Name: (as per certificate of title)	Leigh & Josephine De Deuge
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Location / Address:	11 Upper McEwan Road, Legana
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Title Reference:	174506/1
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Zone(s):	Rural Living
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Existing Development/Use:	Residential
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Existing Developed Area:	1.6ha
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Are any of the components in this Application seeking retrospective approval? E.g. Use and/or development that has commenced without a Planning Permit.	YES ☐
	NO ☐

(If yes please specify the relevant components):

DEVELOPMENT APPLICATION DETAILS

Proposed Use:	Residential: ☐	Visitor Accommodation: ☐	Commercial: ☐	Other: ☐
	Description of Use:			

Development Type:	Building work: ☐	Demolition: ☐	Subdivision: ☐	Other: ☐
	Description of development: 2 Lot Subdivision			

New or Additional Area:	
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Estimated construction cost of the proposed development:	
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Building Materials:	Wall Type:	Colour:
	Roof Type:	Colour:

Application Number: «Application Number»

VISITOR ACCOMMODATION

☐ N/A

Gross Floor Area to be used per lot:		Number of Bedrooms to be used:	
Number of Carparking Spaces:		Maximum Number of Visitors at a time:	

SUBDIVISION

☐ N/ASubdivision creating additional lots ☐Boundary adjustment with no additional lots created ☐

Number of Lots (existing) :	1	Number of Lots (proposed) :	2
Description:	2 Lot Subdivision		
If applying for a subdivision which creates a new road(s), please supply three proposed names for the road(s), in order of preference:			
1.			
2.			
3.			

COMMERCIAL, INDUSTRIAL OR OTHER NON-RESIDENTIAL DEVELOPMENT/USE

☐ N/A

Hours of Operation:	Monday / Friday:		To	
	Saturday:		To	
	Sunday:		To	

Existing Car Parking:	
Proposed Car Parking:	

Number of Employees: (Existing)	
Number of Employees: (Proposed)	

Type of Machinery installed:	
Details of trade waste and method of disposal:	

Application Number: «Application Number»

APPLICANT DECLARATION

Owner: As the owner of the land, I declare that the information contained in this application is a true and accurate representation of the proposal and I consent to this application being submitted and for Council Officers to conduct inspections as required for the proposal,

Name (print)

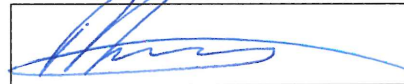
Signed

Date

Applicant: As the applicant, I declare that I have notified the owner of my intention to make this application and that the information contained in this application is a true and accurate representation of the proposal,

(if not the owner)

Name (print)



Signed

Date

Please Note: If the application involves Crown Land you will need to provide a letter of consent and this form signed by the Minister, or a delegated officer of the Crown with a copy of the delegation.

**Crown
Consent**
(if required)

Name (print)

Signed

Date

**Chief
Executive
Officer**
(if required)

Name (print)

Signed

Date

If the subject site is accessed via a right of way, the owner of the ROW must also be notified of the application.

Right of Way Owner:

As the applicant, I declare that I have notified the owner of the land encumbered by the Right Of Way, of my intent to lodge this application that will affect their land.

Name (print)

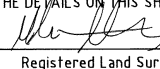
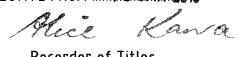
Signed

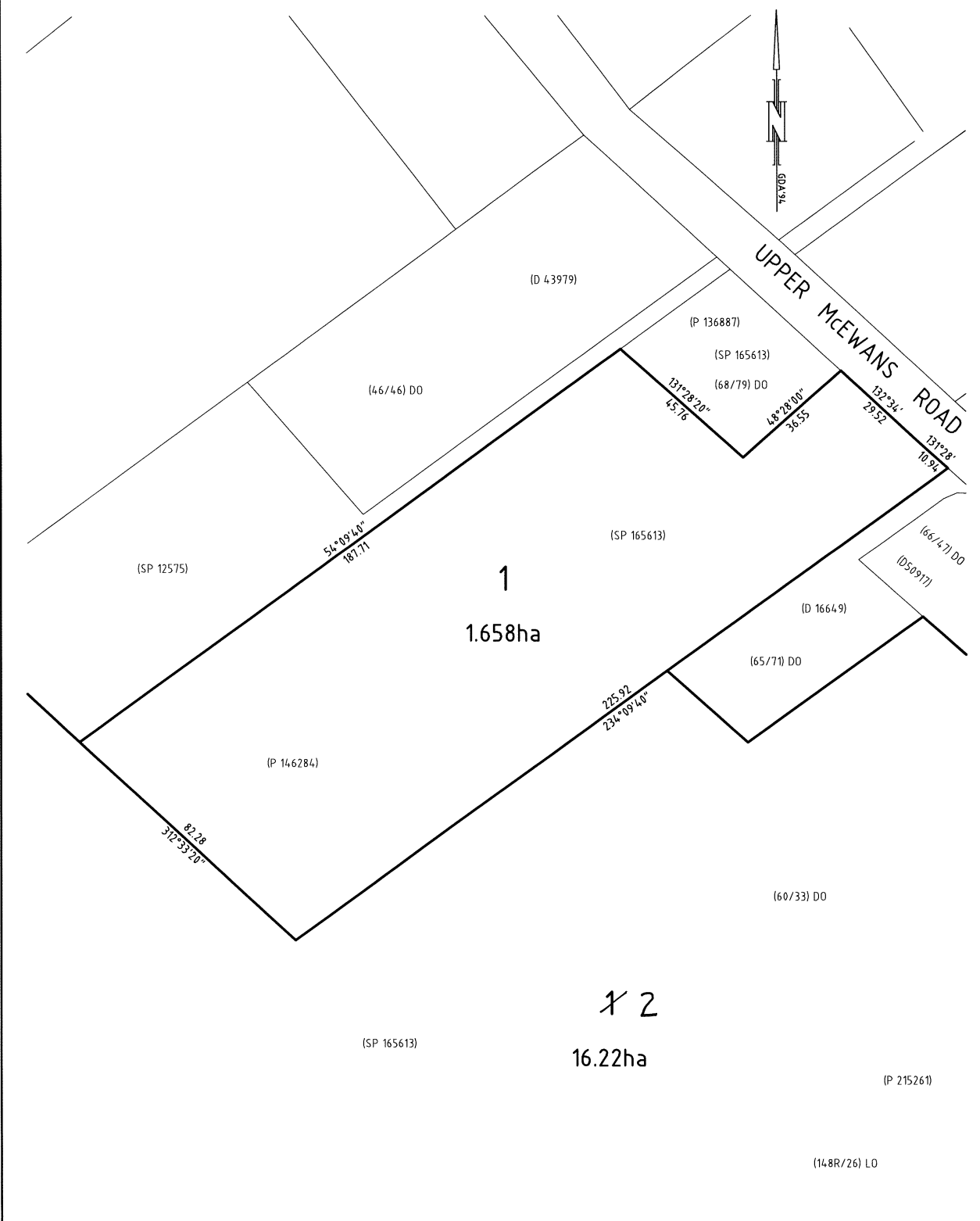
Date

OWNER : CRAGGY RIDGE INVESTMENT CORPORATION PTY. LTD. FOLIO REFERENCE : F.R. 165613/1 & F.R. 215261/1 GRANTEE : PART OF 800 ACRES Gtd. TO JOSIAS McALLAN PART OF LOT 29369 Gtd. TO HERBERT JOSEPH HANCOX		PLAN OF SURVEY BY SURVEYOR MARTIN RALPH HEATLEY of PDA SURVEYORS 3/23 BRISBANE STREET, LAUNCESTON LOCATION LAND DISTRICT OF DEVON PARISH OF SAINT MICHAELS		REGISTERED NUMBER SP174506
		SCALE: 1:3000 LENGTHS IN METRES SURVEYORS REF: L16186		APPROVED EFFECTIVE FROM 19 JAN 2018 <i>Alice Kanao</i> Recorder of Titles
MAPSHEET MUNICIPAL CODE No.	LAST UPI No	LAST PLAN No.	ALL EXISTING SURVEY NUMBERS TO BE CROSS REFERENCED ON THIS PLAN	

INDEX PLAN

[Signature] 2/12/17
 COUNCIL DELEGATE DATE

PLAN OF SURVEY ANNEXURE SHEET SHEET 1 OF 1 SHEET	OWNER : CRAGGY RIDGE INVESTMENT CORPORATION PTY. LTD. FOLIO REFERENCE : F.R. 165613/1 & F.R. 215261/1 SCALE 1:1000 LENGTH IN METRES	Registered Number SP 174506
SIGNED FOR IDENTIFICATION PURPOSES  <u>2/12/17</u> Council Delegate Date	THIS ANNEXURE SHEET FORMS PART OF THE ATTACHED INDEX PLAN. THE SURVEYORS CERTIFICATE EXTENDS TO THE DETAILS ON THIS SHEET  <u>8th Nov 2017</u> Registered Land Surveyor Date	APPROVED EFFECTIVE FROM 19 JAN 2018  <u>Alice Kana</u> Recorder of Titles



UPPER MEWANS ROAD

1
1.658ha

2
16.22ha

(D 43979)

(P 136887)

(SP 165613)

(68/79) DO

131°28'20" 45.76

48°28'00" 36.55

137°28' 10.94

137°34' 29.52

(66/47) DO

(D50917)

(D 16649)

(65/71) DO

(60/33) DO

(P 146284)

54°09'40" 187.71

(SP 12575)

82.28 372°33'20"

(SP 165613)

(P 215261)

(148R/26) LO

SCHEDULE OF EASEMENTS	Registered Number SP 174506
NOTE: THE SCHEDULE MUST BE SIGNED BY THE OWNERS & MORTGAGEES OF THE LAND AFFECTED. SIGNATURES MUST BE ATTESTED.	

PAGE 1 OF 1 PAGE/S

EASEMENTS AND PROFITS

Each lot on the plan is together with:-

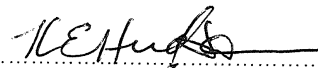
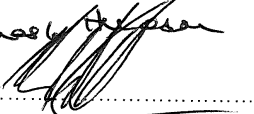
- (1) such rights of drainage over the drainage easements shown on the plan (if any) as may be necessary to drain the stormwater and other surplus water from such lot; and
- (2) any easements or profits a prendre described hereunder.

Each lot on the plan is subject to:-

- (1) such rights of drainage over the drainage easements shown on the plan (if any) as passing through such lot as may be necessary to drain the stormwater and other surplus water from any other lot on the plan; and
- (2) any easements or profits a prendre described hereunder.

The direction of the flow of water through the drainage easements shown on the plan is indicated by arrows.

EXECUTED by Craggy Ridge Investment Corporation Pty Ltd being the registered proprietor of the land comprised in Folios of the Register Volume 165613 Folio 1 and Volume 215261 Folio 1 pursuant to Section 127 of the Corporations Act 2001:


 Director
 Kenneth Gerald Jackson

 Director
 Michael Kenneth Hudson

(USE ANNEXURE PAGES FOR CONTINUATION)

SUBDIVIDER: <u>Craggy Ridge Investment Corp. Pty Ltd</u> FOLIO REF: <u>165613/1 & 215261/1</u> SOLICITOR & REFERENCE: <u>Sproal & Associates, Barry Sproal</u>	PLAN SEALED BY: <u>West Tamar Council</u> DATE: <u>5/12/2017</u> <u>PA2017090</u> REF NO. _____  Council Delegate
NOTE: The Council Delegate must sign the Certificate for the purposes of identification.	



environmental service & design

Environmental Service and Design Pty Ltd

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BUSHFIRE HAZARD REPORT - Version 3

Client – J & L DeDeuge

2 lot Subdivision

**11 Upper McEwans Road
LEGANA TAS**

Author- Bruce Harpley

BFP- 140

10 August 2026

Scope of Assessors Accreditation

Bruce Harpley (BFP-140) is accredited by the Chief Officer of the Tasmania Fire Service under Section 60B of the *Fire Service Act 1979* for scope of works:

1. *Certify a Bushfire Hazard Management Plan for the purposes of the Building Act 2016*
2. *Certify an Exemption from a Bushfire Hazard Management Plan for the purposes of the Building Act 2016 or the Land Use Planning and Approvals Act 1993*
- 3A. *Certify a Bushfire Hazard Management Plan meets the Acceptable Solutions for Vulnerable Uses and Hazardous Uses for the purposes of the Land Use Planning and Approvals Act 1993.*
- 3B. *Certify a Bushfire Hazard Management Plan meets the Acceptable Solutions for small subdivisions for the purposes of the Land Use Planning and Approvals Act 1993.*

Works performed by **Bruce Harpley (BFP-140)** that require Tasmania Fire Service endorsement:

4. *Certify an Emergency Management Strategy or Bushfire Emergency Plan*

Disclaimer

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Bushfires in Tasmania are an unpredictable natural phenomenon and preparing a Bushfire Hazard Management Plan increases your chances of defending your property and assists in the protection the people whom frequent it. This Fire Hazard Management Plan in no way guarantees immunity from a bushfire in or around your property or the effects thereof.

Any measures implemented based on the advice from *Environmental Services and Design Pty Ltd*, is offered as potential methods of reducing your properties risk of fire damage only and is not to be relied upon as a total solution. It in no way guarantees that any or all buildings on site will survive the effects of a bushfire nor does it guarantee the safety and security of any individuals whom frequent the property.

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Re-Certification – Ability to Re-Evaluate

If in the event that the land owner requests a re-assessment of this plan due to a reduced or eliminated bushfire risk in the future; an Accredited Bushfire Assessor can over-ride any or all of the requirements or provisions of this plan. This provision serves to formally expunge any Part 5 Agreement with a Council Planning Authority (if placed on a Title as a condition of Permit) or to reduce the construction standards required under AS3959 *Construction of Buildings in Bushfire Prone Areas* (as amended) if the bushfire risk is reduced to **BAL – LOW** or a threat no longer exists.

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Appendix A – Plan of Subdivision

Appendix B – Hazard Management Plan

Appendix C – Requirements for Property Access and Water Supply

Appendix D – Planning Certificate

1. Introduction

Environmental Services and Design Pty Ltd has been engaged to revise the original bushfire hazard management assessment for a proposed 2 lot subdivision.

The original lot has been rezoned from Agriculture to Rural Living. The change in zoning restricts the proposed subdivision to 2 lots and requires revision of the original bushfire risk assessment report.

The existing dwelling within lot 1 will be used for the assessment. Lot 2 does not show a building area on the plan of subdivision. The 40m x 40m assessed building area for lot 2 and will be created for assessment purposes.

The purpose of this report is to document the assessment, bushfire attack level and associated hazard management areas under the Tasmanian Building Regulations 2016, Tasmanian Planning Scheme – West Tamar Code C13 and AS3959-2018.

2. Site Description

2.1 Property Details

Property Address	11 Upper McEwans Road LEGANA
Certificate of Title	174506/1 PID - 3601258
Type of Application	Subdivision
Area	Lot 1 – 6064m ² , Lot 2 – 1.05ha
Zoning	Rural living
Surrounding Zoning	Agriculture and low density residential
Planning Scheme	Tasmanian Planning Scheme – West Tamar
Existing land Use	Residential
Proposed land use	In accordance with West Tamar Planning Scheme uses



Site Aerial

2.2 Surrounding Land Use

Surrounding land use consists of vineyards and grazing land to the northwest, southwest and southeast with developed low density residential properties with associated dwellings, cultivated gardens and outdoor areas to the northeast, northwest and also southeast of lot 1.

3. Proposed Development

The proposal creates 2 lots from the original lot.

Plan of Subdivision prepared by PDA dated 19 June 2026 is at appendix A.

4. Bushfire Hazard Assessment

A site assessment was carried out on 6 March 2024. Report assessment was conducted on 12 March 2024. Revision of report to incorporate revised plan of subdivision carried out 4 August 2026.

4.1. Vegetation & Effective Slope

Vegetation and relevant effective slopes within 100m of the proposed subdivision building area and existing habitable building has been inspected and classified in accordance with AS 3959-2018.

The vineyards and residential properties containing cultivated gardens were observed as managed in low threat state at time of inspection and are assessed as low threat under AS3959 2.2.3.2.

Lot 1

Vegetation

- NW – grassland 50m then low threat residential for 54m,
- NE – grassland for 59m then low threat residential for 72m,
- SW – grassland for over 100m,
- SE – low threat residential, access and vineyard.

Lot 2

Vegetation

- NW – low threat internal then low threat residential and vineyard for 100m,
- NE – grassland for 100m,
- SW – grassland for 100m,
- SE – low threat access and vineyard.

Topography for all lots

Effective slope under assessable vegetation was assessed as:

- NW – 0° across slope,
- NE – 5-10° downslope,
- SW– upslope,
- SE– 0° across slope,



Image 4.1.1 – view southeast from lot 2



Image 4.1.2 – view northeast across lot 2



Image 4.1.3 view southeast from lot 2 - grassland



Image 4.1.4 view Northwest from lot 2 – low threat



Image 4.1.5 grassland – view southwest from lot 2



Image 4.1.6 grassland – view northeast from lot 1 dwelling



Image 4.1.7 – Site Analysis

4.2. Bushfire Attack Level - Lot 1

A Bushfire Attack Level assessment has been completed using Method 1 of AS 3959-2018. Assessment relates to the subdivision.

Step 1: Relevant fire danger index (clause 2.2.2): FDI 50

Step 2: Assess the vegetation within 100m in all directions

Vegetation Classification	NW	NE	SW	SE
Group A - Forest				
Group B – Woodland				
Group C – Shrubland				
Group D – Scrub				
Group E – Mallee/Mulga				
Group F – Rainforest				
Group G – Grassland	X	X	X	
Low threat (cl. 2.2.3.2)	X	X		X

Step 3: Distance from classified vegetation (clause 2.2.4)

	NW	NE	SW	SE
Existing distance	0-50m Grassland 50-100m Low threat	0-59m Grassland 59-100m	0-100m	0-100m
Proposed HMA distance	14m	19m	14m	To boundary

Step 4: Effective slope under classified vegetation

	NW		NE		SW		SE	
	Upslope/0	X	Upslope/0		Upslope/0	X	Upslope/0	X
	>0-5°		>0-5°		>0-5°		>0-5°	
	>5-10°		>5-10°	X	>5-10°		>5-10°	
	>10-15°		>10-15°		>10-15°		>10-15°	
	>15-20°		>15-20°		>15-20°		>15-20°	

Step 5: Determination of Bushfire Attack Level (BAL)

	NW	NE	SW	SE
BAL value for each quadrant	12.5	12.5	12.5	12.5

The applicable Bushfire Attack Level is: **BAL – 12.5**

Bushfire Attack Level - Lot 2

A Bushfire Attack Level assessment has been completed using Method 1 of AS 3959-2018. Assessment relates to the subdivision.

Step 1: Relevant fire danger index (clause 2.2.2): FDI 50

Step 2: Assess the vegetation within 100m in all directions

Vegetation Classification	NW	NE	SW	SE
Group A - Forest				
Group B – Woodland				
Group C – Shrubland				
Group D – Scrub				
Group E – Mallee/Mulga				
Group F – Rainforest				
Group G – Grassland		X	X	
Low threat (cl. 2.2.3.2)	X			X

Step 3: Distance from classified vegetation (clause 2.2.4)

	NW	NE	SW	SE
Existing distance	0-100m	0-100m	0-100m	0-100m
Proposed HMA distance	14m	19m	14m	14m

Step 4: Effective slope under classified vegetation

	NW		NE		SW		SE	
	Upslope/0°	X	Upslope/0°		Upslope/0°	X	Upslope/0°	X
	>0-5°		>0-5°		>0-5°		>0-5°	
	>5-10°		>5-10°	X	>5-10°		>5-10°	
	>10-15°		>10-15°		>10-15°		>10-15°	
	>15-20°		>15-20°		>15-20°		>15-20°	

Step 5: Determination of Bushfire Attack Level (BAL)

	NW	NE	SW	SE
BAL value for each quadrant	12.5	12.5	12.5	12.5

The applicable Bushfire Attack Level is: **BAL – 12.5**

5. Bushfire Protection Measures

The Bushfire Attack Level assessment is based on the existing dwelling within lot 1 and the assessable building area of 40m x 40m for lot 2. The Bushfire Attack Level for all lots is assessed as **BAL 12.5**.

Hazard management

Lot 1 - A Hazard Management Area must be established and maintained as shown on the Hazard management plan drawing at appendix B to the building surveyor's satisfaction and maintained by the owner thereafter.

Lot 2 - Hazard management area is not required until such time as a habitable building is constructed.

- If a future habitable building is constructed within the assessed building area within the lot a Hazard Management Area must be established and maintained as shown on the Hazard management plan drawing at appendix B to the building surveyor's satisfaction and maintained by the owner thereafter.

Hazard Management Distances

	Lot 1	Lot 2
Northwest	14m	14m
Northeast	19m	19m
Southwest	14m	14m
Southeast	To boundary	14m

Water Supply**Lot 1**

- The property has Tas water reticulated hydrants in the area located along Upper McEwans Road.
- The hose lay from the existing dwelling within lot 1 to the fire hydrant to the northwest of the property was measured at 110m.
- Reticulated water supply for firefighting purposes meets the requirements of Table C13.4 of Bushfire Prone Areas Code C13.



Image 5.1 – Hydrant located northwest on Upper McEwans Road

Lot 2

Water supply is not required until a habitable building is constructed.

If a future habitable building is constructed within the assessed building area of the lot the following is required.

- Lot 2 assessed building area is are not within a hose lay of 120m of a reticulated hydrant.
- A static water supply for firefighting purposes is required for lot 2 and must meet the requirements of Table C13.5 of Bushfire Prone Areas Code C13.
- A potential location for the firefighting water tank is shown on Hazard Management Plan drawing 9215-2.
- The potential static water supply firefighting water point is located within 90m of the furthest part of the building to be protected measured as a hose lay.
- Static water supply must be located within 3m of the access with the hardstand area and no less than 6m from the dwelling.
- Static water supply must be a minimum of 10,000L of noncombustible construction.
- Static water supply has the capacity to meet the requirements of Table C13.5 of Bushfire Prone Areas Code C13.
- Static water supply requirements are included in Appendix D.

Access

Lot 1

Access to the property is not required to access a water point.

There are no specific design and construction requirements under Table C13.2 of Bushfire Prone Areas Code C13.

Lot 2

Access is not required until a habitable building is constructed.

If a future habitable building is constructed within the assessed building area of the lot, the following is required.

- Access to the property is required to access a firefighting water point.
- Access must be constructed with a minimum width of 4m of all-weather construction with 500mm clearance either side of carriageway terminating in a turning head/ area.
- Potential access and turning area is shown on the hazard management plan.
- Access length to the potential water point and turning head is less than 200m and a passing bay is not required.
- The access for lot 2 is a minimum 7.2m in width and has the capacity to contain a compliant access as well as passing bays if required.
- Access must comply with the requirements of Table C13.2 of Bushfire Prone Areas Code C13.
- Property access requirements are included in Appendix D.

6. Statutory Compliance

The applicable bushfire requirements are specified in the *Tasmanian Planning Scheme – West Tamar Code C13 – Bushfire Prone Areas Code*.

Table 1 – Compliance Schedule

Deemed-to-Satisfy requirement	Compliance
C13.4.1 Exemptions	N/A
C13.6.1 Hazard management areas	Subject to implementing the hazard management area prescribed on the Bushfire Hazard Management Plan, the proposal will comply with clause C13.6.1 A1(b).
C13.6.2 Property access	Subject to the construction of the access as prescribed in section 5 access the proposal will comply with clause C13.6.2 A1(b)
C13.6.3 Water supply for firefighting	Subject to installation of the static water supply for firefighting for lots 2 and 3 as prescribed in section 5, the proposal will comply with clause C13.6.3 A2(b).

7. Conclusion

The 40m x 40m building area shown on the hazard management plan for Lot 2 is for assessment purposes only.

A bushfire hazard management plan is required and attached as appendix B. This Bushfire Hazard Report must be read in conjunction with the bushfire hazard management plan.

The requirements of the hazard management plan for lot 1 must be fully implemented prior to sealing of the final plans.

The proposal has the capability to meet the requirements of the Tasmanian Planning Scheme – West Tamar Code C13 – Bushfire Prone Areas Code and AS3959-2018 for **BAL 12.5** for both lots.



2. The entirety of the site is covered by Bushfire and Landslip overlay and not shown for clarity.

E					NOTES:	SURVEYOR N/A	GEOCIVIL N/A	PLAN OF SUBDIVISION 11 Upper McEwan Road, Legana FR 174506/1 Leigh & Josephine De Deuge	 PDA SURVEYORS, ENGINEERS & PLANNERS	3/23 Brisbane Street, Launceston, Tasmania, 7250 PHONE: +61 03 6331 4099 EMAIL: pda.ltn@pda.com.au www.pda.com.au Also at: Hobart, Burnie, Devonport, Swansea & Huonville	SCALE	PAPER
D						DRAWN AB	CHECKED LK				1:800	(A3)
C						DATE 19th of June 2026					JOB NUMBER 56087 - DA01(b)	DRAWING 56087 - DA01(b)
B	INCLUSIONS OF DRAINS AND SEPTIC SYSTEM	AB	21/09/26	AB								
A	CHANGES TO LOT SIZE	AB	19/06/26	AB								
REV	AMENDMENTS	DRAWN	DATE	APPR.								

Appendix B – Hazard Management Plan



- LEGEND**
- Hazard Management Area
 - Fire Hydrant
 - Static Water Supply

Maintenance prior to the onset of each fire season

- Guttering on all habitable structures must be inspected and cleared of debris annually
- Ensure all hoses and brass connections are in good working order
- All valley and wall/roof junctions are inspected and debris removed
- Roof sheeting inspected for damages or dislodged roofing materials (replace if necessary)
- Painted surfaces are in good condition and decaying timbers given particular attention to repair
- Screens/shutters on windows and doors are in good working condition and fit well without breaks, holes or tears,
- Door mats to be of non-combustible materials

Woodpiles, garden sheds and other combustible materials to be kept well away from habitable structures.

General

- Plan to be read in conjunction with Bushfire Hazard Assessment Report v1.0
- Ensure that all relevant consultants and contractors are provided with a full copy of this plan and supporting report
- Requirements of the hazard management plan must be implemented prior to sealing of the final plan of subdivision and maintained by the owner thereafter.

General Notes

Design and Construction

- Assessed building area design and construction must conform to **BAL – 12.5** minimum specifications under AS3959:2018

Hazard Management (HMA)

- It is the responsibility of the landowner to maintain the landscaping in accordance with the Bushfire Hazard Management Plan
- Establish hazard management area for whole site as shown on the Bushfire Hazard Management Plan.
- Ensure fuels are reduced sufficiently & other hazards are removed such that the fuel & other hazards do not significantly contribute to the bushfire attack
- The hazard management area is to be regularly maintained and managed and in particular between the months of September and March in each calendar year.
- Landscaping in the HMA is to be minimised with grass maintained to a maximum height of 100mm
- Pathways and landscaping material surrounding any habitable structures must be of non-combustible elements for a minimum of 1m from any external walls or decks
- To be established prior to occupancy

Appendix C Table C13.2: Standards for Property Access

Column 1		Column 2
Element		Requirement
A.	Property access length is less than 30 metres, or access is not required for a fire appliance to access a firefighting water point.	There are no specified design and construction requirements.
B.	Property access length is 30 metres or greater, or access is required for a fire appliance to access a firefighting water point.	The following design and construction requirements apply to property access: (a) all-weather construction; (b) load capacity of at least 20 tonnes, including for bridges and culverts; (c) minimum carriageway width of 4 metres; (d) minimum vertical clearance of 4 metres; (e) minimum horizontal clearance of 0.5 metres from the edge of the carriageway; (f) cross falls of less than 3 degrees (1:20 or 5%); (g) dips less than 7 degrees (1:8 or 12.5%) entry and exit angle; (h) curves with a minimum inner radius of 10 metres; (i) maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18%) for unsealed roads; and (j) terminate with a turning area for fire appliances provided by one of the following: (i) a turning circle with a minimum outer radius of 10 metres; (ii) a property access encircling the building; or (iii) a hammerhead “T” or “Y” turning head 4 metres wide and 8 metres long.
C.	Property access length is 200 metres or greater.	The following design and construction requirements apply to property access: (a) complies with requirements for B above; and (b) passing bays of 2 metres additional carriageway width and 20 metres length provided every 200 metres.
Column 1		Column 2
D.	Property access length is greater than 30 metres, and access is provided to 3 or more properties.	The following design and construction requirements apply to property access: (a) complies with requirements for B above; and (b) passing bays of 2 metres additional carriageway width and 20 metres length must be provided every 100 metres.

Table C13.5: Static Water Supply for Fire Fighting

Column 1		Column 2
Element		Requirement
A.	Distance between building area to be protected and water supply	The following requirements apply: (a) the building area to be protected must be located within 90 metres of the firefighting water point of a static water supply; and (b) the distance must be measured as a hose lay between the firefighting water point and the furthest part of the building area.
B.	Static water supplies	A static water supply: (a) may have a remotely located offtake connected to the static water supply; (b) maybe a supply for combined use (firefighting and other uses), but the specified minimum quantity of firefighting water must be available at all times; (c) must be a minimum of 10,000 litres per building area to be protected. This volume of water must not be used for any other purpose, including firefighting sprinkler or spray systems; (d) must be metal, concrete or lagged by non-combustible materials if above ground; and (e) if a tank can be located, so it is shielded in all directions in compliance with Section 3.5 of AS 3959, the tank may be constructed of any material provided that the lowest 400 mm of the tank exterior is protected by: (i) metal; (ii) non-combustible material; or (iii) fibre-cement a minimum of 6 mm thickness.
C.	Fittings, pipework and accessories (including stands and tank supports)	Fittings and pipework associated with a firefighting water point for a static water supply must: (a) have a minimum nominal internal diameter of 50mm; (b) be fitted with a valve with a minimum nominal internal diameter of 50mm; (c) be metal or lagged by non-combustible materials if above ground; (d) if buried, have a minimum depth of 300mm;

Column 1		Column 2
Element		Requirement
		(e) provide a DIN or NEN standard forged Storz 65 mm coupling fitted with a suction washer for connection to firefighting equipment; (f) ensure the coupling is accessible and available for connection at all times; (g) ensure the coupling is fitted with a blank cap and securing chain (minimum 220mm length); and (h) ensure underground tanks have either an opening at the top of not less than 250mm diameter or a coupling compliant with this Table; and (i) where a remote offtake is installed, ensure the offtake is in a position that is: (i) visible; (ii) accessible to allow connection by firefighting equipment; (iii) at a working height of 450mm – 600mm above ground level; and (iv) protected from possible damage, including damage by vehicles.
D.	Signage for static water connections	The firefighting water point for a static water supply must be identified by a sign permanently fixed to the exterior of the assembly in a visible location. The sign must: (a) comply with water tank signage requirements within AS 2304; or (b) comply with the TFS Water Supply Signage Guideline.
E.	Hardstand	A hardstand area for fire appliances must be provided: (a) no more than three metres from the firefighting water point measured as a hose lay (including the minimum water level in dams, swimming pools and the like); (b) no closer than six metres from the building area to be protected; (c) a minimum width of three metres constructed to the same standard as the carriageway; and (d) connected to the property access by a carriageway equivalent to the standard of the property access.

BUSHFIRE-PRONE AREAS CODE

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

1. Land to which certificate applies

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

Street address: 11 Upper McEwans Road Legana

Certificate of Title / PID: CT - 174506/1 PID - 3601258

2. Proposed Use or Development

Description of proposed Use and Development: Subdivision – existing lot to create 2 lots. Lot 1 containing existing dwelling

Applicable Planning Scheme: Tasmanian Planning Scheme – West Tamar

3. Documents relied upon

This certificate relates to the following documents:

Title	Author	Date	Version
Plan of Subdivision (305271 P01)	PDA	19/06/2026	A
Bushfire Hazard Report	Bruce Harpley BFP-140	10/08/2026	3
Hazard Management Plan	Bruce Harpley BFP-140	11/08/2026	3

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)	Insufficient increase in risk

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

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

☒	E1.6.1 / C13.6.1 Subdivision: Provision of hazard management areas	
	Acceptable Solution	Compliance Requirement
☐	E1.6.1 P1 / C13.6.1 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>
	E1.6.1 A1 (a) / C13.6.1 A1(a)	Insufficient increase in risk (Lot 2)
☒	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)	Consent for Part 5 Agreement

☒	E1.6.2 / C13.6.2 Subdivision: Public and fire fighting access	
	Acceptable Solution	Compliance Requirement
☐	E1.6.2 P1 / C13.6.2 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>
☐	E1.6.2 A1 (a) / C13.6.2 A1 (a)	Insufficient increase in risk (lot 2)
☒	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)	Insufficient increase in risk
☒	E1.6.3 A1 (b) / C13.6.3 A1 (b)	Reticulated water supply complies with relevant Table (lot 1)
☐	E1.6.3 A1 (c) / C13.6.3 A1 (c)	Water supply consistent with the objective
☐	E1.6.3 A2 (a) / C13.6.3 A2 (a)	Insufficient increase in risk
☒	E1.6.3 A2 (b) / C13.6.3 A2 (b)	Static water supply complies with relevant Table (lot 2)
☐	E1.6.3 A2 (c) / C13.6.3 A2 (c)	Static water supply consistent with the objective

5. Bushfire Hazard Practitioner

Name: Bruce Harpley

Phone No: 0429 355 259

Postal Address:

Environmental Service and Design Pty Ltd
PO Box 231
WYNYARD TAS 7325

Email Address:

bharpley@esandd.com.au

Accreditation No:

BFP – 140

Scope:

1, 2, 3A and 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.

Signed:
certifier



Name:

Bruce Harpley

Date:

11/08/2026

Certificate
Number:

9215-3

(for Practitioner Use only)



PLAN OF SUBDIVISION

Owners
LEIGH & JOSEPHINE DE DEUGE

Title References
FR 174506/1

Address
11 Upper McEwan Road, Legana

Council
West Tamar Council

Tasmanian Planning scheme
Tasmanian Planning Scheme - West Tamar

Zone
11.0 Rural Living A with SSQ

Code Overlay Name
C13.0 Bushfire-Prone Areas
C15.0 Landslip Hazard Code

Schedule of Easements
Nil.

NOTES

- This plan has been prepared only for the purpose of obtaining preliminary subdivision approval from the Council and the information shown hereon should be used for no other purpose. All measurements and areas are subject to final survey.
- The entirety of the site is covered by Bushfire and Landslip overlay and not shown for clarity.

E					NOTES:	SURVEYOR	GEOCIVIL	PLAN OF SUBDIVISION 11 Upper McEwan Road, Legana FR 174506/1 Leigh & Josephine De Deuge	 3/23 Brisbane Street, Launceston, Tasmania, 7250 PHONE: +61 03 6331 4099 EMAIL: pda.ltn@pda.com.au www.pda.com.au Also at: Hobart, Burnie, Devonport, Swansea & Huonville	SCALE	PAPER
D						N/A	N/A			1:800	(A3)
C						DRAWN	CHECKED			JOB NUMBER	DRAWING
B	INCLUSIONS OF DRAINS AND SEPTIC SYSTEM	AB	21/09/26	AB		AB	LK			56087 - DA01(b)	56087 - DA01(b)
A	CHANGES TO LOT SIZE	AB	19/06/26	AB		DATE	19th of June 2026				
REV	AMENDMENTS	DRAWN	DATE	APPR.							

CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form **55**

To: Leigh De Deuge Owner /Agent
11 Upper McEwans Road Address
Legana 7277 Suburb/postcode^a

Qualified person details:

Qualified person: Dr Jacobus (Wayne) Griffioen
Address: 16 Herbert Street Phone No: 6338 2398
Invermay 7248 Fax No:
Licence No: CC6711 Email address: wayne@tasmangeotechnics.com.au

Qualifications and Insurance details: (description from Column 3 of the Director's Determination - Certificates by Qualified Persons for Assessable Items)

Speciality area of expertise: Geotechnical Report (description from Column 4 of the Director's Determination - Certificates by Qualified Persons for Assessable Items)

Details of work:

Address: 11 Upper McEwans Road Lot No: 1
Legana 7277 Certificate of title No: 174506
The assessable item related to this certificate: Landslide Risk Assessment (description of the assessable item being certified)
Assessable item includes –
- a material;
- a design
- a form of construction
- a document
- testing of a component, building system or plumbing system
- an inspection, or assessment, performed

Certificate details:

Certificate type: Landslide Risk Assessment (description from Column 1 of Schedule 1 of the Director's Determination - Certificates by Qualified Persons for Assessable Items n)

This certificate is in relation to the above assessable item, at any stage, as part of - (tick one)

building work, plumbing work or plumbing installation or demolition work: ☒

or

a building, temporary structure or plumbing installation: ☐

In issuing this certificate the following matters are relevant –

Documents:

Tasman Geotechnics report – TG6151/1 - 01report, dated 03 August 2026

Relevant
calculations:

None

References:

Australian Geomechanics Society "Practice note guidelines for landslide risk management" 2007

Substance of Certificate: (what it is that is being certified)

Landslide risk assessment

Scope and/or Limitations

See section 6 of report TG26151/1-01report

I certify the matters described in this certificate.

Qualified person:

Signed:



Certificate No:

TG26151/1– 02Form55 for
LRA

Date:

03/08/2026



**LANDSLIDE RISK ASSESSMENT
PROPOSED SUBDIVISION
11 UPPER MCEWANS ROAD, LEGANA**

Prepared for: **Leigh De Deuge**

Date: 03 August 2026

Document Reference: TG26151/1 - 01report

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- Figure 2 MRT Landslide Inventory Map Extract
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- Appendix A Engineering Borehole Logs
- Appendix B Site Photographs
- Appendix C Landslide Risk Matrix
- Appendix D Risk to Life
- Appendix E Guidelines to Hillside Construction

Version	Date	Prepared by	Reviewed by	Distribution
Original	03 August 2026	Nevil Vanderslink	Dr Wayne Griffioen	Electronic

1 INTRODUCTION

Tasman Geotechnics was commissioned by Leigh De Deuge to carry out a Landslide Risk Assessment for a proposed subdivision at 11 Upper McEwans Road, Legana (title reference 174506/1).

A geotechnical report was previously prepared for a proposed three-lot subdivision at the site (Report Reference TG23258/1 – 01report Rev01, dated 24 July 2024). Since that time, the subdivision layout has been revised to a two-lot subdivision, which forms the basis of the current assessment and supersedes the previous development proposal.

The location of the proposed subdivision title boundaries was shown on a site plan provided by the client.

The assessment is required as the site is mapped within “Low” and “Medium” hazard bands on the Landslide Planning Map V2 – Hazard Bands overlay on The LIST.

Our scope of work consisted of:

- Reviewing available maps and reports;
- Carrying out a site walkover to note geomorphological features associated with landslide activity;
- Drilling of five boreholes (BH1 to BH5) to determine subsurface conditions;
- Conducting a Landslide Risk Assessment.

The assessment is consistent with the Landslide Risk Assessment guidelines published by the Australian Geomechanics Society (2007).

2 BACKGROUND INFORMATION

2.1 Planning Scheme

The Tasmanian Planning Scheme is effective in the West Tamar municipality since 9 February 2022. Clause C15.7 addresses Development Standards for Subdivision. The objective for subdivision within a landslip hazard area is:

That subdivision within a landslip hazard area does not create an opportunity for use or development that cannot achieve a tolerable risk from a landslip.

The acceptable solutions are that:

Each lot, or a lot proposed in a plan of subdivision, within a landslip hazard area, must:

- (a) be able to contain a building area, vehicle access, and services, that are wholly located outside a landslip hazard area;*
- (b) be for the creation of separate lots for existing buildings;*
- (c) be required for public use by the Crown, a council or a State authority; or*
- (d) be required for the provision of Utilities.*

In this instance the acceptable solutions cannot be satisfied, given that the entire existing site is within a landslip hazard area. Accordingly, it is not possible to identify areas for buildings, vehicle accesses and services that are wholly located outside a landslip hazard area.

The performance criteria state that:

Each lot, or a lot proposed in a plan of subdivision, within a landslip hazard area must not create an opportunity for use or development that cannot achieve a tolerable risk from landslip, having regard to:

- (a) *any increase in risk from a landslide for adjacent land;*
- (b) *the level of risk to use or development arising from an increased reliance on public infrastructure;*
- (c) *the need to minimise future remediation works;*
- (d) *any loss or substantial compromise, by a landslide, of access to the lot on or off site;*
- (e) *the need to locate building areas outside the landslide hazard area;*
- (f) *any advice from a State authority, regulated entity or a council; and*
- (g) *the advice contained in a landslide hazard report.*

Clause C15.6.1 of the planning scheme stipulates that the objective for building and works within a landslide hazard area is:

“That building and works on land within a landslide hazard area can:

- (a) minimise the likelihood of triggering a landslide event; and*
- (b) achieve and maintain a tolerable risk from a landslide.”*

There are no acceptable solutions.

The performance criteria state that:

P1.1

Building and works within a landslide hazard area must minimise the likelihood of triggering a landslide event and achieve and maintain a tolerable risk from landslide, having regard to:

- (a) the type, form, scale and intended duration of the development;*
- (b) whether any increase in the level of risk from a landslide requires any specific hazard reduction or protection measures;*
- (c) any advice from a State authority, regulated entity or a council; and*
- (d) the advice contained in a landslide hazard report.*

P1.2

A landslide hazard report also demonstrates that the buildings and works do not cause or contribute to landslide on the site, on adjacent land or public infrastructure.

P1.3

If landslide reduction or protection measures are required beyond the boundary of the site the consent in writing of the owner of that land must be provided for that land to be managed in accordance with the specific hazard reduction or protection measures.

A tolerable risk is one which is tolerable both in terms of risk to property and risk to life.

Although tolerable levels of risk for property loss are rarely quoted in literature, AGS (2007d) suggests a Moderate risk profile as a tolerable level of risk for low-rise residential buildings on existing slopes as well as existing landslides.

AGS (2007c) suggests the tolerable loss of life individual risk should be 10^{-5} /annum for new constructed slopes, new development, or existing landslide, and 10^{-4} /annum for existing slopes or existing development.

For the proposed development, the following tolerable levels of risk are adopted;

- Risk to property: Moderate,
- Risk to life: 10^{-5} /annum.

2.2 Regional Setting

The site is located within the central part of the Tamar Graben, a narrow (~5km wide) but elongated (~60km long) north-west/south-east trending basin occupied by the Tamar River. The basin contains a relatively thick sequence of poorly consolidated Cenozoic-aged sediments and basalt, generally overlying a Jurassic-aged dolerite basement. The dolerite is exposed on the flanks of the central axis of the basin as a series of stepped discontinuous ridges, separated by areas of shallower Cenozoic and/or Quaternary deposits.

Within this regional setting, the site sits on the north-east facing flank of an elevated basalt-capped plateau (Grindelwald), located on the western side of the Tamar River. The edges of the plateau are very steep, while the mid and lower slopes are flatter, terminating at the Tamar River. The plateau rises to an elevation of about 190m AHD and the site is located in the mid-third of the slope, between about 60m and 90m AHD.

Landslides – both ancient and modern – occur on the plateau flanks and most of the lower slopes are mantled with landslide deposits and/or talus. The nearest exposures of Jurassic dolerite basement are to the south and west of the basalt plateau, about 1.5km from the site.

2.3 Geology

The Mineral Resources Tasmania (MRT) 1:25,000 Series Digital Geological map, Dilston Sheet, shows that the surface geology of the site is mapped as Quaternary-aged deposits, described as "*Basalt talus*". The plateau crest is located about 250m to the west of the western boundary of the site, and is mapped as Cenozoic-aged "*Basanitic dolerite*".

An extract of the MRT geology map is presented in Figure 1.

2.4 Landslide Mapping

The Windermere Landslide Inventory Map shows that western half of the site (including the majority of proposed Lot 2) is located on a large landslide of unknown activity state (ID 4719). The landslide measures approximately 350m long (from head scarp to toe) and 900m wide, and is one of a complex series of older landslides that wrap around the southern and eastern flanks of the plateau, forming a contiguous zone more than 4km long.

The mapped landslide complex includes several recent or active landslides, predominantly located on the banks of Muddy Creek and its' tributaries at Grindelwald to the southwest and southeast of the site, and the banks of Tamar River at Rosevears to the northwest to northeast of the site.

Two recent or active landslides are mapped about 400m to the southeast of the site (ID 2038 & 4722). Both are located on cut slopes above West Tamar Highway. A landslide damage point (ID 353) is mapped closer to the site, about 60m to the southeast. The damage point is recorded as minor landslide-related damage to Upper McEwans Road, occurring before 2005.

An extract of the Landslide Inventory Map is presented in Figure 2.

Susceptibility zones for first time failures were developed by MRT by statistical analysis of slope geometry and geological material of known landslides, and are mapped as possible source, regression and runout areas associated with potential landslide movement. For Cenozoic-aged sediments, threshold values of source, regression and runout areas are 7°, 7° and 8° respectively.

The Windermere Landslide Susceptibility Map shows that the western third of proposed Lot 1 is located on a potential regression area and the remainder of the lot to the east of this is located on a potential source area. Proposed Lot 2 is located on a potential source, runout and regression areas, excluding a small portion at the western end which is not located on a mapped susceptibility area.

An extract of the MRT Slide Susceptibility map is presented on Figure 3.

2.5 Previous Reports

A search on the MRT website for previous investigations at or near the site revealed a large number of studies pertaining to slope stability assessments within the Tamar Valley with three reports are directly relevant to the site.

Stevenson (1971) reported on a proposed subdivision at 53 Rosevears Drive, approximately 200m east of the site. Stevenson reported that:

“Most of the proposed subdivision lies on clays of the Launceston Beds, and near the top of the slope some thin gravel and deeply weathered basalt may be observed”.

“No slipping was apparent in the area, but dormant slips are probably present on the other side of McEwans Lane [Road]”.

The report concluded that *“In view of the steep slopes and the presence of clays this land cannot be recommended for subdivision.*

Knights (1977a) investigated the toe area of an old landslip at McEwans Road. The investigation was conducted to the northeast of the site and included the drilling of 7 boreholes. The nearest of these boreholes (“BH5”) was drilled about 300m to the northeast of the site and penetrated to 9.8m below ground level encountering clays to termination depth. The investigation noted that (within the landslide):

“The sediments dip downslope and there is a subsurface layer of soft to semi-liquid material which indicates a previous slip plane”.

“In these soft materials saline water under a high piezometric head reduces the effective frictional strength of the clay. Stability analysis indicates that stability of the site is very tenuous”.

A cross-section included in the report indicates a basal slip plane passing through boreholes BH8, BH6, BH4 and BH9 but not extending upslope to BH5.

Knights (1977b) reported on piezometric measurements in Cenozoic-aged lacustrine sediments in the Tamar Valley, which included measurements on some of the boreholes drilled as part of the McEwans Road landslide investigation (Knights, 1977a). The most relevant borehole, BH5, encountered an aquifer at 7.3m below ground level which responded slowly to rainfall. Based on 2013 LIDAR data and the reported location of BH5, the collar elevation of BH5 was estimated to be approximately 22.3m (AHD), placing the aquifer at about 15m (AHD).

2.6 Proposed Development

The proposed development involves the subdivision of the ~1.66ha site into two separate lots, the location of which were shown on a site plan provided by the client. Proposed Lot 1 (approximately 0.61ha) is located at the eastern end of the site, and currently contains an existing dwelling, outbuildings and surrounding gardens and grassed paddocks. Proposed Lot 2 (approximately 1.05ha) occupies the remainder of the site to the west of proposed Lot 1 and is currently a vacant grassed paddock.

It is our understanding that future proposed dwellings on each lot will require onsite wastewater disposal systems.

The design life of the new dwellings is taken to be 50 years.

3 FIELD INVESTIGATION

The fieldwork was carried out by a Senior Engineering Geologist and two Geotechnicians from Tasman Geotechnics over two separate visits on 6th and 8th December 2023. The fieldwork involved a site walkover to note geomorphic features potentially relevant to landslide activity, and drilling of five boreholes (BH1 to BH5), to the termination depths of 2.05m, 3.7m, 2.0m, 5.1m, and 4.2m below ground level respectively, using a 4WD-mounted Eziprobe drill rig.

The borehole logs are presented in Appendix A and the borehole locations are shown on Figure 4. Selected site photographs are presented in Appendix B.

Six soil samples were analysed by Tasman Geotechnics for Atterberg Limits and particle size distribution. The results are presented in Section 4.3.

4 RESULTS

4.1 Surface Conditions

The ~1.66ha site is located on the northeast facing flank of the Grindelwald plateau, with the crest of the plateau approximately 430m to the southwest of the western boundary of the site and the Tamar River located about 500m to the northeast of the eastern boundary of the site.

The overall topography of the site is undulating, with the slope angles ranging from relatively level to about 15° towards the northeast, however the average fall of the site is about 8°. The slope steepens on the upper slopes of the plateau directly to the southwest of the site, with slope angles of up to about 30°. To the northeast of the site, the slope flattens to about 5° towards West Tamar Highway, before steepening to ~7-12° towards the Tamar River.

The existing house, located on proposed Lot 1 is accessed from Upper McEwans road via an asphalt and concrete driveway. Cracking was observed in parts of the driveway; however, this appears to be typical of the age of the driveway and normal shrink-swell movement in the expansive soils rather than landslide-related movement. The existing house is brick construction with a clay tile roof. The precise age of the house is unknown, but it appears in an aerial photo from 1977 and is therefore at least 47 years old. Some cracking was observed in the brickwork of the house, up to about 2mm in width. It is not clear whether this movement can be attributed to landsliding or the age and construction of the house.

Two existing aluminium sheds and a carport frame are located to the southwest of the dwelling and all appear to be in good condition.

The yard surrounding the house consists of garden beds and lawn. A landscape retaining wall composed of basalt cobbles and concrete and up to 0.6m in height is located in the front yard to the northeast of the house and is in good condition with no significant cracking or leaning. Table drains both lined and unlined border the yard and driveway, and culverts divert runoff under parts of the driveway. Unlined sections of the driveway table drains are eroded in some parts.

The remaining area of proposed Lot 1 is unoccupied and consists of grassed paddocks. Minor cracking was observed in the surface soils which can be attributed to the expansive nature of the soils.

Proposed Lot 2 is currently vacant and consists of grassed paddocks. Cracking was also observed in the surface soils due to the expansive soils. Water troughs are located in the paddocks and are supplied via buried pipes (25mm diameter polypipe). The owner reported a significant decrease in water costs when the water faucet was turned off, indicating that the system may be leaking. The 2016 Google Earth image shows a long green stain in the paddock from a point source along the southern boundary, where the rest of the area is brown. The green stain is absent in more recent aerial images.

No surface water or seepage was observed on any of the proposed lots and the site as a whole appears to be well drained. A dam is located on the neighbouring property (5 Upper McEwans Road), about 20m to the southwest (upslope) of south-western boundary of proposed Lot 2. Based on aerial photographs, the dam was constructed towards the end of 2018. Overflow pipes are not visible; however, a possible spillway is located in the southwest corner of the dam and directs overflow towards the southeast and east, away from the site. It is not known if the dam is spring/groundwater fed, filled by pumping, or fed by surface runoff. Based on our observations, it appears that the dam is fed by surface runoff and is most likely used for irrigation purposes.

A natural drainage gully is located to the southwest of the site and drains toward the existing neighbouring dwelling at 15 Upper McEwans Road directly west of proposed Lot 2. It is unclear where the runoff is diverted on the neighbouring property, but cutoff drains direct some of the runoff towards the dam and also along the south-western and southern-eastern boundary of the site to the existing driveway drain. Abundant water-loving reeds surround the drainage gully on the neighbouring property near the northwestern corner of proposed Lot 2, indicating that the

area may be regularly wet. Young trees have recently been planted directly upslope of this area which will assist with evapotranspiration and stabilisation of the hillslope.

The existing sealed road surface of Upper McEwans Road is in good condition with only minor cracking observed in some parts. The road cutting near the north-eastern boundary of proposed Lot 1 is up to 0.7m in height and is good condition with no visible slumping or failure.

No evidence of recent or active landslide movement was observed at the site. While the topography of the site is consistent with that of a displaced mass, it is likely that the landslide is old and currently inactive.

4.2 Subsurface Conditions

The boreholes encountered similar subsurface conditions with 0.3-0.5m of high liquid limit, red brown SILT and Gravelly SILT overlying high plasticity red/orange/brown/grey CLAY and Silty CLAY to termination depth. The clays typically have trace amounts of fine to medium grained sand, with or trace fine to coarse grained basalt gravel. The gravel was often highly weathered and friable indicating an extended period of in-situ weathering. Sandy pockets with remanent rock textures within the clays likely represent former basalt cobbles weathered to soil.

The boreholes (excluding BH4) were terminated before the planned depth due to refusal, most likely on basalt cobbles or boulders. BH1 was drilled within proposed Lot 1 and was terminated at 2.05m below ground level. BH2 and BH3 were drilled within the eastern half of proposed Lot 2 and were terminated at 3.7m and 2.0m below ground level respectively. BH4 and BH5 were drilled within the western half of proposed Lot 2 and were terminated at 5.1m and 4.2m below ground level respectively.

No groundwater inflow was observed in any of the boreholes.

The soils encountered at the site are consistent with the mapped basalt talus. No evidence of recent or active landslide-related movement was observed such as fissures or slickensided clay surfaces.

4.3 Laboratory Results

Laboratory testing was conducted by Tasman Geotechnics on six soil samples for Atterberg Limits and particle size distribution. The results are summarised in the following table:

Table 1. Laboratory Results

Proposed Lot	Sample	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Linear Shrinkage (%)	% Gravel	% Sand	% Fines
Lot 1	BH1, 0.8-1.1m	77	28	49	17	14	8	78
	BH1, 1.7-2.05m	55	27	28	11	22	11	67
Lot 2	BH2, 0.7-1.0m	63	28	35	15	7	13	80
	BH3, 0.5-0.9m	81	32	49	17	4	4	92
	BH4, 1.0-1.3m	56	29	27	20	15	13	72
	BH5, 0.5-0.9m	107	31	76	11	1	5	94

These results are considered high, and the soils are classified as high plasticity CLAY and Silty CLAY, trace sand, and with or trace gravel.

5 LANDSLIDE RISK ASSESSMENT

5.1 General

Risk assessment and management principles applied to slopes can be interpreted as answering the following questions;

- What might happen? (HAZARD IDENTIFICATION).
- How likely is it? (LIKELIHOOD).
- What damage or injury might result? (CONSEQUENCE).
- How important is it? (RISK EVALUATION).
- What can be done about it? (RISK TREATMENT).

The risk is a combination of the likelihood and the consequences for the hazard in question. Thus, both likelihood and consequences are considered when evaluating a risk and deciding whether treatment is required.

The qualitative likelihood, consequence and risk terms used in this report for risk to property are given in Appendix C and are based on the Landslide Risk Management Guidelines, published by Australian Geomechanics Society (AGS, 2007). The risk terms are defined by a matrix that brings together different combinations of likelihood and consequence. Risk matrices help to communicate the results of risk assessment, rank risks, set priorities and develop transparent approaches to decision making.

5.2 Geotechnical Model

The MRT mapping for the site indicates the presence of a large landslide complex of unknown activity state, corresponding to the distribution of Quaternary-aged basalt talus (which is ubiquitous across the site). Although in our experience the talus is often underlain by Cenozoic-aged sediments, none of the boreholes at the site encountered Cenozoic-aged sediments due to the thickness of the talus. As such, the model for the site is that the site is located on a displaced mass consisting of basalt talus, and the depth to the underlying undisturbed strata is unknown.

The uphill dam constructed prior to 2018 may be increasing the local groundwater level. Nevertheless, groundwater was not encountered in the boreholes. The permanent groundwater level is expected to be greater than 5m below ground level (the maximum depth of our boreholes), due to the relatively permeable nature of the basalt talus, and potentially coincides with the boundary between the Quaternary-aged basalt talus and underlying Cenozoic-aged sediments.

5.3 Potential Hazards

Based on the site observations, borehole data, and available information discussed in the sections above, the following landslide hazards are identified for the site:

Re-activation of (regional) landslide. Based on the MRT mapping and our site observations, Lot 2 of the proposed subdivision is located on a large landslip of unknown activity. Proposed Lot 1 is located directly downslope of the toe of the mapped landslide. Re-activation of these landslides could occur due to elevated groundwater levels at a regional scale (e.g., impeded groundwater drainage or increase surface infiltration), combined with extensive excavation/erosion at the toe to disturb the existing equilibrium. Based on our assessment, the likelihood for reactivation of a regional landslide is assessed to be Rare.

Small to medium scale landslide (up to about 3m deep). Such landslides can occur where slopes are locally steep and would involve several 1,000 m³ of soil. Medium scale landslides may also occur due to localised soil erosion (e.g., from poor control of surface runoff) and locally elevated groundwater levels (e.g., from wastewater disposal trenches).

Some minor erosion was noted within sections of the unlined table drains bordering the existing driveway. There is presently no other evidence of soil erosion at the site. The likelihood of a small to medium scale slide under current climatic conditions is assessed

to be Unlikely, assuming appropriate design and management measures as described in Section 6.

The identification of the potential hazards considers both the site and nearby properties and is necessary to address stability issues that may negatively impact upon the site and influence the risk to property. It should be noted that of the scenarios discussed, the risks are mostly around pre-existing conditions and the proposed development is unlikely to significantly change these risks.

5.4 Risk to Property

The following table summarises the risk to property of the landslide events in relation to the proposed development, **assuming limitations in Section 6 are incorporated.**

Table 2. Landslide risk profiles

Scenario	Likelihood	Consequence	Risk Profile
(Re)activation of regional scale landslide	Rare: Proposed development has little impact at regional scale	Medium: The site could be extensively damaged	Low
Small to medium scale landslide	Unlikely: If stabilising and drainage control measures are incorporated	Minor: Debris could damage the site	Low

The assessment shows that the proposed development presents a Low level of risk, **provided the limitations listed in Section 6 are incorporated in the design.**

5.5 Risk to Life

The calculation of risk to life requires a quantitative assessment. Here, we have used an event tree approach to assess the risk to life for the person most at risk, a resident in a new house.

An event tree showing a possible sequence of events is presented in Appendix D for the landslides most likely to present a risk to life. The risk assessment shows that the Risk to Life is 1.5×10^{-6} /annum.

5.6 Risk Evaluation

The tolerable levels of risk for the proposed development were outline in Section 2.1. In terms of Risk to Property, this assessment shows that proposed development presents a Low level of risk and hence the risk is tolerable. In terms of Risk to Life, this assessment shows that the assessed Risk to Life is 1.5×10^{-6} /annum which is less than the tolerable risk for a new development, and hence the risk for the development is also tolerable.

In terms of the specific performance criteria listed in Section 2.1 in relation to the subdivision:

- a. any increase in risk from a landslip for adjacent land*

The proposed subdivision works will not result in any increase in risk from a landslip for adjacent land, assuming the recommendations in this report are followed.

- b. the level of risk to use or development arising from an increased reliance on public infrastructure*

The proposed development will rely on public infrastructure in terms of the use of roads and disposal of stormwater. We presume the developer has made enquiries about the capacity of the infrastructure to handle the proposed increased loadings. It is our assessment that increases in traffic and stormwater flows will not materially increase the risk of landslip at the site or surrounds.

- c. the need to minimise future remediation works;*

We do not anticipate any need for future remediation works arising from the proposed development, assuming the recommendations in this report are followed.

- d. any loss or substantial compromise, by a landslide, of access to the lot on or off site;*

The proposed development presents no significant risk of loss or substantial compromise of access by landslide to Upper McEwans Road.

- e. the need to locate building areas outside the landslide hazard area;*

There are no parts of the proposed subdivision that are outside of landslide hazard areas, and hence no dwelling can be located outside the landslide hazard area. Nevertheless, the risk assessment has shown that a tolerable risk level can be achieved for building on the site.

- f. any advice from a State authority, regulated entity or a council;*

We are unaware of any such advice in relation to this clause.

- g. the advice contained in a landslide hazard report*

Section 6 of this report provides recommendations to ensure the subdivision and development of the site can achieve a tolerable level of risk.

In terms of the performance criteria listed in Section 2.1 for the building and works, it is our assessment that the proposed development can achieve and maintain a tolerable risk from landslide having regard to the type, form, scale and intended duration of the development.

There is no increase in the level of risk from a landslide requiring specific hazard reduction or protection measures arising from the proposed development. The building and works are not expected to cause or contribute to landslide on the site, on adjacent land or public infrastructure.

It is our assessment that no landslide reduction or protection measures will be required beyond the boundaries of the site.

6 DISCUSSION & RECOMMENDATIONS

6.1 Limitations on Development

To ensure the proposed subdivision does not change the risk profile above Low for the site, it is recommended that the following limitations be enforced:

- Unlined table drains along the existing driveway should be lined with rock as a minimum to prevent further erosion. A nominal rock size of 50mm to 150mm is acceptable.
- Existing underground pipes (polypipe) feeding the paddock water troughs are potentially leaking and should therefore be decommissioned and removed.
- Permanent excavations for the proposed subdivision (e.g. roads and driveways) are to be less than 1m below ground level unless retained with an engineer designed retaining wall.
- Service trenches should not be excavated parallel to contours, but at an angle or even perpendicular, so that any (ground)water entering the trenches will flow downhill. The upper 0.3m of service trenches should be filled with clay sourced from the site and compacted so that the final level is slightly raised above the natural ground. The raised level will help to prevent surface water infiltrating into the trench. Provision should be made to discharge drainage from service trenches to stormwater pits or table drains.
- Retaining walls should be designed for sloping backfill, surcharge loading, and resist at-rest earth pressures assuming a soil friction angle of 30°. Retaining walls should also include subsoil drainage.
- The placement of fill on the site may be permitted to a maximum depth of 1.0m after removal of vegetation and topsoil unless approved by a Geotechnical Engineer. Fill should be benched into the natural slope to key in the fill, placed in layers and compacted. Permanent fill batters should be constructed at 1V:3H or retained with engineer designed retaining walls. Recommendations on compaction criteria can be provided by Tasman Geotechnics if required.

- Where possible, vegetation should be maintained on the slopes to prevent erosion of surface soils. As a minimum, vegetation should comprise grass. If large trees are planted on steep slopes, then the site should be managed such that when the large trees reach maturity and are removed, they are replaced with new (young) trees.
- Maintenance of surface runoff, vegetation, retaining structures and other measures described above are the responsibility of the site owner.
- Tasman Geotechnics should be involved to review design drawings to ensure they meet the limitations listed above. In addition, Tasman Geotechnics should be involved (e.g. by site visits) at strategic times during the execution of the works.
- Good hillside construction practices should be followed. A copy of the Guidelines for Hillside Construction is presented in Appendix E.

6.2 Site Classification

Due to the site being in a landslide area, the vacant lot within the proposed subdivision has been given a site classification of:

Class P (AS2870 – 2011)

Notwithstanding the above, the natural site classification for the vacant lot is as follows:

CLASS H2 (AS 2870 – 2011)

$$Y_s = 65\text{mm}$$

However, a separate site classification investigation should be conducted once the specific location of proposed dwelling(s) is determined.

The site classification may require modification to account for earthworks, but since the extent of earthworks have yet to be determined, the appropriate classification cannot be determined at this time. If cut or fill earthworks in excess of 0.5m are proposed, then the Site Classification will need to be re-assessed, and possibly changed.

6.3 Footings

Particular attention should be paid to the design of footings as required by AS 2870 – 2011.

In addition to normal founding requirements arising from the above classification, particular conditions at the site dictate that the founding medium for footings should be:

- **CLAY or Silty CLAY (CH)**, high plasticity, red brown/brown/orange, trace/with fine to medium grained sand and fine to coarse grained basalt gravel, typically encountered from 0.3-0.5m below ground level.

An allowable bearing pressure of 100 kPa is available for edge beams, strip and pad footings founded on the natural soil.

It is recommended that no structure be founded across natural soil and fill without the footings extending through the fill to the natural soils, allowance made in the structural design for differential settlements or engineer designed pier or pile foundations adopted.

Bored piers founded at least 2m in the natural soil may be proportioned for an allowable end bearing pressure of 300kPa. The base of bored piers should be inspected to ensure they are dry, clean and free of loose soil prior to pouring concrete.

The site classification presented in Section 6.2 assumes that the current natural drainage and infiltration conditions at the site will not be markedly affected by the proposed site development work. Care should therefore be taken to ensure that surface water is not permitted to collect adjacent to the structure and that significant changes to seasonal soil moisture equilibria do not develop as a result of service trench construction or tree root action.

Attention is drawn to Appendix B of AS 2870 and CSIRO Building Technical File BTF18 "Foundation Maintenance and Footing Performance: A Homeowner's Guide" as a guide to maintenance requirement for the proposed structure.

Variations in soil conditions may occur in areas of the site not specifically covered by the field investigation. The base of all footing or beam excavations should therefore be inspected to ensure that the founding medium meets the requirements discussed above.

6.4 Wind Classification

The wind classification for the site is as follows:

N3 (AS 4055 - 2012)

Based on region, terrain, shielding and topography as follows:

Region	Terrain category	Topography	Shielding
A	TC2.5	T2	PS

6.5 Preliminary Waste Water Disposal

The system design should not increase infiltration of water into the hillside. Therefore, disposal via conventional trenches is not suitable. We recommend treating wastewater in a secondary treatment system and disposing to an irrigation area. Other options include secondary treatment in a sand filter and disposal via transpiration bed, or sand mound. These options are not exhaustive or prescriptive.

An onsite wastewater disposal system design, based on AS1547:2012, depends on the soil permeability, level of wastewater treatment (primary or secondary) and hydraulic loading (L/day). Table 3 summarises typical disposal areas for the site and for secondary treated effluent and assuming a 3 or 4-bedroom dwelling. The soil category is taken to be Class 6.

Table 3. Typical disposal areas

Parameter	3-bedroom dwelling	4-bedroom dwelling
Number of people	5 person	6 person
Hydraulic loading	150L/p/day retic	150L/p/day retic
Level of treatment	Secondary	Secondary
Indicative DIR/DLR	5mm/day	5mm/day
Indicative disposal area	150m ²	180m ²
Area required per bedroom per Directors Guidelines (assuming up to 20% slope and category 6 soil)	156m ²	156m ²
Area required for dwelling	468m ²	624m ²

As the proposed lots are greater than 5000m², there is adequate area available on each proposed lot for wastewater disposal.

The actual wastewater disposal system should be designed by a registered practitioner.



Important information about your report

These notes are provided to help you understand the limitations of your report.

Project Scope

Your report has been developed on the basis of your unique project specific requirements as understood by Tasman Geotechnics at the time, and applies only to the site investigated. Tasman Geotechnics should be consulted if there are subsequent changes to the proposed project, to assess how the changes impact on the report's recommendations.

Subsurface Conditions

Subsurface conditions are created by natural processes and the activity of man.

A site assessment identifies subsurface conditions at discrete locations. Actual conditions at other locations may differ from those inferred to exist, because no professional, no matter how qualified, can reveal what is hidden by earth, rock and time.

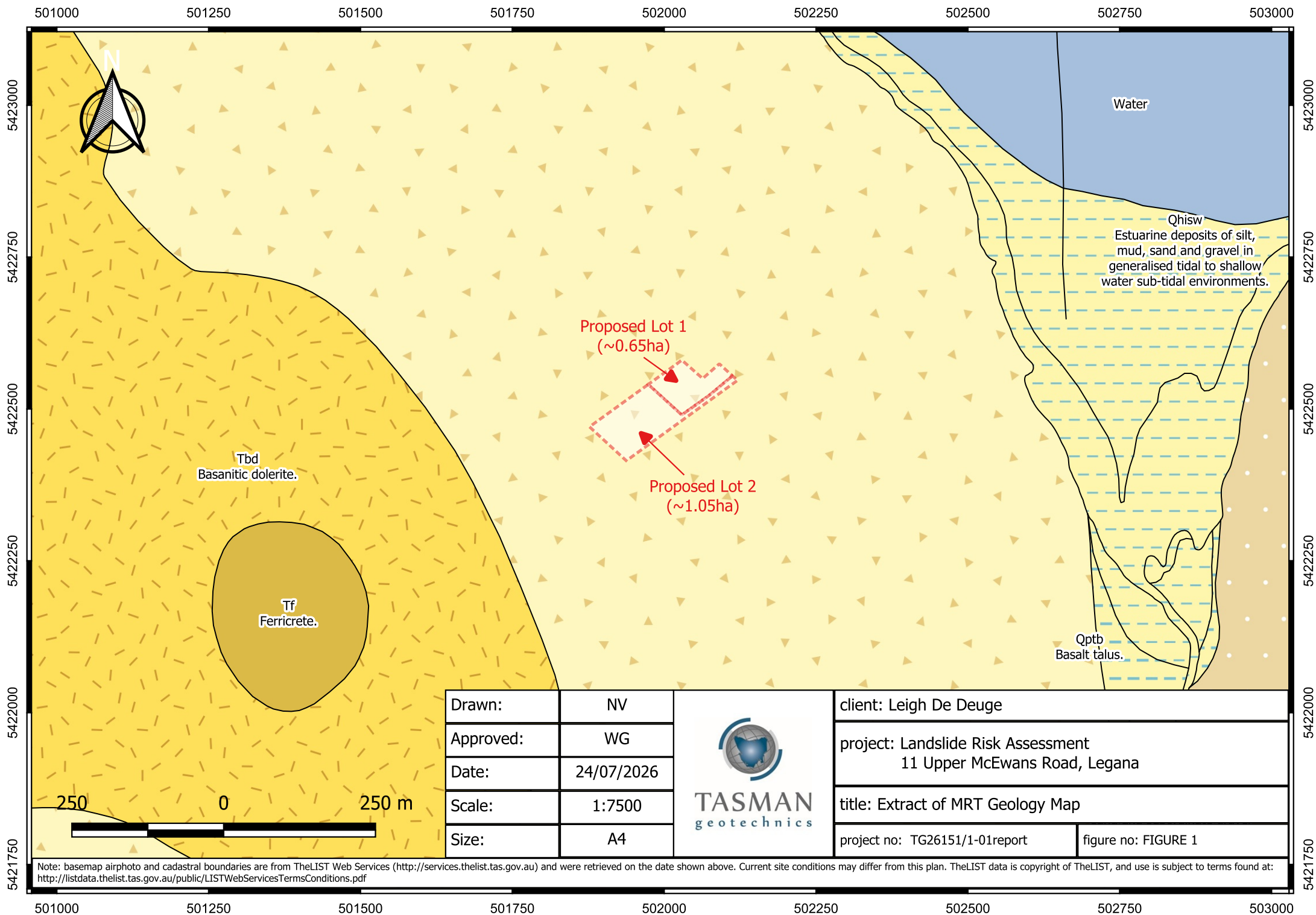
Nothing can be done to change the conditions that exist, but steps can be taken to reduce the impact of unexpected conditions. For this reason, the services of Tasman Geotechnics should be retained throughout the project, to identify variable conditions, conduct additional investigation or tests if required and recommend solutions to problems encountered on site.

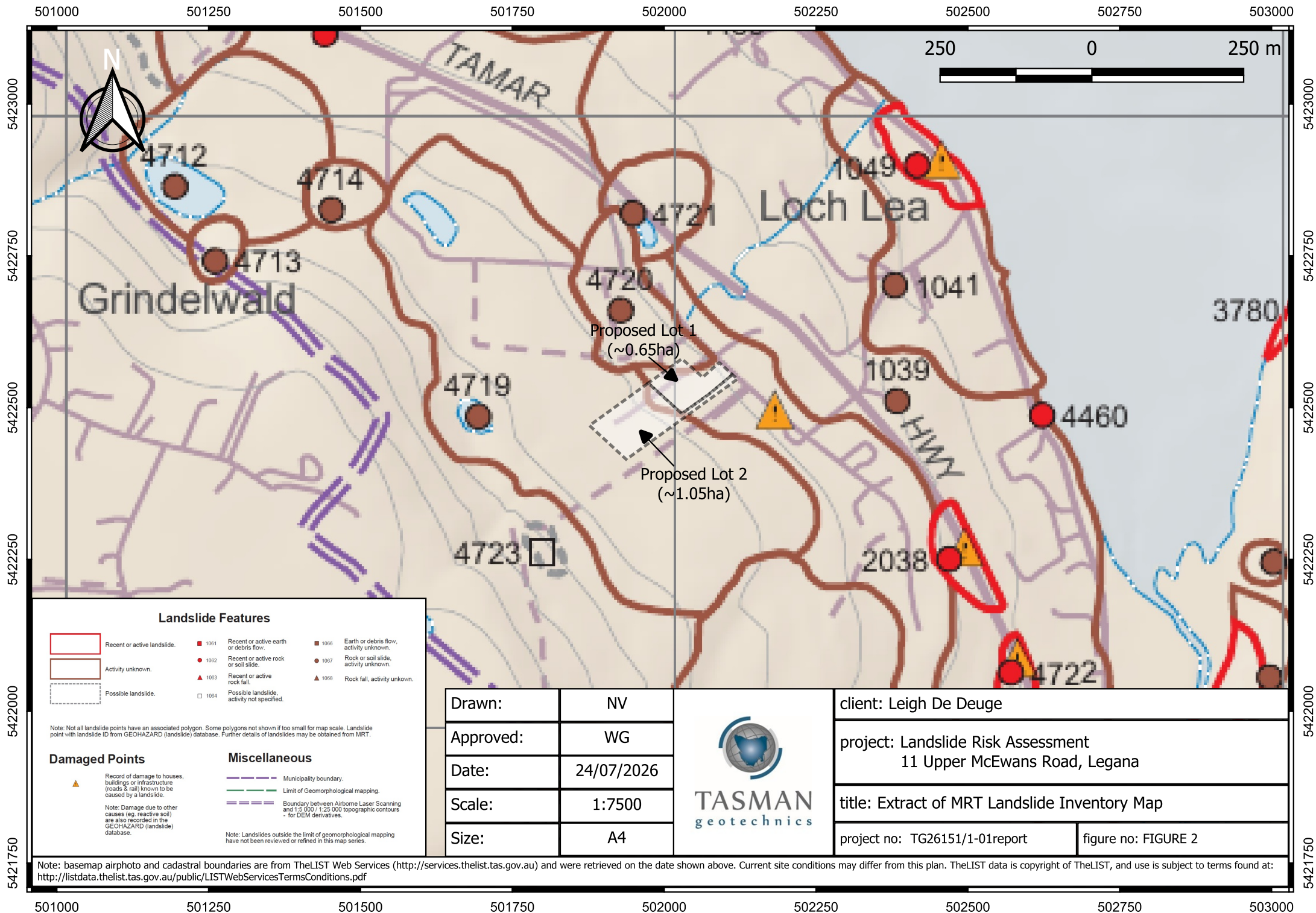
Advice and Recommendations

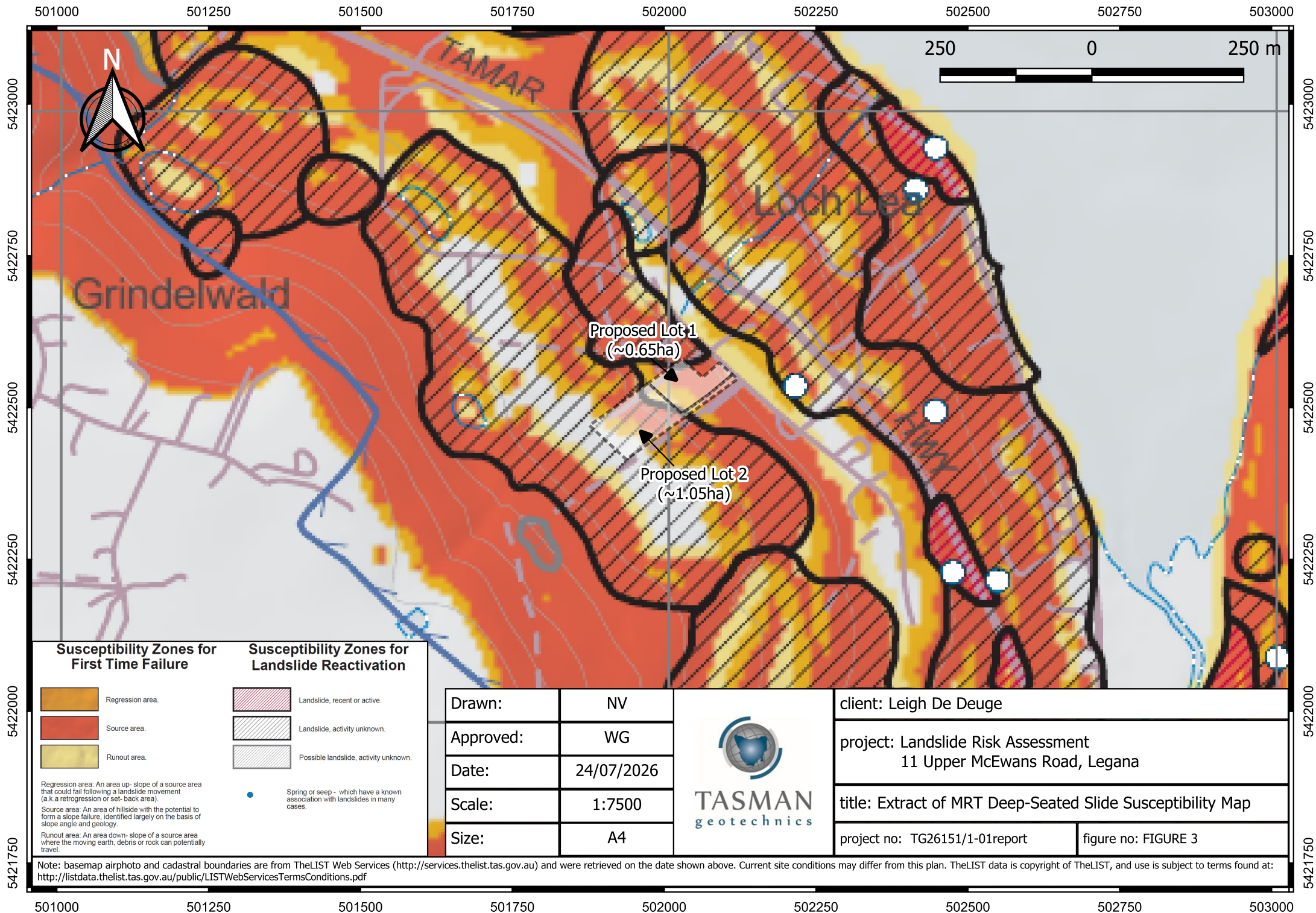
Your report contains advice or recommendations which are based on observations, measurements, calculations and professional interpretation, all of which have a level of uncertainty attached.

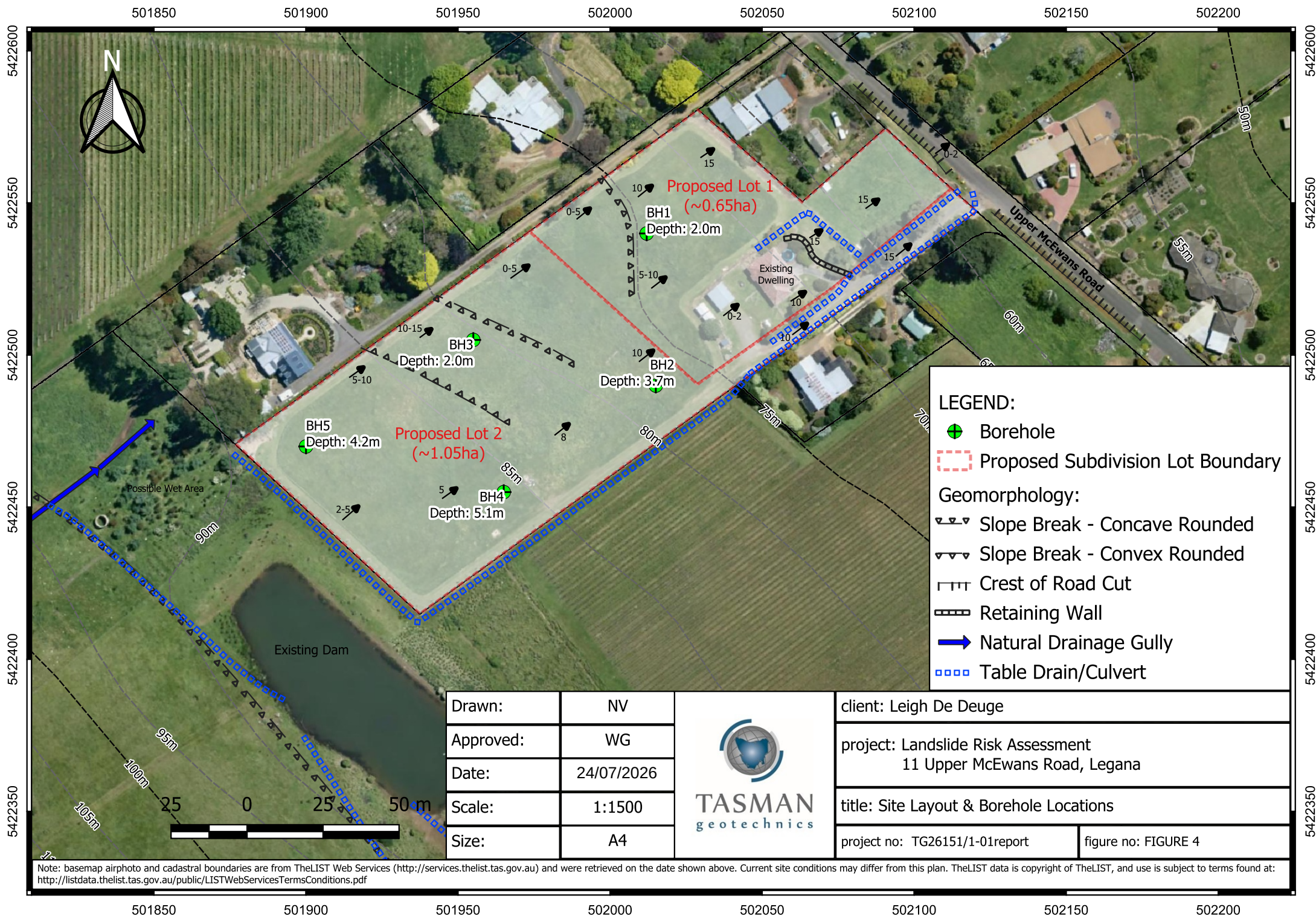
The recommendations are based on the assumption that subsurface conditions encountered at the discrete locations are indicative of an area. This can not be substantiated until implementation of the project has commenced. Tasman Geotechnics is familiar with the background information and should be consulted to assess whether or not the report's recommendations are valid, or whether changes should be considered.

The report as a whole presents the findings of the site assessment, and the report should not be copied in part or altered in any way.









Note: basemap airphoto and cadastral boundaries are from TheLIST Web Services (<http://services.thelist.tas.gov.au>) and were retrieved on the date shown above. Current site conditions may differ from this plan. TheLIST data is copyright of TheLIST, and use is subject to terms found at: <http://listdata.thelist.tas.gov.au/public/LISTWebServicesTermsConditions.pdf>

Appendix A

Engineering Borehole Logs

Soils are described in accordance with the Unified Soil Classification System (UCS), as shown in the following table.

FIELD IDENTIFICATION

COARSE GRAINED SOILS	more than 65% of material less than 63mm is larger than 0.075mm	GRAVELS	GW	Well graded gravels and gravel-sand mixtures, little or no fines	DRY STRENGTH	DILATANCY	TOUGHNESS
			GP	Poorly graded gravels and gravel-sand mixtures, little or no fines			
		GRAVELLY SOILS	GM	Silty gravels, gravel-sand-silt mixtures, non-plastic fines			
			GC	Clayey gravels, gravel-sand-clay mixtures, plastic fines			
		SANDS	SW	Well graded sands and gravelly sands, little or no fines			
			SP	Poorly graded sands and gravelly sands, little or no fines			
		SANDY SOILS	SM	Silty sand, sand-silt mixtures, non-plastic fines			
			SC	Clayey sands, sand-clay mixtures, plastic fines			
FINE GRAINED SOILS	more than 35% of material less than 63mm is less than 0.075mm	SILT & CLAY, liquid limit less than 50%	ML	Inorganic silts, very fine sands or clayey fine sands	None to low	Quick to slow	None
			CL	Inorganic clays or low to medium plasticity, gravelly clays, sandy clays and silty clays	Medium to high	None to very slow	Medium
			OL	Organic silts and organic silty clays of low plasticity	Low to medium	Slow	Low
		SILT & CLAY, liquid limit greater than 50%	MH	Inorganic silts, micaceous or diatomaceous fine sands or silts	Low to medium	Slow to none	Low to medium
			CH	Inorganic clays of high plasticity, fat clays	High	None	High
			OH	Organic clays of medium to high plasticity	Medium to high	None to very slow	Low to medium
			PEAT		Pt	Peat muck and other highly organic soils	

Particle size descriptive terms

Name	Subdivision	Size
Boulders		>200mm
Cobbles		63mm to 200mm
Gravel	coarse	20mm to 63mm
	medium	6mm to 20mm
	fine	2.36mm to 6mm
Sand	coarse	600µm to 2.36mm
	medium	200µm to 600µm
	fine	75µm to 200µm

Consistency of cohesive soils

Term		Undrained strength	Approximate Pocket Penetrometer Reading	Field guide
Very soft	VS	<12kPa	25kPa	A finger can be pushed well into soil with little effort
Soft	S	12 - 25kPa	25-50kPa	Easily penetrated several cm by fist
Firm	F	25 - 50kPa	50-100kPa	Soil can be indented about 5mm by thumb
Stiff	St	50-100kPa	100-200kPa	Surface can be indented but not penetrated by thumb
Very stiff	VSt	100-200kPa	200-400kPa	Surface can be marked but not indented by thumb
Hard	H	>200kPa	>400kPa	Indented with difficulty by thumb nail
Friable	Fb	-	-	Crumbles or powders when scraped by thumb nail

Moisture Condition

Dry (D)	Looks and feels dry. Cohesive soils are hard, friable or powdery. Granular soils run freely through fingers.
Moist (M)	Soil feels cool, darkened in colour. Cohesive soils are usually weakened by moisture presence, granular soils tend to cohere.
Wet (W)	As for moist soils, but free water forms on hands when sample is handled

Cohesive soils can also be described relative to their plastic limit, ie: <Wp, =Wp, >Wp. The plastic limit is defined as the minimum water content at which the soil can be rolled into a thread 3mm thick.

Minor Components

Term	Proportions	Observed properties
'Trace of'	Coarse grained: <5%	Presence just detectable by feel or eye. Soil properties little or no different to general properties of primary component.
	Fine grained: <15%	
'With some'	Coarse grained: 5-12%	Presence easily detected by feel or eye. Soil properties little different to general properties of primary component.
	Fine grained: 15-30%	

Density of granular soils

Term	Density index
Very loose	<15%
Loose	15 to 35%
Medium Dense	35 to 65%
Dense	65 to 85%
Very dense	>85%

ENGINEERING BOREHOLE LOG

Client: Veris
Project: Landslide Risk Assessment
Location: 11 Upper McEwans Road, Legana
Drill model: Eziprobe
Hole diameter: 58mm Push Tube
Slope: -90 **Bearing:** 0



Borehole no: BH1
Sheet no. 1 of 1
Job no. TG23258/1
Date: 08/12/2023
Logged By: NV
Easting: 502012
Northing: 5422540
Elevation:

Method	Penetration 1 2 3 4	Notes Samples Tests	Water	Depth	Graphic Log	Classification	Material Description	Moisture Condition	Consistency density, index	Pocket Penetro- meter kPa	Structure, additional observations
Push Tube				0	X	MH	SILT, high liquid limit, red brown, with fine to medium grained sand and fine to coarse grained subangular basalt gravel	<Wp	Fb		
				0.5		CH	CLAY, high plasticity, red brown/orange, trace fine to medium grained sand and fine to coarse grained subangular to subrounded basalt gravel		H		
				1			Becoming Very Stiff	≥Wp	VSt		
				1.5			Becoming Silty, with fine to coarse grained subangular basalt gravel, trace fine to medium grained sand, red brown/orange/grey				
				2							No groundwater inflow
				2.5			Terminated at 2.05m, refusal possibly on boulder				
				3							
				3.5							
				4							
				4.5							
				5							
				5.5							

method DT Diatube AS Auger screwing AH Auger drilling RR Roller/tricone CB Claw/blade bit NMLC NMLC core NQ, HQ Wireline core	water 17/03/18 water level on date shown water inflow partial drill fluid loss complete drill fluid loss	Notes, Samples, Tests U50 Undisturbed sample 50mm diameter D Disturbed sample N Standard Penetration Test (SPT) N* SPT - sample recovered Nc SPT with solid cone V Vane Shear (kPa) P Pressure Meter Bs Bulk Sample R Refusal E Environmental Sample PID PID Measurement WS Water Sample	Moisture Condition Dry (D) Moist (M) Wet (W) Cohesive soils can also be described relative to their plastic limit, ie: <Wp =Wp >Wp	Consistency VS Very soft S Soft F Firm St Stiff VSt Very stiff H Hard Fb Friable VL Very Loose L Loose MD Medium Dense D Dense VD Very Dense
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ENGINEERING BOREHOLE LOG

Client: Veris
Project: Landslide Risk Assessment
Location: 11 Upper McEwans Road, Legana
Drill model: Eziprobe
Hole diameter: 58mm Push Tube
Slope: -90 **Bearing:** 0



Borehole no: BH2
Sheet no. 1 of 1
Job no. TG23258/1
Date: 08/12/2023
Logged By: NV
Easting: 502015
Northing: 5422490
Elevation:

Method	Penetration	Notes Samples Tests	Water	Depth	Graphic Log	Classification	Material Description	Moisture Condition	Consistency density, index	Pocket Penetro- meter kPa	Structure, additional observations
	1 2 3 4									100 200 300 400 500	
Push Tube				0	X	MH	Gravelly SILT, high liquid limit, red brown/black, fine to medium grained subrounded basalt gravel, with fine to medium grained sand	<Wp	Fb		
				0.1	X						
				0.2	X						
				0.3	X						
				0.4	X						
				0.5		CH	Silty CLAY, high plasticity, brown/red brown, with fine to medium grained sand and fine to coarse grained subrounded basalt gravel	>Wp	St		
				0.6							
				0.7							
				0.8							
				0.9							
		D		1.0			Becoming red brown/orange/grey, trace fine to medium grained sand and fine to coarse grained subangular basalt gravel				
				1.5							
				2.0			Becoming Very Stiff		VSt		
				2.5							
				3.0			Becoming red brown/orange/black/grey, basalt gravel is Highly Weathered and friable				
				3.5							
				4.0			Terminated at 3.7m, refusal possibly on boulder				
				4.5							
				5.0							
				5.5							

method DT Diatube AS Auger screwing AH Auger drilling RR Roller/tricone CB Claw/blade bit NMLC NMLC core NQ, HQ Wireline core	water 17/03/18 water level on date shown water inflow partial drill fluid loss complete drill fluid loss	Notes, Samples, Tests U50 Undisturbed sample 50mm diameter D Disturbed sample N Standard Penetration Test (SPT) N* SPT - sample recovered Nc SPT with solid cone V Vane Shear (kPa) P Pressure Meter Bs Bulk Sample R Refusal E Environmental Sample PID PID Measurement WS Water Sample	Moisture Condition Dry (D) Moist (M) Wet (W) Cohesive soils can also be described relative to their plastic limit, ie: <Wp =Wp >Wp	Consistency VS Very soft S Soft F Firm St Stiff VSt Very stiff H Hard Fb Friable VL Very Loose L Loose MD Medium Dense D Dense VD Very Dense
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ENGINEERING BOREHOLE LOG

Client: Veris
Project: Landslide Risk Assessment
Location: 11 Upper McEwans Road, Legana
Drill model: Eziprobe
Hole diameter: 58mm Push Tube
Slope: -90 **Bearing:** 0



Borehole no: BH3
Sheet no. 1 of 1
Job no. TG23258/1
Date: 08/12/2023
Logged By: NV
Easting: 501955
Northing: 5422505
Elevation:

Method	Penetration				Notes Samples Tests	Water	Depth	Graphic Log	Classification	Material Description	Moisture Condition	Consistency density, index	Pocket Penetro- meter kPa	Structure, additional observations
	1	2	3	4									100 200 300 400 500	
Push Tube							0	X	MH	Gravelly SILT, high liquid limit, red brown, fine to medium grained subrounded basalt gravel, with fine to medium grained sand	<Wp	Fb		
							0.5	X	CH	Silty CLAY, high plasticity, red brown/brown, trace fine to medium grained sand and fine to medium grained subrounded basalt gravel		H		+
							1			Becoming Very Stiff, red brown/orange/pale brown, trace fine to medium grained sand and fine to coarse grained subangular to subrounded basalt gravel, gravel is Highly Weathered and friable	>Wp	VSt		+
							1.5							+
							2			Becoming red brown/orange/pale brown/black				+
							2.5			Terminated at 2.0m, refusal possibly on boulder				
							3							
							3.5							
							4							
							4.5							
							5							
							5.5							

method DT Diatube AS Auger screwing AH Auger drilling RR Roller/tricone CB Claw/blade bit NMLC NMLC core NQ, HQ Wireline core	water 17/03/18 water level on date shown water inflow partial drill fluid loss complete drill fluid loss	Notes, Samples, Tests U50 Undisturbed sample 50mm diameter D Disturbed sample N Standard Penetration Test (SPT) N* SPT - sample recovered Nc SPT with solid cone V Vane Shear (kPa) P Pressure Meter Bs Bulk Sample R Refusal E Environmental Sample PID PID Measurement WS Water Sample	Moisture Condition Dry (D) Moist (M) Wet (W) Cohesive soils can also be described relative to their plastic limit, ie: <Wp =Wp >Wp	Consistency VS Very soft S Soft F Firm St Stiff VSt Very stiff H Hard Fb Friable VL Very Loose L Loose MD Medium Dense D Dense VD Very Dense
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ENGINEERING BOREHOLE LOG

Client: Veris
Project: Landslide Risk Assessment
Location: 11 Upper McEwans Road, Legana
Drill model: Eziprobe
Hole diameter: 58mm Push Tube
Slope: -90 **Bearing:** 0



Borehole no: BH4
Sheet no. 1 of 1
Job no. TG23258/1
Date: 08/12/2023
Logged By: NV
Easting: 501965
Northing: 5422455
Elevation:

Method	Penetration				Notes Samples Tests	Water	Depth	Graphic Log	Classification	Material Description	Moisture Condition	Consistency density, index	Pocket Penetro- meter kPa	Structure, additional observations	
	1	2	3	4									100 200 300 400 500		
Push Tube							0	X	MH	Gravelly SILT, high liquid limit, red brown, fine to medium grained subrounded basalt gravel, with fine to medium grained sand	<Wp	Fb		Sandy pockets with rock textures are possibly Extremely Weathered basalt cobbles	
							X	X							
									X				CH		Silty CLAY, high plasticity, brown/orange, trace fine to medium grained sand and fine to coarse grained subrounded basalt gravel
												Becoming orange brown/grey, with fine to coarse grained subangular basalt gravel, trace fine to medium grained sand, gravel is Highly Weathered and friable	H/Fb		

ENGINEERING BOREHOLE LOG

Client: Veris
Project: Landslide Risk Assessment
Location: 11 Upper McEwans Road, Legana
Drill model: Eziprobe
Hole diameter: 58mm Push Tube
Slope: -90 **Bearing:** 0



Borehole no: BH5
Sheet no. 1 of 1
Job no. TG23258/1
Date: 08/12/2023
Logged By: NV
Easting: 501900
Northing: 5422470
Elevation:

Method	Penetration				Notes Samples Tests	Water	Depth	Graphic Log	Classification	Material Description	Moisture Condition	Consistency density, index	Pocket Penetro- meter kPa	Structure, additional observations
	1	2	3	4									100 200 300 400 500	
Push Tube							0	X	MH	Gravelly SILT, high liquid limit, red brown, fine to medium grained subrounded basalt gravel, with fine to medium grained sand	<Wp	Fb		
							0.1	X						
							0.2	X						
							0.3	X						
							0.4	X						
					D		0.5		CH	CLAY, high plasticity, brown/orange, trace fine to medium grained sand and fine to coarse grained subrounded basalt gravel		H		+
							0.6							+
							0.7							
							0.8							
							0.9							
							1.0			Becoming Silty, red brown/grey/orange, trace fine to medium grained sand and fine to coarse grained subrounded basalt gravel, gravel is Highly Weathered and friable	≥Wp	VSt		+
							1.1							+
							1.2							+
							1.3							+
							1.4							+
							1.5			Becoming Stiff	>Wp	St		+
							1.6							+
							1.7							+
							1.8							+
							1.9							+
							2.0							+
							2.1							+
							2.2							+
							2.3							+
							2.4							+
							2.5			Becoming Very Stiff, red brown/brown/grey		VSt		+
							2.6							+
							2.7							+
							2.8							+
							2.9							+
							3.0							+
							3.1							+
							3.2							+
							3.3							+
							3.4							+
							3.5							+
							3.6							+
							3.7							+
							3.8							+
							3.9							+
							4.0							+
							4.1							+
							4.2			Terminated at 4.2m, refusal possibly on boulder				+
							4.3							+
							4.4							+
							4.5							+
							4.6							+
							4.7							+
							4.8							+
							4.9							+
							5.0							+
							5.1							+
							5.2							+
							5.3							+
							5.4							+
							5.5							+

method DT Diatube AS Auger screwing AH Auger drilling RR Roller/tricone CB Claw/blade bit NMLC NMLC core NQ, HQ Wireline core	water 17/03/18 water level on date shown water inflow partial drill fluid loss complete drill fluid loss	Notes, Samples, Tests U50 Undisturbed sample 50mm diameter D Disturbed sample N Standard Penetration Test (SPT) N* SPT - sample recovered Nc SPT with solid cone V Vane Shear (kPa) P Pressure Meter Bs Bulk Sample R Refusal E Environmental Sample PID PID Measurement WS Water Sample	Moisture Condition Dry (D) Moist (M) Wet (W) Cohesive soils can also be described relative to their plastic limit, ie: <Wp =Wp >Wp	Consistency VS Very soft S Soft F Firm St Stiff VSt Very stiff H Hard Fb Friable VL Very Loose L Loose MD Medium Dense D Dense VD Very Dense
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Appendix B

Site Photographs



Photo 1. Driveway entrance to site, looking ~west.



Photo 2. Grassed paddock and front of existing brick dwelling, looking southwest.



Photo 3. Cut slope up to ~0.7m high on between Upper McEwans Road and northeastern boundary of site, looking southeast.



Photo 4. Rear of existing brick dwelling, looking northeast.



Photo 5. Existing aluminium sheds looking ~west.



Photo 6. Existing decommissioned carport, looking northeast.



Photo 7. Cracked brickwork in north-western wall of existing dwelling.



Photo 8. Cracking in existing concrete driveway, looking southeast.



Photo 9. Cracking in existing asphalt driveway, looking northeast.



Photo 10. Cobble/boulder and concrete landscape retaining wall in front yard of existing dwelling, looking northwest.



Photo 11. Culvert under existing driveway and concrete spoon drain, looking southwest.



Photo 12. Erosion in unlined table drain on southern side of existing driveway.



Photo 13. Proposed Lot 1, looking southeast.



Photo 15. Proposed Lot 2, looking southwest.



Photo 16. Proposed Lot 2, looking southeast.



Photo 17. Water trough at proposed Lot 2 connected to underground 25mm diameter polypipe.



Photo 18. Existing dam and steeper hillslope to the southwest of proposed Lot 2, looking southwest



Photo 19. Natural drainage line on 5 Upper McEwans Road, to west of proposed Lot 2, looking west. Note water-loving reeds growing on flatter area and young trees recently planted on steeper hillslope.



Photo 20. Desiccation cracking in surface soils on proposed Lot 2.

Appendix C
Landslide Risk Matrix

Terminology for use in Assessing Risk to Property

These notes are provided to help you understand concepts and terms used in Landslide Risk Assessment and are based on the “Practice Note Guidelines for Landslide Risk Management 2007” published in *Australian Geomechanics* Vol 42, No 1, 2007.

Likelihood Terms

The qualitative likelihood terms have been related to a nominal design life of 50 years. The assessment of likelihood involves judgment based on the knowledge and experience of the assessor. Different assessors may make different judgments.

Approximate Annual Probability	Implied indicative Recurrence Interval	Description	Descriptor	Level
10^{-1}	10 years	The event is expected to occur over the design life	Almost Certain	A
10^{-2}	100 years	The event will probably occur under adverse conditions over the design life	Likely	B
10^{-3}	1000 years	The event could occur under adverse conditions over the design life	Possible	C
10^{-4}	10,000 years	The event might occur under very adverse conditions over the design life	Unlikely	D
10^{-5}	100,000 years	The event is conceivable but only under exceptional circumstances over the design life	Rare	E
10^{-6}	1,000,000 years	The event is inconceivable or fanciful for the design life	Barely Credible	F

Qualitative Measures of Consequence to Property

Indicative Cost of Damage	Description	Descriptor	Level
200%	Structure(s) completely destroyed and/or large scale damage requiring major engineering works for stabilisation. Could cause at least one adjacent property major consequential damage.	Catastrophic	1
60%	Extensive damage to most of structure, and/or extending beyond site boundaries requiring significant stabilisation works. Could cause at least one adjacent property medium consequential damage	Major	2
20%	Moderate damage to some of structure, and/or significant part of site requiring large stabilisation works. Could cause at least one adjacent property minor consequential damage.	Medium	3
5%	Limited damage to part of structure, and/or part of site requiring some reinstatement stabilisation works	Minor	4
0.5%	Little damage.	Insignificant	5

The assessment of consequences involves judgment based on the knowledge and experience of the assessor. The relative consequence terms are value judgments related to how the potential consequences may be perceived by those affected by the risk. Explicit descriptions of potential consequences will help the stakeholders understand the consequences and arrive at their judgment.

Qualitative Risk Analysis Matrix – Risk to Property

Likelihood		Consequences to Property				
	Approximate annual probability	1: Catastrophic	2: Major	3: Medium	4: Minor	5: Insignificant
A: Almost Certain	10 ⁻¹	VH	VH	VH	H	L
B: Likely	10 ⁻²	VH	VH	H	M	L
C: Possible	10 ⁻³	VH	H	M	M	VL
D: Unlikely	10 ⁻⁴	H	M	L	L	VL
E: Rare	10 ⁻⁵	M	L	L	VL	VL
F: Barely credible	10 ⁻⁶	L	VL	VL	VL	VL

NOTES:

1. The risk associated with Insignificant consequences, however likely, is defined as Low or Very Low
2. The main purpose of a risk matrix is to help rank risks and set priorities and help the decision making process.

Response to Risk

In general, it is the responsibility of the client and/or regulatory and/or others who may be affected to decide whether to accept or treat the risk. The risk assessor and/or other advisers may assist by making risk comparisons, discussing treatment options, explaining the risk management process, advising how others have reacted to risk in similar situations and making recommendations. Attitudes to risk vary widely and risk evaluation often involves considering more than just property damage (eg environmental effects, public reaction, business confidence etc).

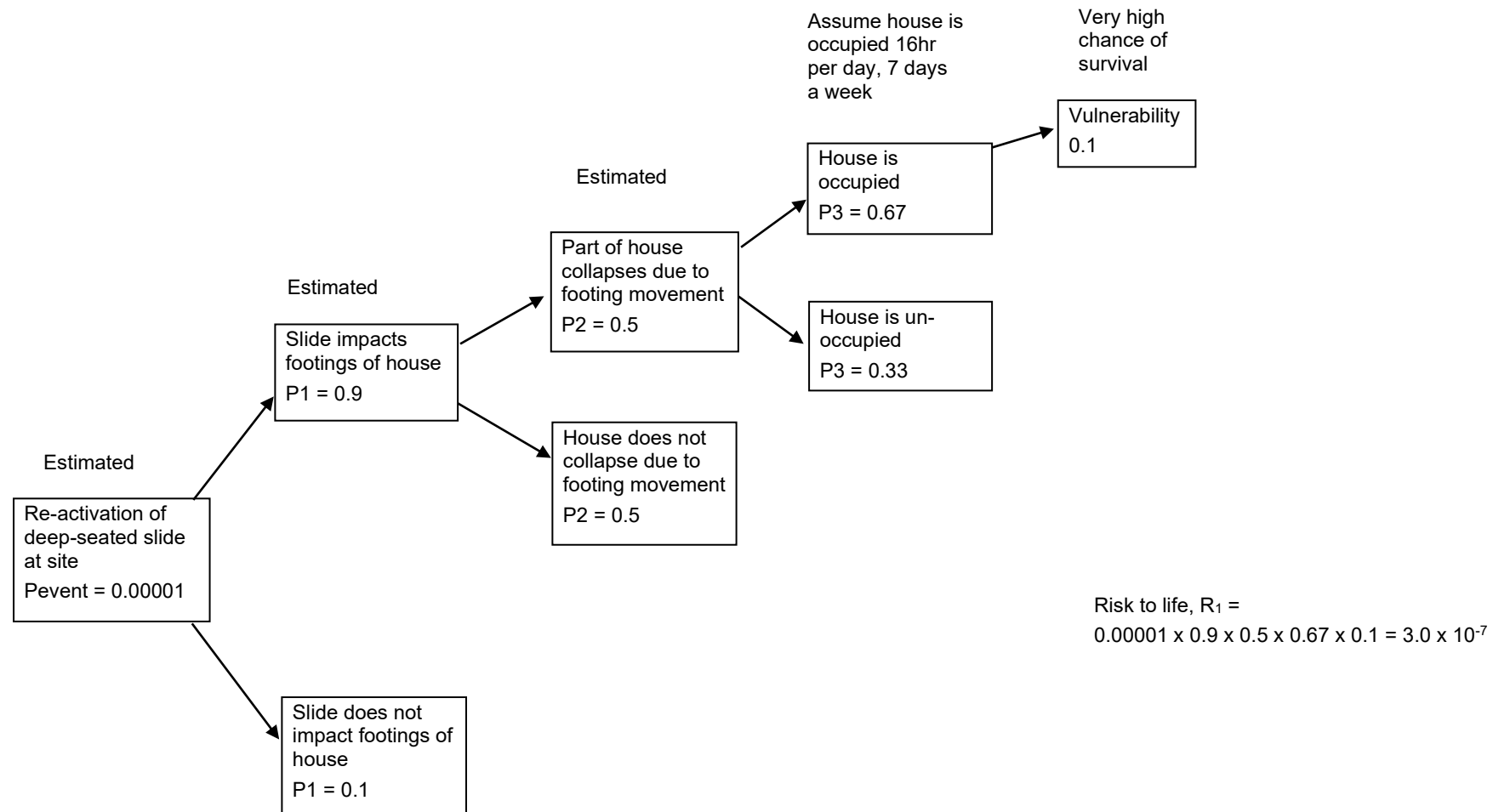
The following is a guide to typical responses to assessed risk.

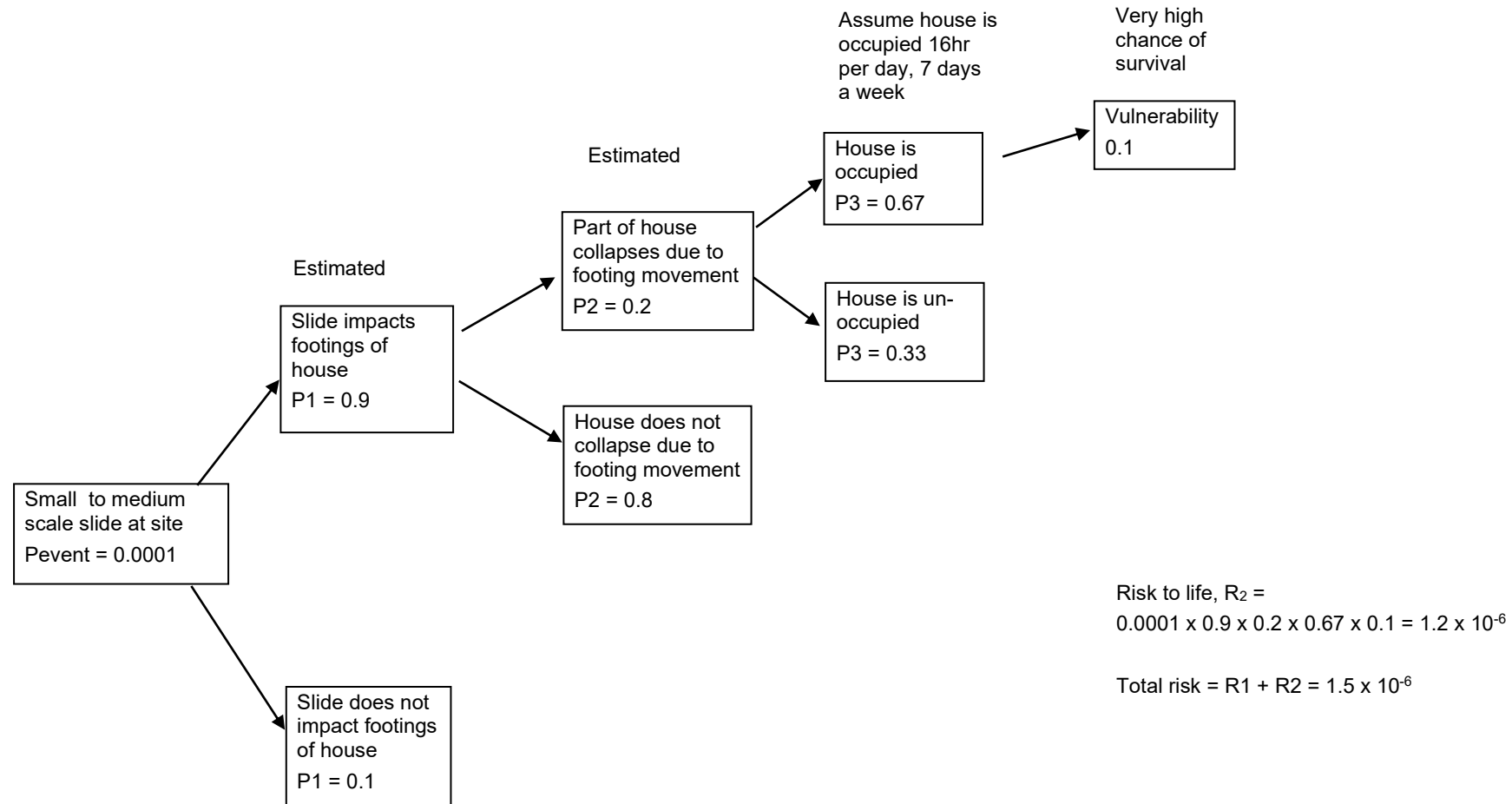
Risk Level		Example Implications
VH	Very High	Unacceptable without treatment. Extensive detailed investigation and research, planning and implementation of treatment options essential to reduce risk to Low; may be too expensive and not practical. Work likely to cost more than the value of the property.
H	High	Unacceptable without treatment. Detailed investigation, planning and implementation of treatment options required to reduce risk to Low. Work would cost a substantial sum in relation to the value of the property.
M	Moderate	May be tolerated in certain circumstances (subject to regulator's approval) but requires investigation, planning and implementation of treatment options to reduce the risk to Low. Treatment options to reduce to Low risk should be implemented as soon as practicable.
L	Low	Usually accepted by regulators. Where treatment has been required to reduce the risk to this level, ongoing maintenance is required.
VL	Very Low	Acceptable. Manage by normal slope maintenance procedures

Appendix D

Risk to Life

Event Tree – Risk to Life, with management measures where recommended





Appendix E

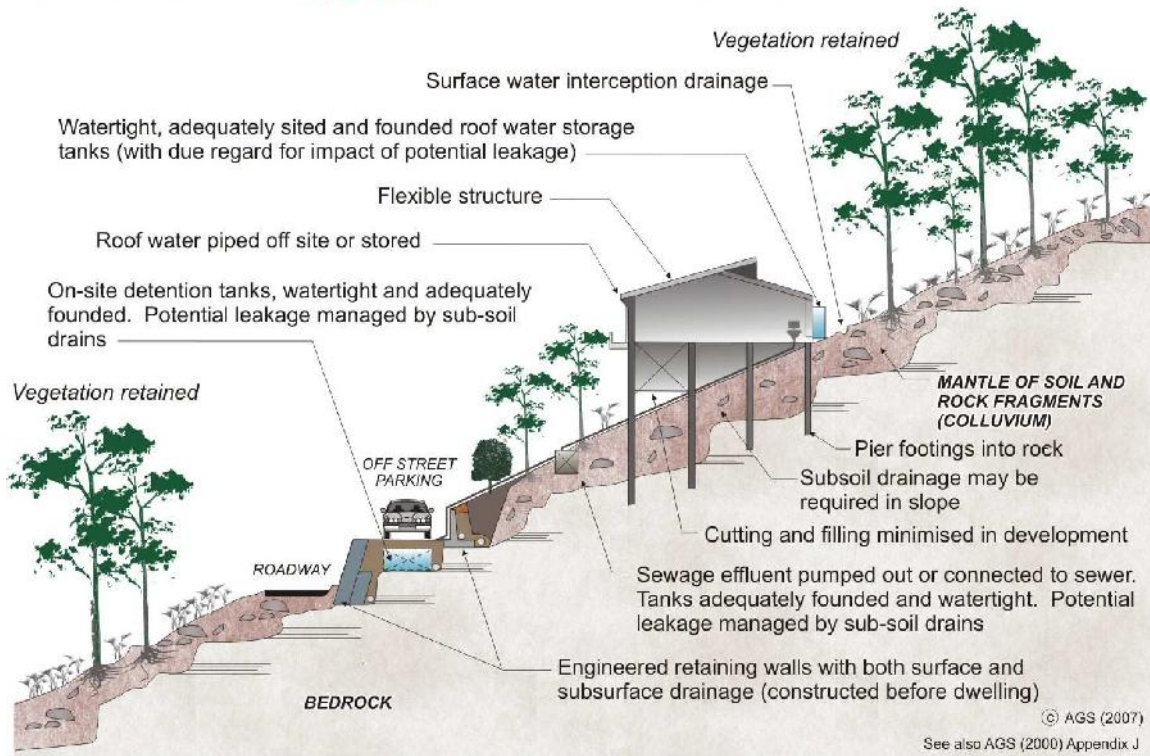
Guidelines to Hillside Construction

AUSTRALIAN GEOGUIDE LR8 (CONSTRUCTION PRACTICE)

HILLSIDE CONSTRUCTION PRACTICE

Sensible development practices are required when building on hillsides, particularly if the hillside has more than a low risk of instability (GeoGuide LR7). Only building techniques intended to maintain, or reduce, the overall level of landslide risk should be considered. Examples of good hillside construction practice are illustrated below.

EXAMPLES OF GOOD HILLSIDE CONSTRUCTION PRACTICE



WHY ARE THESE PRACTICES GOOD?

Roadways and parking areas - are paved and incorporate kerbs which prevent water discharging straight into the hillside (GeoGuide LR5).

Cuttings - are supported by retaining walls (GeoGuide LR6).

Retaining walls - are engineer designed to withstand the lateral earth pressures and surcharges expected, and include drains to prevent water pressures developing in the backfill. Where the ground slopes steeply down towards the high side of a retaining wall, the disturbing force (see GeoGuide LR6) can be two or more times that in level ground. Retaining walls must be designed taking these forces into account.

Sewage - whether treated or not is either taken away in pipes or contained in properly founded tanks so it cannot soak into the ground.

Surface water - from roofs and other hard surfaces is piped away to a suitable discharge point rather than being allowed to infiltrate into the ground. Preferably, the discharge point will be in a natural creek where ground water exits, rather than enters, the ground. Shallow, lined, drains on the surface can fulfil the same purpose (GeoGuide LR5).

Surface loads - are minimised. No fill embankments have been built. The house is a lightweight structure. Foundation loads have been taken down below the level at which a landslide is likely to occur and, preferably, to rock. This sort of construction is probably not applicable to soil slopes (GeoGuide LR3). If you are uncertain whether your site has rock near the surface, or is essentially a soil slope, you should engage a geotechnical practitioner to find out.

Flexible structures - have been used because they can tolerate a certain amount of movement with minimal signs of distress and maintain their functionality.

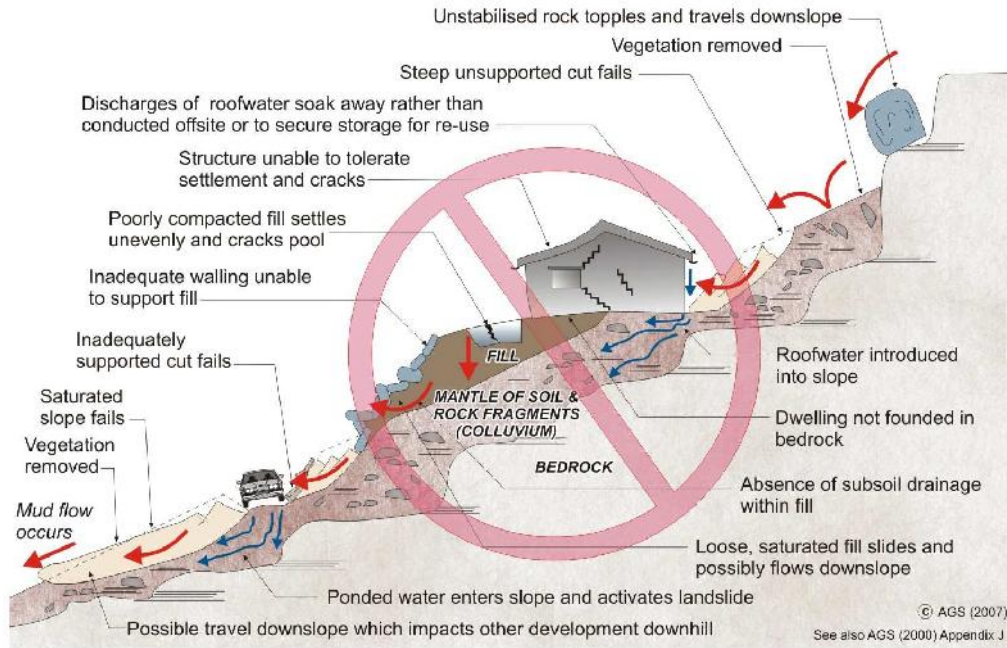
Vegetation clearance - on soil slopes has been kept to a reasonable minimum. Trees, and to a lesser extent smaller vegetation, take large quantities of water out of the ground every day. This lowers the ground water table, which in turn helps to maintain the stability of the slope. Large scale clearing can result in a rise in water table with a consequent increase in the likelihood of a landslide (GeoGuide LR5). An exception may have to be made to this rule on steep rock slopes where trees have little effect on the water table, but their roots pose a landslide hazard by dislodging boulders.

Possible effects of ignoring good construction practices are illustrated on page 2. Unfortunately, these poor construction practices are not as unusual as you might think and are often chosen because, on the face of it, they will save the developer, or owner, money. You should not lose sight of the fact that the cost and anguish associated with any one of the disasters illustrated, is likely to more than wipe out any apparent savings at the outset.

ADOPT GOOD PRACTICE ON HILLSIDE SITES

AUSTRALIAN GEOGUIDE LR8 (CONSTRUCTION PRACTICE)

EXAMPLES OF **POOR** HILLSIDE CONSTRUCTION PRACTICE



WHY ARE THESE PRACTICES POOR?

Roadways and parking areas - are unsurfaced and lack proper table drains (gutters) causing surface water to pond and soak into the ground.

Cut and fill - has been used to balance earthworks quantities and level the site leaving unstable cut faces and added large surface loads to the ground. Failure to compact the fill properly has led to settlement, which will probably continue for several years after completion. The house and pool have been built on the fill and have settled with it and cracked. Leakage from the cracked pool and the applied surface loads from the fill have combined to cause landslides.

Retaining walls - have been avoided, to minimise cost, and hand placed rock walls used instead. Without applying engineering design principles, the walls have failed to provide the required support to the ground and have failed, creating a very dangerous situation.

A heavy, rigid, house - has been built on shallow, conventional, footings. Not only has the brickwork cracked because of the resulting ground movements, but it has also become involved in a man-made landslide.

Soak-away drainage - has been used for sewage and surface water run-off from roofs and pavements. This water soaks into the ground and raises the water table (GeoGuide LR5). Subsoil drains that run along the contours should be avoided for the same reason. If felt necessary, subsoil drains should run steeply downhill in a chevron, or herring bone, pattern. This may conflict with the requirements for effluent and surface water disposal (GeoGuide LR9) and if so, you will need to seek professional advice.

Rock debris - from landslides higher up on the slope seems likely to pass through the site. Such locations are often referred to by geotechnical practitioners as "debris flow paths". Rock is normally even denser than ordinary fill, so even quite modest boulders are likely to weigh many tonnes and do a lot of damage once they start to roll. Boulders have been known to travel hundreds of metres downhill leaving behind a trail of destruction.

Vegetation - has been completely cleared, leading to a possible rise in the water table and increased landslide risk (GeoGuide LR5).

DON'T CUT CORNERS ON HILLSIDE SITES - OBTAIN ADVICE FROM A GEOTECHNICAL PRACTITIONER

More information relevant to your particular situation may be found in other Australian GeoGuides:

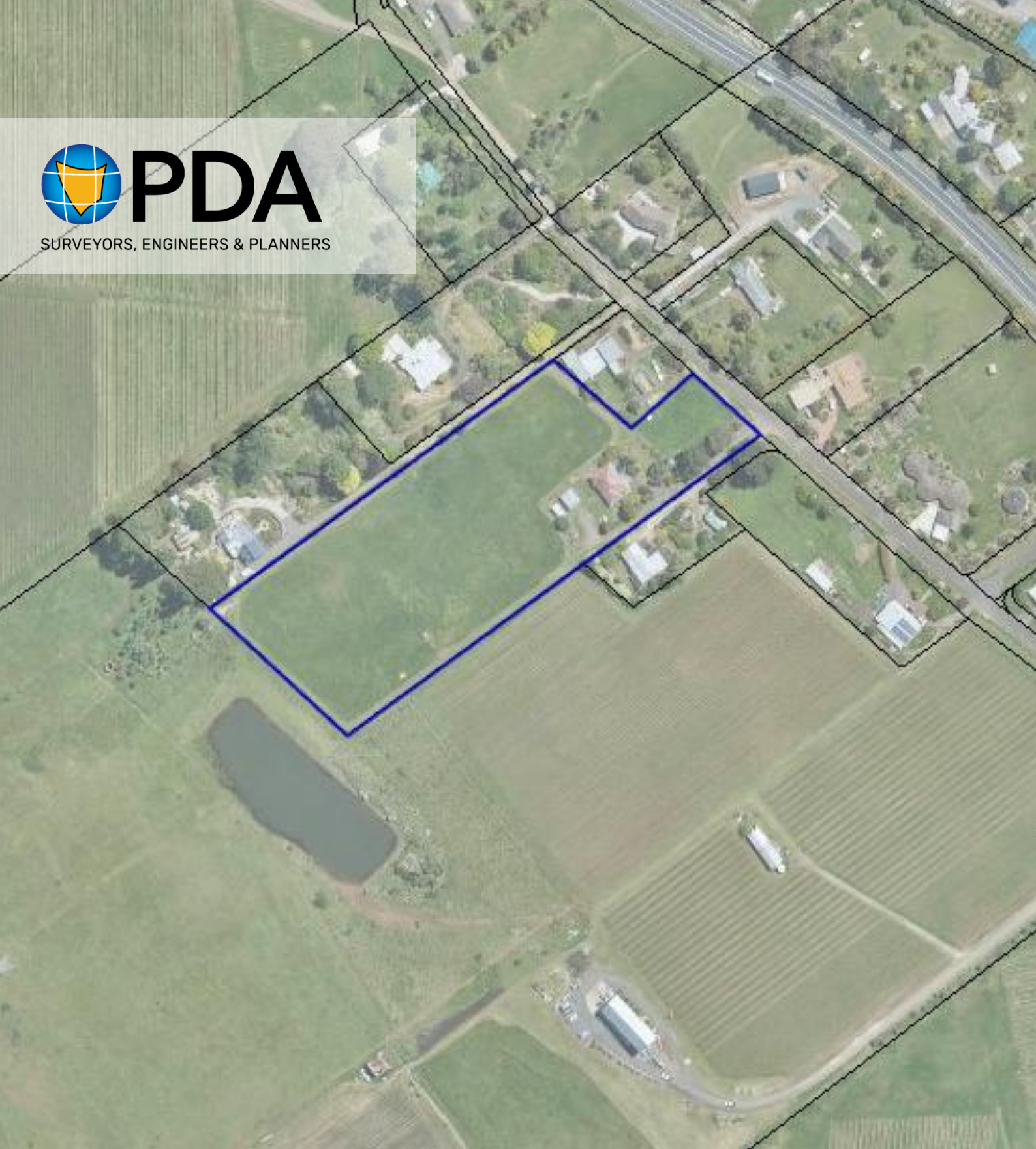
- | | |
|-------------------------------------|--|
| • GeoGuide LR1 - Introduction | • GeoGuide LR6 - Retaining Walls |
| • GeoGuide LR2 - Landslides | • GeoGuide LR7 - Landslide Risk |
| • GeoGuide LR3 - Landslides in Soil | • GeoGuide LR9 - Effluent & Surface Water Disposal |
| • GeoGuide LR4 - Landslides in Rock | • GeoGuide LR10 - Coastal Landslides |
| • GeoGuide LR5 - Water & Drainage | • GeoGuide LR11 - Record Keeping |

The Australian GeoGuides (LR series) are a set of publications intended for property owners; local councils; planning authorities; developers; insurers; lawyers and, in fact, anyone who lives with, or has an interest in, a natural or engineered slope, a cutting, or an excavation. They are intended to help you understand why slopes and retaining structures can be a hazard and what can be done with appropriate professional advice and local council approval (if required) to remove, reduce, or minimise the risk they represent. The GeoGuides have been prepared by the [Australian Geomechanics Society](#), a specialist technical society within Engineers Australia, the national peak body for all engineering disciplines in Australia, whose members are professional geotechnical engineers and engineering geologists with a particular interest in ground engineering. The GeoGuides have been funded under the Australian governments' National Disaster Mitigation Program.



PDA

SURVEYORS, ENGINEERS & PLANNERS



Subdivision Planning Assessment

11 Upper Mcewans Road, Legana

2 Lot Subdivision

56087

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28/08/2026

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Review & Approval		

REVISION HISTORY

Revision	Description	Date
0	First Issue	28/08/2026
1		

ENGAGEMENT & COSTS, FEES, CHARGES & INVOICING DIRECTIONS

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PDA Engineers, Surveyors & Planners has been engaged by Leigh & Josephine Kate De Deuge (the Permit Holder) to prepare documentation for a planning permit for a 2 Lot Subdivision located on land known as 11 Upper Mcewans Road, Legana. Any Permit issued is affixed to land and not to any individual or Agent of the Permit Holder.

The services rendered by the Agent are strictly limited to the preparation of documentation in order to obtain planning permissions only. The Agent is not to be considered as the "Permit Holder" as part of any permit condition issued by any Authority and is not responsible for any costs, fees or charges incurred through a Permit Holder enacting a permit condition. All costs, fees and charges including invoices associated with this use or development is borne of the Permit Holder only and is to be addressed to the Permit Holder only.

In such circumstances where the primary Permit Holder named above sells land or otherwise relinquishes the land; the new permit holder is the party responsible for all costs, fees, charges and invoices incurred by enacting any permit issued that is affixed to the land.

In granting any permit or consent for this development the issuing or consenting Authority hereby agree and are bound to the terms listed above.

EXECUTIVE SUMMARY

PROPERTY ADDRESS	11 Upper Mcewans Road, Legana
PROPOSAL	2 Lot Subdivision

PID/s	3601258
CT/s	174506/1
PLANNING ORDINANCE	Tasmanian Planning Scheme – West Tamar Council
LAND ZONING	Rural Living
SPECIFIC AREAS PLANS	Not applicable to this application
CODE OVERLAYS	CODES
	C2.0 – Parking and Sustainability Transport Code
	C3.0 – Road and Railway Asset Code
	C13.0 - Bushfire-Prone Areas Code
	C15.0 - Landslip Hazard Code

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11.0 RURAL LIVING ZONE.....	7
CODES	12
CONCLUSION	14

THE LAND – SITE

TITLE & DESCRIPTION

The Certificate of Title for the subject site is C/T: 174506/1, PID: 3601258. A copy of the title is provided as Annexure A.

The street address is 11 Upper McEwans Road, Legana and Leigh & Josephine Kate De Deuge are the property owners.

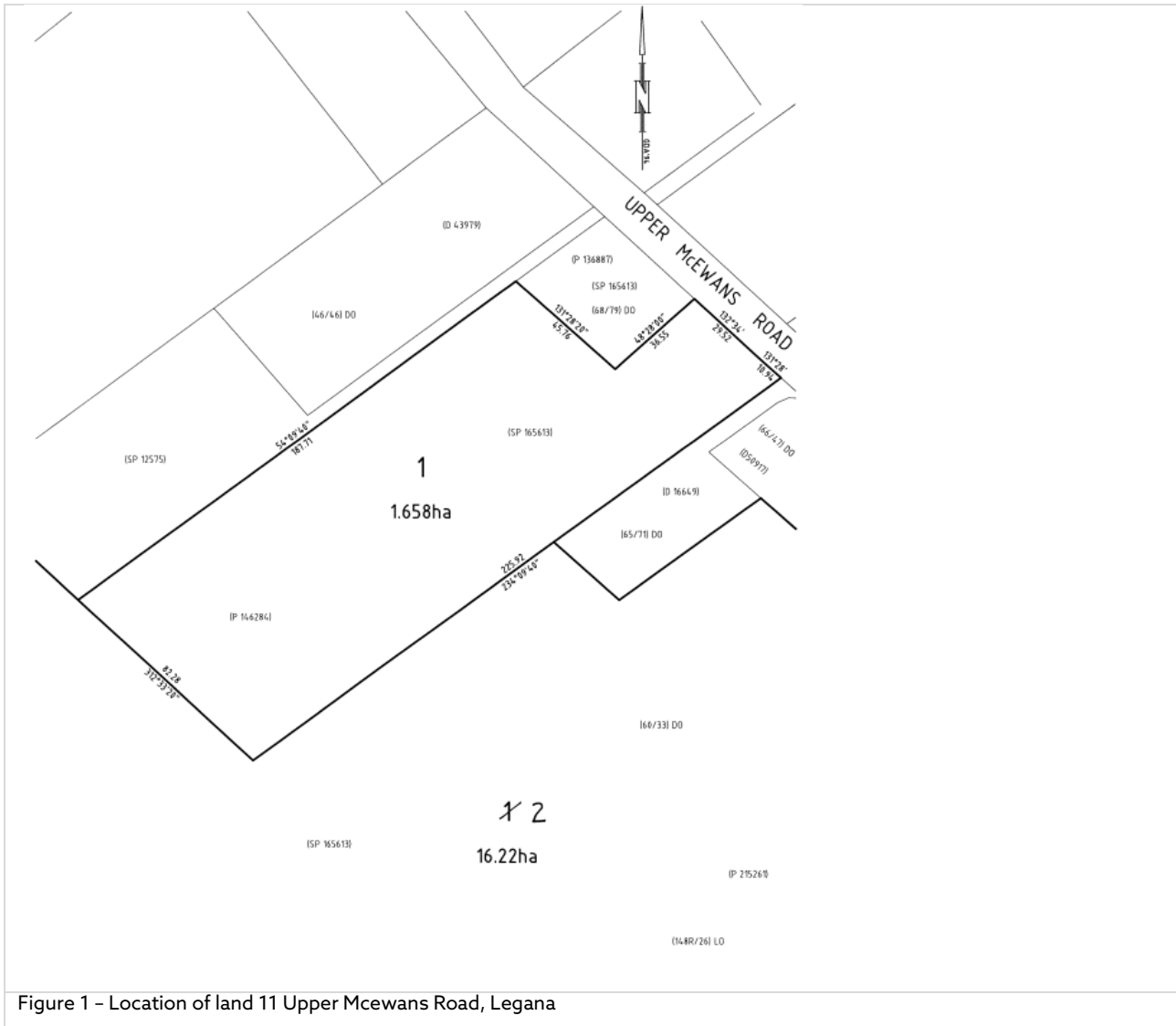


Figure 1 – Location of land 11 Upper Mcewans Road, Legana

PROPOSAL

The proponents are seeking to develop land which features a 2 Lot Subdivision within the West Tamar municipal area under the Tasmanian Planning Scheme.

The purpose of this proposal is to create a 2 Lot subdivision. Lot 1 will retain the existing dwelling and utilise existing water connection but require new driveway. Lot 2 will retain the existing access but require new water connection. The arrangements will likely alter the stormwater and new arrangement's will be required for both.



Figure 2 – Proposal Overview 11 Upper Mcewans Road, Legana

SITE ANALYSIS

CURRENT ZONING

The land is zoned as Rural Living A

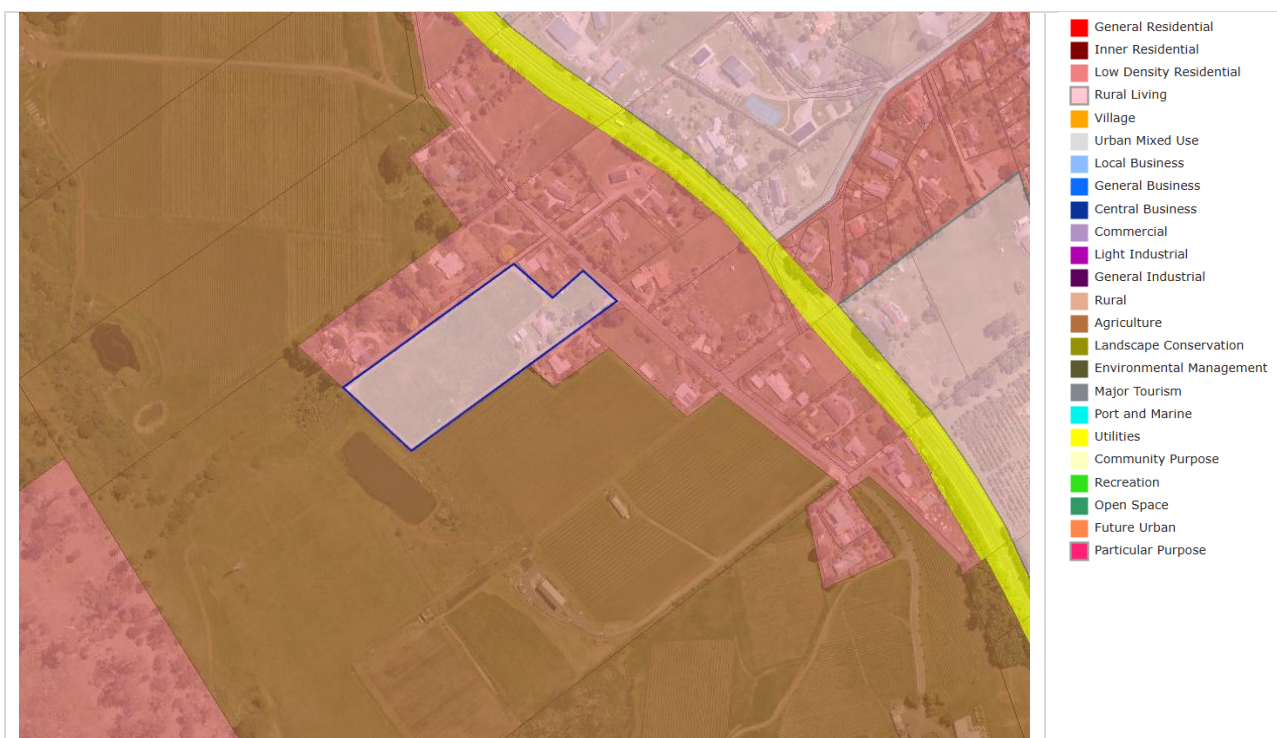


Figure 3 – Current Zoning - 11 Upper Mcewans Road, Legana – source: www.thelist.tas.gov.au

LAND OVERLAYS

The following is a basemap with existing cadastral parcel overlay demonstrate what overlays are applicable to the application. Further details are discussed in the Codes section seen below.



Figure 4 – Planning Scheme Overlays, 11 Upper Mcewans Road, Legana – source: www.thelist.tas.gov.au

Overlays featured in Figure 4 above are discussed in greater detail in the Codes section of this report.

PLANNING SCHEME PROVISIONS

The applicable planning instrument is the Tasmanian Planning Scheme and where applicable, with the Local Area Provisions of the West Tamar Council. The subject land is zoned as Rural Living.

The relevant sections of the Planning Scheme are listed below for discussion. The relevant issue and item identifier is provided and states whether the proposal meets the Acceptable Solutions (AS) or the Performance Criteria (PC) for each relevant section.

The clauses that are not applicable to the proposal have not been discussed.

The applicable Scheme standards for development in the Rural Living Zone are described in the following relevant sections of the Scheme.

ZONE PROVISIONS

Below is a list of the zones that are contained within the Tasmanian Scheme. The relevant zone/s that apply to the subject land feature the responses to clauses applicable to the application:

11.0 RURAL LIVING ZONE

11.5 Development Standards for Subdivision

11.5.1 Lot design

Objective:

That each lot:

- (a) has an area and dimensions appropriate for use and development in the zone;
- (b) is provided with appropriate access to a road; and
- (c) contains areas which are suitable for residential development.

Acceptable Solution	Performance Criteria
A1 <i>Each lot, or a lot proposed in a plan of subdivision, must:</i> (a) <i>have an area not less than specified in Table 11.1 and:</i> (i) <i>be able to contain a minimum area of 15m x 20m clear of:</i> a. <i>all setbacks required by clause 11.4.2 A2 and A3; and</i> b. <i>easements or other title restrictions that limit or restrict development; and</i> (ii) <i>existing buildings are consistent with the setback required by clause 11.4.2 A2 and A3;</i> (b) <i>be required for public use by the Crown, a council or a State authority;</i>	P1 <i>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have sufficient useable area and dimensions suitable for its intended use, having regard to:</i> (a) <i>the relevant requirements for development of existing buildings on the lots;</i> (b) <i>the intended location of buildings on the lots;</i> (c) <i>the topography of the site;</i> (d) <i>any natural or landscape values;</i> (e) <i>adequate provision of private open space; and</i> (f) <i>the pattern of development existing on established properties in the area,</i> <i>and must be no more than 20% smaller than the applicable lot size required by clause 11.5.1 A1.</i>

(c) be required for the provision of Utilities; or (d) be for the consolidation of a lot with another lot provided each lot is within the same zone.	
Response Acceptable Solution The proposed subdivision provides allotments consistent with Table 11.1 with a minimum building area of 15mx20m, complying with setbacks of the zone and easements complying with A1(a). The site is subject to a Site Specific Qualification for Lots size of 0.6ha. The proposed lots are greater than 0.6ha.	
Acceptable Solution	Performance Criteria
A2 <i>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a frontage not less than 40m.</i>	P2 <i>Each lot, or a lot proposed in a plan of subdivision, must be provided with a frontage or legal connection to a road by a right of carriageway, that is sufficient for the intended use, having regard to:</i> <i>(a) the width of frontage proposed, if any;</i> <i>(b) the number of other lots which have the land subject to the right of carriageway as their sole or principal means of access;</i> <i>(c) the topography of the site;</i> <i>(d) the functionality and useability of the frontage;</i> <i>(e) the ability to manoeuvre vehicles on the site; and</i> <i>(f) the pattern of development existing on established properties in the area,</i> <i>and is not less than 3.6m wide.</i>
Response Performance Criteria The proposed subdivision with a frontage of not less than 3.6m wide provides a legal connection to the road and is sufficiently sized to accommodate the intended use. The development has regard to the width of the frontage, topography of the site as well as the functionality and usability of the frontage. The development provides for the manoeuvrability of vehicles on the site. The subdivision is consistent with the existing development pattern of established allotments in the area and considers the number of lots and access provisions to each allotment seen on the submission plans.	

Acceptable Solution	Performance Criteria
A3 <i>Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority.</i>	P3 <i>Each lot, or a lot proposed in a plan of subdivision, must be provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</i> (a) the topography of the site; (b) the length of the access; (c) the distance between the lot or building area and the carriageway; (d) the nature of the road and the traffic; (e) the anticipated nature of vehicles likely to access the site; and (f) the ability for emergency services to access the site.
Response Acceptable Solution Each lot of the proposed subdivision provides vehicular access from the boundary of the lot to the road in accordance with the road authority.	

Table 11.1 Rural Living Zone minimum lot sizes

Rural Living Zone A	1ha
Rural Living Zone B	2ha
Rural Living Zone C	5ha
Rural Living Zone D	10ha

11.5.2 Roads

Objective:

That the arrangement of new roads with a subdivision provides:

- (a) safe, convenient and efficient connections to assist accessibility and mobility of the community;
- (b) adequate accommodation of vehicular, pedestrian, cycling and public transport traffic; and
- (c) the efficient ultimate subdivision of the entirety of the land and of surrounding land.

Acceptable Solution	Performance Criteria
A1 <i>The subdivision includes no new roads.</i>	P1 <i>The arrangement and construction of roads within a subdivision must provide an appropriate level of access, connectivity, safety, convenience and legibility for vehicles, having regard to:</i> (a) any relevant road network plan adopted by the council;

	(b) the existing and proposed road hierarchy; (c) maximising connectivity with the surrounding road network; (d) appropriate access to public transport; and (e) access for pedestrians and cyclists.
Response Acceptable Solution The proposed subdivision does not contain any roads as seen on the submission plans.	

11.5.3 Services

Objective:

That the subdivision of land provides services for the future use and development of the land.

Acceptable Solution	Performance Criteria
A1 <i>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must:</i> (a) be connected to a full water supply service if the frontage of the lot is within 30m of a full water supply service; or (b) be connected to a limited water supply service if the frontage of the lot is within 30m of a limited water supply service, <i>unless a regulated entity advises that the lot is unable to be connected to the relevant water supply service.</i>	P1 <i>No Performance Criterion.</i>
Response Acceptable Solution The proposed subdivision is within 30m of a full water supply and is capable of connecting to a reticulated water supply.	
Acceptable Solution	Performance Criteria
A2 <i>Each lot, or a lot proposed in a plan of subdivision, excluding within Rural Living Zone C or Rural Living Zone D or for public open space, a riparian or littoral reserve or Utilities, must:</i> (a) be connected to a reticulated sewerage system; or	P2 <i>Each lot, or a lot proposed in a plan of subdivision, excluding within Rural Living Zone C or Rural Living Zone D or for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site wastewater treatment system adequate for the future use and development of the land.</i>

<i>(b) be connected to a reticulated sewerage system if the frontage of each lot is within 30m of a reticulated sewerage system and can be connected by gravity feed.</i>	
Response Performance Criteria The proposed subdivision is capable of accommodating an on-site septic system.	
Acceptable Solution	Performance Criteria
A3 <i>Each lot, or lot proposed on a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of connecting to a public stormwater system and must not result in a net increase of stormwater flows to properties to the north of Upper McEwans Road.</i>	P3 <i>No Performance Criteria</i>
Response Acceptable Solution The proposed subdivision is capable of connections to the public stormwater system and not result in increase stormwater flows to the north of the site.	

CODES

The following Codes that have been determined as "Not Applicable" or "Exempted" are indicated as such. The relevant Code/s that apply to the subject application feature the responses to clauses applicable to the proposal.

C2.0 Parking and Sustainable Transport Code

Parking and Sustainable Transport

C2.6.3 Number of accesses for vehicles

Objective:

That:

- (a) access to land is provided which is safe and efficient for users of the land and all road network users, including but not limited to drivers, passengers, pedestrians and cyclists by minimising the number of vehicle accesses;
- (b) accesses do not cause an unreasonable loss of amenity of adjoining uses; and
- (c) the number of accesses minimise impacts on the streetscape.

Acceptable Solution	Performance Criteria
A1 <i>The number of accesses provided for each frontage must:</i> (a) be no more than 1; or (b) no more than the existing number of accesses, <i>whichever is the greater.</i>	P1 <i>The number of accesses for each frontage must be minimised, having regard to:</i> (a) any loss of on-street parking; and (b) pedestrian safety and amenity; (c) traffic safety; (d) residential amenity on adjoining land; and (e) the impact on the streetscape.

Response

Acceptable Solution

The proposal provides for a single access to the frontage.

Acceptable Solution	Performance Criteria
A2 <i>Within the Central Business Zone or in a pedestrian priority street no new access is provided unless an existing access is removed.</i>	P2 <i>Within the Central Business Zone or in a pedestrian priority street, any new accesses must:</i> (a) not have an adverse impact on: (i) pedestrian safety and amenity; or (ii) traffic safety; and (b) be compatible with the streetscape.

Response

Acceptable Solution

Not applicable - the proposal is not within the Central Business Zone and is not within a pedestrian priority street.

C13.0 Bushfire-Prone Areas Code

Please see the provided bushfire report for recommendations.

C15.0 Landslip Hazard Code

C15.7 Development Standards for Subdivision

C15.7.1 Subdivision within a landslip hazard area

Objective:

That subdivision within a landslip hazard area does not create an opportunity for use or development that cannot achieve a tolerable risk from a landslip.

Acceptable Solution	Performance Criteria
A1 <i>Each lot, or a lot proposed in a plan of subdivision, within a landslip hazard area, must:</i> <i>(a) be able to contain a building area, vehicle access, and services, that are wholly located outside a landslip hazard area;</i> <i>(b) be for the creation of separate lots for existing buildings;</i> <i>(c) be required for public use by the Crown, a council or a State authority; or</i> <i>(d) be required for the provision of Utilities.</i>	P1 <i>Each lot, or a lot proposed in a plan of subdivision, within a landslip hazard area must not create an opportunity for use or development that cannot achieve a tolerable risk from landslip, having regard to:</i> <i>(a) any increase in risk from a landslip for adjacent land;</i> <i>(b) the level of risk to use or development arising from an increased reliance on public infrastructure;</i> <i>(c) the need to minimise future remediation works;</i> <i>(d) any loss or substantial compromise, by a landslip, of access to the lot on or off site;</i> <i>(e) the need to locate building areas outside the landslip hazard area;</i> <i>(f) any advice from a State authority, regulated entity or a council; and</i> <i>(g) the advice contained in a landslip hazard report.</i>
Response Performance Criteria The application is accompanied by a Landslide Hazard Report which addresses the provisions of this Code.	

CONCLUSION

This supporting documentation demonstrates that the proposal being a 2 Lot Subdivision supports and furthers the Planning Scheme aims and objectives, relevant Clauses and Schedules as set out for development within the Rural Living Zone.

Where the proposal does not comply with the Acceptable Solution (AS) it has been demonstrated that the Performance Criteria (PC) are satisfied meeting the objective of the relevant provision and there is not an unreasonable loss of amenity as a consequence of this proposal.

With the above in mind, a planning permit for a 2 Lot Subdivision at 11 Upper Mcewans Road, Legana is respectfully sought from the Planning Authority.



Contact

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