



## **DEVELOPMENT APPLICATION**

### **PDPLANPMTD-2024/044736**

**PROPOSAL:** Outbuilding

**LOCATION:** 38 Rushton Close, Sandford

**RELEVANT PLANNING SCHEME:** Tasmanian Planning Scheme - Clarence

**ADVERTISING EXPIRY DATE:** 15 July 2024

The relevant plans and documents can be inspected at the Council offices, 38 Bligh Street, Rosny Park, during normal office hours until 15 July 2024. In addition to legislative requirements, plans and documents can also be viewed at [www.ccc.tas.gov.au](http://www.ccc.tas.gov.au) during these times.

Any person may make representations about the application to the Chief Executive Officer, by writing to PO Box 96, Rosny Park, 7018 or by electronic mail to [clarence@ccc.tas.gov.au](mailto:clarence@ccc.tas.gov.au). Representations must be received by Council on or before 15 July 2024.

To enable Council to contact you if necessary, would you please also include a day time contact number in any correspondence you may forward.

Any personal information submitted is covered by Council's privacy policy, available at [www.ccc.tas.gov.au](http://www.ccc.tas.gov.au) or at the Council offices.

# Clarence City Council



Clarence... a brighter place

## APPLICATION FOR DEVELOPMENT / USE OR SUBDIVISION

The personal information on this form is required by Council for the development of land under the Land Use Planning and Approvals Act 1993. We will only use your personal information for this and other related purposes. If this information is not provided, we may not be able to deal with this matter. You may access and/or amend your personal information at any time. How we use this information is explained in our **Privacy Policy**, which is available at [www.ccc.tas.gov.au](http://www.ccc.tas.gov.au) or at Council offices.

Proposal:

NEW OUTBUILDING / GARAGE 10m x 7m

Location:

Address 38 RUSHTON CLOSE

Suburb/Town SANDFORD TAS Postcode 7020

Current Owners/s:

Applicant:

Personal Information Removed

Tax Invoice for application fees to be in the name of: (if different from applicant)

Estimated cost of development

\$ 75,000 -

Is the property on the Tasmanian Heritage Register?

Yes

No

(if yes, we recommend you discuss your proposal with Heritage Tasmania prior to lodgement as exemptions may apply which may save you time on your proposal)

If you had pre-application discussions with a Council Officer, please give their name

Current Use of Site:

RESIDENTIAL

Does the proposal involve land administered or owned by the Crown or Council?

Yes

No

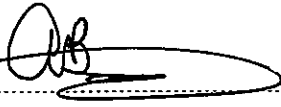
Declaration:

- I have read the Certificate of Title and Schedule of Easements for the land and am satisfied that this application is not prevented by any restrictions, easements or covenants.
- I authorise the provision of a copy of any documents relating to this application to any person for the purposes of assessment or public consultation. I agree to arrange for the permission of the copyright owner of any part of this application to be obtained. I have arranged permission for Council's representatives to enter the land to assess this application
- I declare that, in accordance with Section 52 of the Land Use Planning and Approvals Act 1993, that I have notified the owner of the intention to make this application. Where the subject property is owned or controlled by Council or the Crown, their signed consent is attached. Where the application is submitted under Section 43A, the owner's consent is attached.
- I declare that the information in this declaration is true and correct.

Acknowledgement:

- I acknowledge that the documentation submitted in support of my application will become a public record held by Council and may be reproduced by Council in both electronic and hard copy format in order to facilitate the assessment process; for display purposes during public consultation; and to fulfil its statutory obligations. I further acknowledge that following determination of my application, Council will store documentation relating to my application in electronic format only.

Applicant's Signature:

Signature  P & J STROOS P/L Date 03/06/2024

ADRIAN BROWN.

**PLEASE REFER TO THE DEVELOPMENT/USE AND SUBDIVISION CHECKLIST ON THE FOLLOWING PAGES TO DETERMINE WHAT DOCUMENTATION MUST BE SUBMITTED WITH YOUR APPLICATION.**



Real Sheds - Real Value®



38 McIntyre Street, MORNINGTON, TAS, 7018

P: 03 6244 4300 • F: 03 6244 4355

E: admin@fairdinkumhobart.com.au • www.theonestopshedshop.com.au

Building Accreditation No: CC784R

A.B.N: 45 109 681 263

### AGENT AUTHORISATION

Project Address:	38 Rushton Close, Sandford Tas 7020
------------------	-------------------------------------

I/We

Owner Name/s:	SAT Investments (II) Pty Ltd (Simon Pahor)
Postal Address:	
Phone Number:	0417590701
Email Address:	Simon.pahor@gmail.com

Hereby appoint the following person/company representative:

Agent Name/s:	P&J Sheds Pty Ltd
Postal Address:	38 McIntyre Street Mornington, TAS 7018
Phone Number:	03 6244 4300
Email Address:	admin@fairdinkumhobart.com.au

to act as my/our authorised agent to apply for any required certificates and permits, and to provide any necessary information to, or communicate with the relevant council as required in accordance with the Building Act 2016.

Owner Name:		Owner Signature:		Date:	
Owner Name:		Owner Signature:		Date:	

SEARCH OF TORRENS TITLE

VOLUME 172388	FOLIO 2
EDITION 2	DATE OF ISSUE 16-Jul-2020

SEARCH DATE : 12-Apr-2024

SEARCH TIME : 01.04 PM

DESCRIPTION OF LAND

City of CLARENCE  
 Lot 2 on Sealed Plan 172388  
 Derivation : Part of Lot 37216, 152A-2R-20P Gtd. to P G Tankard  
 Prior CT 136517/1

SCHEDULE 1

E109705 TRANSFER to SAT INVESTMENTS (II) PTY LTD Registered  
 16-Jul-2020 at 12.01 PM

SCHEDULE 2

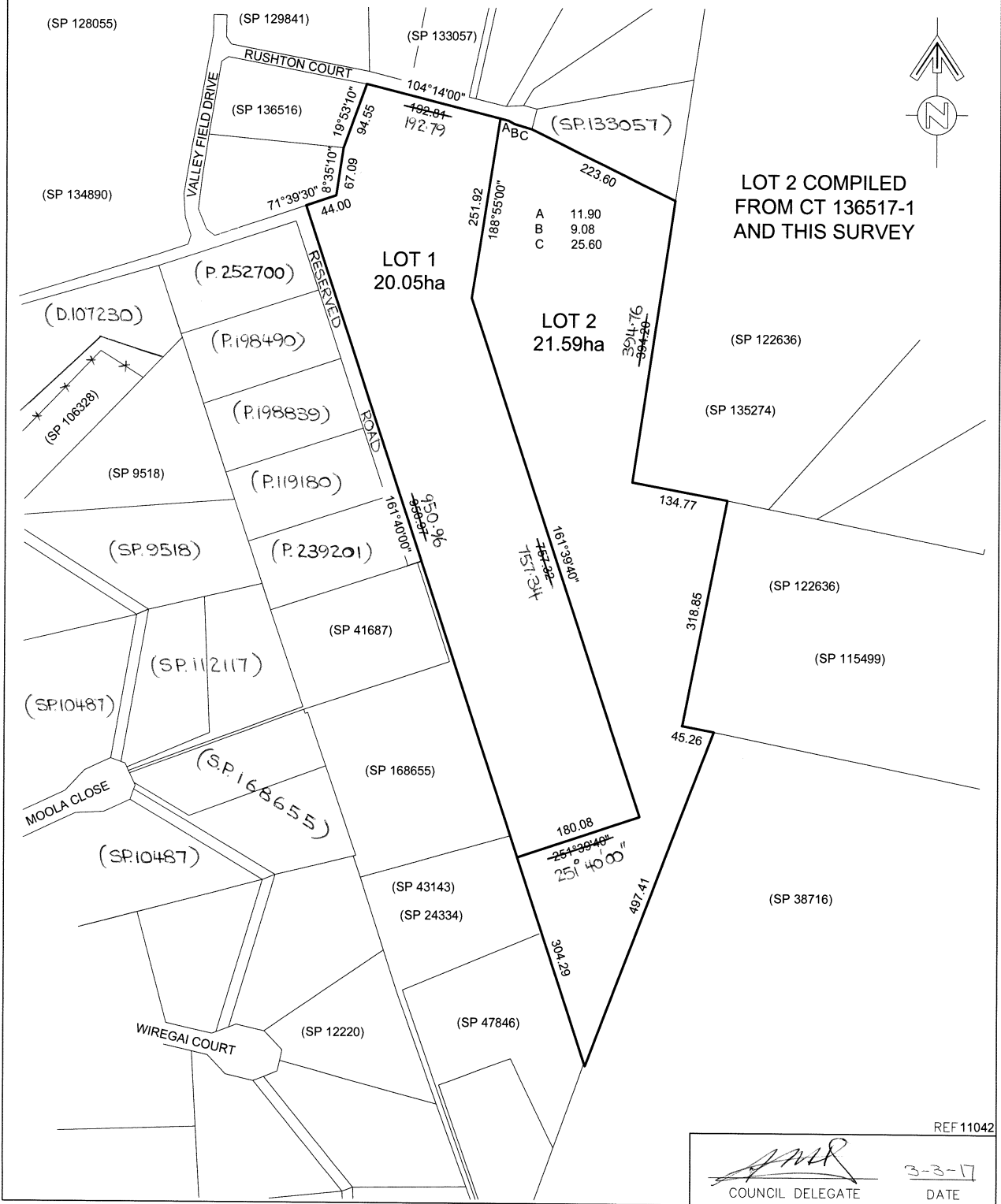
Reservations and conditions in the Crown Grant if any  
 SP172388 COVENANTS in Schedule of Easements  
 C208023 AGREEMENT pursuant to Section 71 of the Land Use  
 Planning and Approvals Act 1993 Registered  
 02-Dec-1999 at noon  
 C342031 AGREEMENT pursuant to Section 71 of the Land Use  
 Planning and Approvals Act 1993 Registered  
 23-Nov-2001 at noon

UNREGISTERED DEALINGS AND NOTATIONS

No unregistered dealings or other notations

<p>OWNER KARRYN CLAIRE DARGIE</p> <p>FOLIO REFERENCE C.T. 136517/1</p> <p>GRANTEE PART OF LOT 37216 152a 2r 20p GTD TO PHYLLIS GWENDOLINE TANKARD</p>	<p>PLAN OF SURVEY</p> <p>BY SURVEYOR CHRISTOPHER LEWIS ANDREWS LOCATION 57 MT. RUMNEY ROAD. MT RUMNEY</p> <p>CITY OF CLARENCE</p> <p>SCALE 1: 5000 LENGTHS IN METRES</p>	<p>Registered Number <b>SP172388</b></p> <p>APPROVED EFFECTIVE FROM ... - 8 MAR 2017</p> <p><i>Alice Kana</i> Recorder of Titles</p>
---	--	--

<p>MAPSHEET MUNICIPAL CODE No. <b>107(5224)(5424)</b></p>	<p>LAST UPI No</p>	<p>LAST PLAN No. <b>P.136517</b></p>	<p>ALL EXISTING SURVEY NUMBERS TO BE CROSS REFERENCED ON THIS PLAN</p>
---	------------------------	--	--



<b>SCHEDULE OF EASEMENTS</b>	Registered Number
<b>NOTE:</b> THE SCHEDULE MUST BE SIGNED BY THE OWNERS & MORTGAGEES OF THE LAND AFFECTED. SIGNATURES MUST BE ATTESTED.	SP 172388

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.

**Easements**

No easements are created by this Schedule of Easements.

**Covenant**

The owner or owners of each lot on the Plan covenant with the Subdivider, Karryn Claire Dargie, and the owner for the time being of every other lot on the Plan to the intent that the burden of this covenant may run with and bind the covenantor's lot and every part thereof, and that the benefit thereof may be annexed to and devolve with each and every other lot shown on the Plan, to observe the following stipulation:

1. Not to erect any fence or barrier on the boundary line dividing lots 1 and 2 on the plan. This covenant does not prohibit the covenantor from demarcating the boundary location between lots 1 and 2 on the plan using natural vegetation or natural materials.

**Execution**

Signed by **Karryn Claire Dargie**



.....  
Karryn Claire Dargie

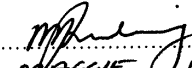
in the presence of:

Witness Signature

Witness Printed Name

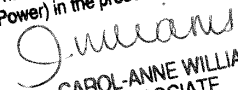
Witness Occupation

Witness Address

  
.....  
**MAGGIE JANE KEELING**  
**LAWYER**  
.....  
**133 MACQUARIE ST. HOBART TAS**


Executed this **12th** day of **APRIL 2017**  
by its Attorney **Yves Schlabach**  
(who declares that he/she has received no notice of revocation of the said Power) in the presence of: )  
**NATIONAL AUSTRALIA BANK LIMITED** )  
under Power of Attorney No. PA 18831 )

Executed by **National Australia Bank Limited** )  
as Mortgagee of Registered Mortgage **C345401** )  
over Folio of the Register Volume 136517 Folio 1 )

  
**CAROL-ANNE WILLIAMS**  
**ASSOCIATE**  
**10/86 COLLINS STREET**  
**HOBART TAS**  
**7003**

Q:\020475\Schedule of Easements d3 21.3.12.doc

(USE ANNEXURE PAGES FOR CONTINUATION)

SUBDIVIDER: Karryn Claire Dargie	PLAN SEALED BY: Clarence City Council
FOLIO REF: C.T. 136517/1	DATE: <b>3-3-2017</b>
SOLICITOR & REFERENCE: Worrall Lawyers (Maggie Keeling)	<b>SD-2011/37</b> REF NO.  Council Delegate
<b>NOTE:</b> The Council Delegate must sign the Certificate for the purposes of identification.	

NEW OUTBUILDING / GARAGE  
38 RUSHTON CLOSE, SANDFORD, 7020  
FOR SAT INVESTMENTS (II) PTY LTD

CERTIFICATE OF TITLE: VOLUME - 172388 FOLIO - 2  
PID: 3502524  
LAND AREA: 21.59ha

PLANNING SCHEME: TASMANIAN PLANNING SCHEME  
CLARENCE LOCAL PROVISIONS SCHEDULE

ZONE: 20.0 RURAL

OVERLAYS: LOW LANDSLIP HAZARD BAND  
FLOOD PRONE AREAS  
AIRPORT OBSTACLE LIMITATION AREA  
MEDIUM LANDSLIP HAZARD BAND  
BUSHFIRE PRONE AREAS  
PRIORITY VEGETATION AREA

SOIL CLASSIFICATION: ASSUMED S

WIND REGION: A

TERRAIN CATEGORY: TC 2.9 I

IMPORTANCE LEVEL: 2 (DOMESTIC)

SHIELDING: 1

TOPOGRAPHY: 1.13

BAL: NOT REQUIRED (CLASS 10A STRUCTURE NOT WITHIN 6m OF DWELLING)

INDEX OF DRAWINGS - BY ADRIAN BROWN CC6003R

PAGE 1 - SITE PLAN 1:5000

PAGE 2 - LOCATION PLAN 1:500

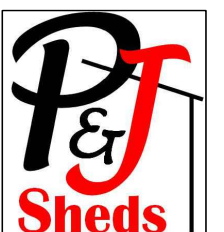
PAGE 3 - ELEVATIONS 1:100

PAGE 4 - FLOOR PLAN 1:100

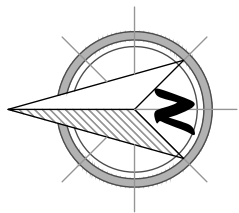
PAGE 5 - PLUMBING PLAN 1:100

ADDITIONAL DRAWINGS / ENGINEERING  
BY NORTHERN CONSULTING ENGINEERS

JOB NO - 16945







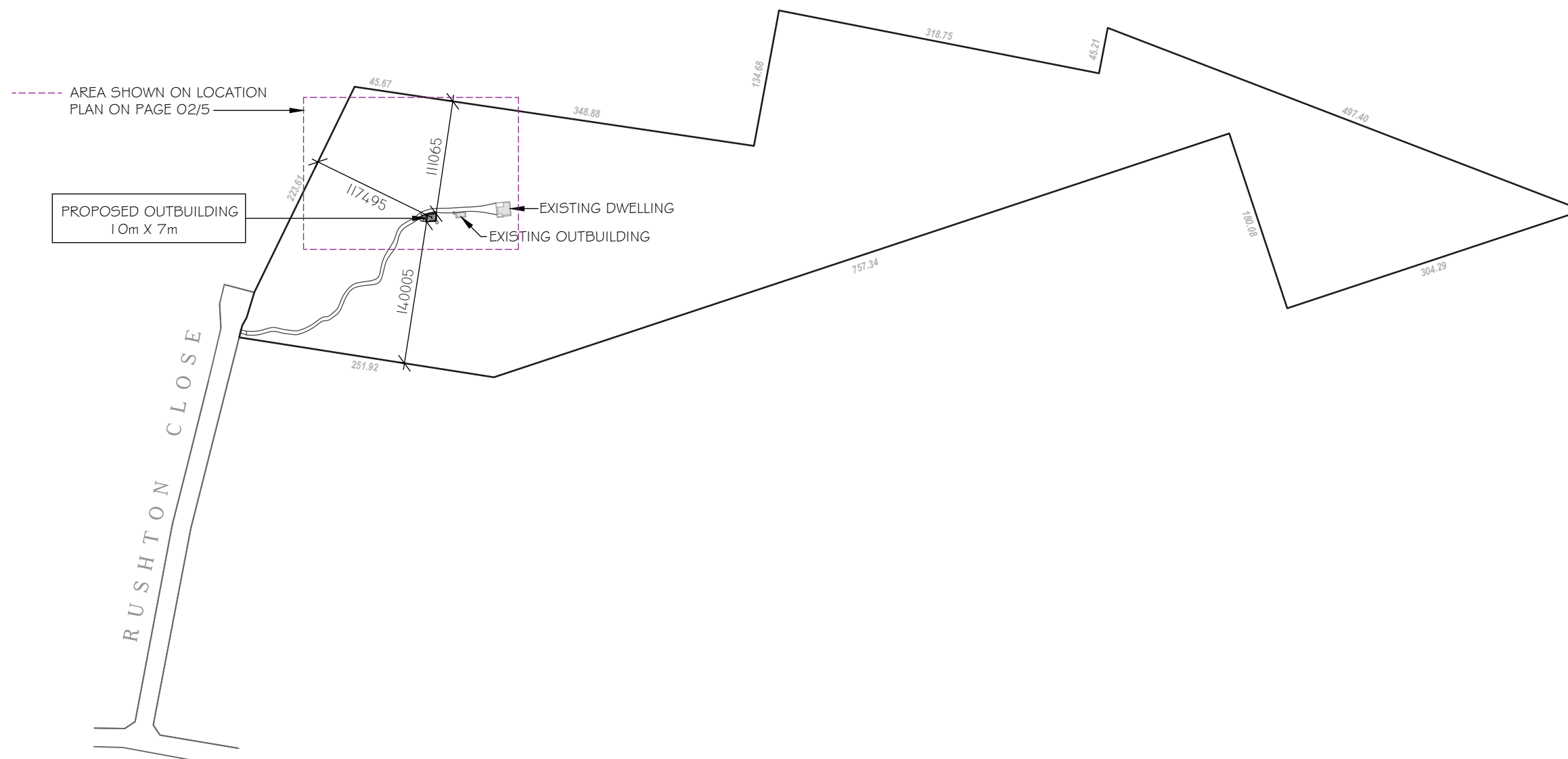
LOT AREA: 21.59ha

EXISTING DWELLING AREA: 114.30m<sup>2</sup>

" DECK AREA: 24.31m<sup>2</sup>

" OUTBUILDING: 32m<sup>2</sup>

PROPOSED OUTBUILDING / GARAGE AREA: 70m<sup>2</sup>



VOL : 172388  
FOLIO: 2  
21.59ha

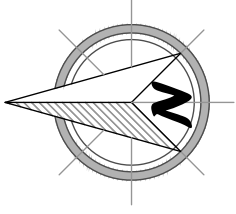
SITE PLAN PREPARED FROM CERTIFICATE OF TITLE INFORMATION AND MEASUREMENTS TAKEN ON SITE. CONFIRMATION OF BOUNDARY LOCATION BY REGISTERED SURVEYOR IS ALWAYS RECOMMENDED PRIOR TO CONSTRUCTION AND IS THE RESPONSIBILITY OF THE PROPERTY OWNER.

## SITE PLAN 1:5000

P&J SHEDS PTY LTD. 38 McIntyre Street, Mornington, TAS, 7018. P: (03) 62 44 4300 F: (03) 6244 4355 E: admin@fairdinkumhobart.com.au ABN: 45109681263 THIS DRAWING IS THE PROPERTY OF P&J SHEDS. © 2024

PROPOSAL : NEW OUTBUILDING / GARAGE  
OWNER : SAT INVESTMENTS (II) PTY LTD  
ADDRESS: 38 RUSHTON CLOSE, SANDFORD, 7020  
SCALE: 1:5000  
DATE: 3rd JUNE 2024  
AMENDED:  
DRAWN BY: A. BROWN CCG003R  
PAGE: 01/05  
JOB NO : 16945





348.88

LOT AREA: 21.59ha

EXISTING DWELLING AREA: 114.30m<sup>2</sup>

" DECK AREA: 24.31m<sup>2</sup>

" OUTBUILDING: 32m<sup>2</sup>

PROPOSED OUTBUILDING / GARAGE AREA: 70m<sup>2</sup>

223.67

117495

111065

PROPOSED OUTBUILDING  
10m X 7m

EXISTING DWELLING

EXISTING OUTBUILDING

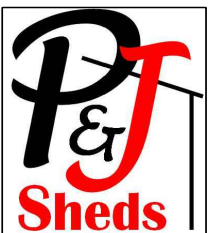
VOL : 172388  
FOLIO: 2  
21.59ha

EXISTING GRAVEL DRIVEWAY

20000

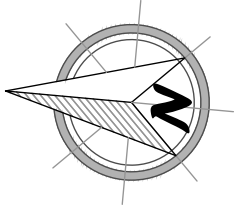
140005  
TO BOUNDARY

PROPOSAL : NEW OUTBUILDING / GARAGE  
OWNER : SAT INVESTMENTS (II) PTY LTD  
ADDRESS: 38 RUSHTON CLOSE, SANDFORD, 7020  
SCALE: 1:500  
DATE: 3rd JUNE 2024  
AMENDED:  
DRAWN BY: A. BROWN CCG003R  
PAGE: 02/05  
JOB NO : 16945



SITE PLAN PREPARED FROM CERTIFICATE OF TITLE INFORMATION AND MEASUREMENTS TAKEN ON SITE. CONFIRMATION OF BOUNDARY LOCATION BY REGISTERED SURVEYOR IS ALWAYS RECOMMENDED PRIOR TO CONSTRUCTION AND IS THE RESPONSIBILITY OF THE PROPERTY OWNER.

### LOCATION PLAN 1:500



138.0

138.62

138.07

EXISTING DRIVEWAY

138.84

138.33

138.86

138.73

139.26

139.15

139.0

138.42

138.33

139.48

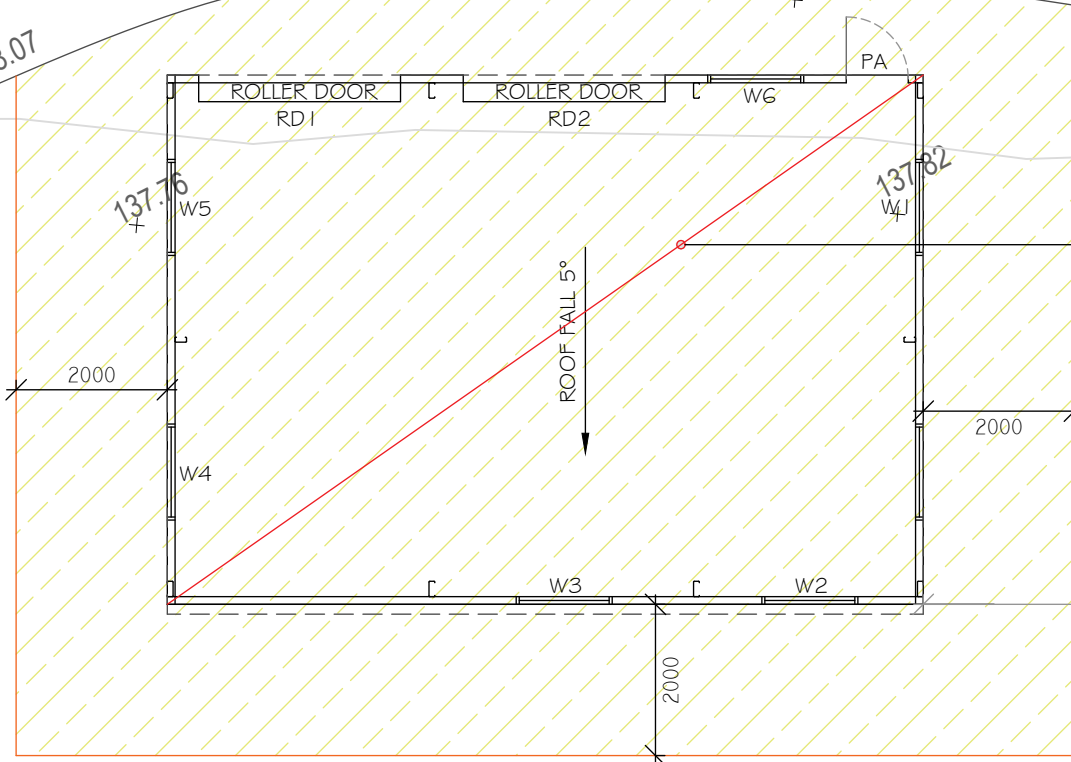
138.84

139.94

139.44

138.22

137.93 138.0



FFL TO BE APPROX. 138.5 AHD  
MAX HEIGHT OF BUILDING APPROX. 142.585 AHD

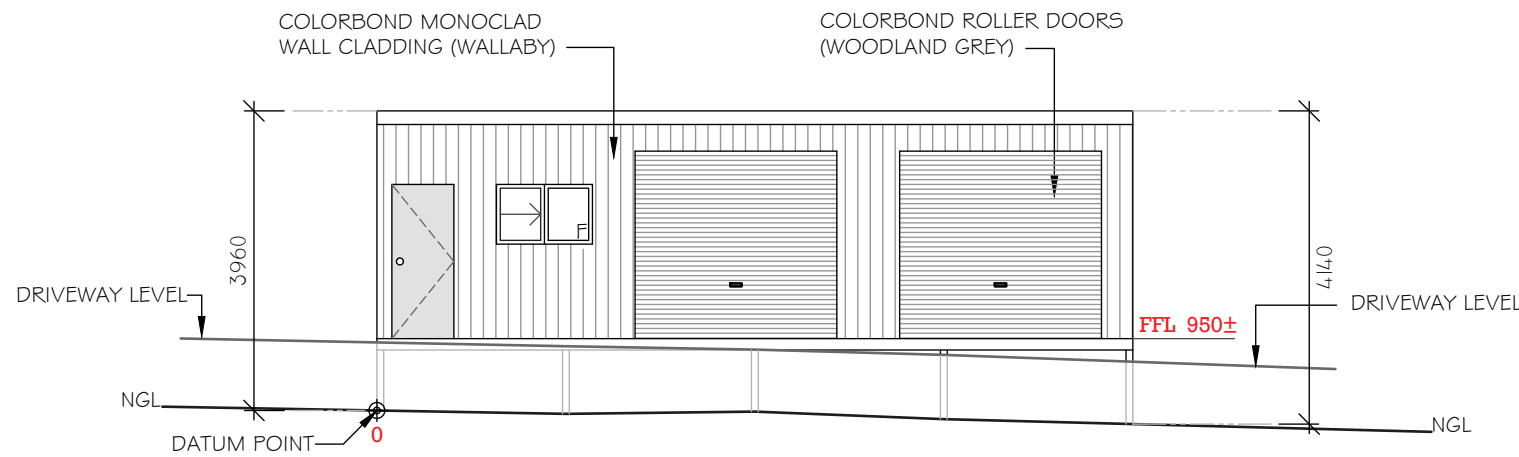
AREA AROUND DEVELOPMENT TO BE CLEARED  
140m<sup>2</sup>

EXISTING  
OUTBUILDING

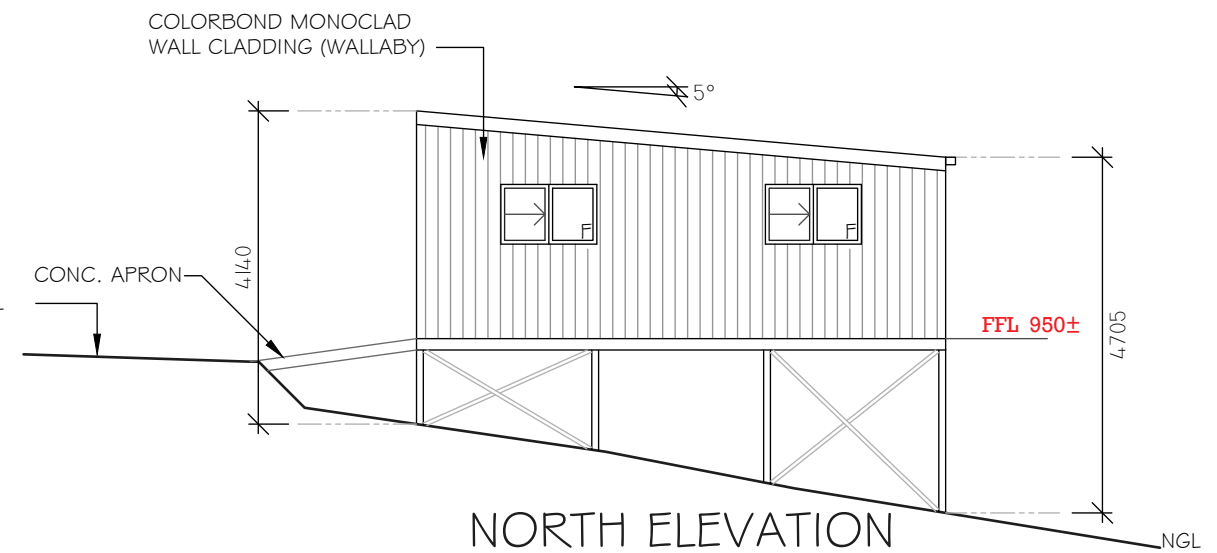
# FLOOR PLAN 1:100

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PROPOSAL : NEW OUTBUILDING / GARAGE  
 OWNER : SAT INVESTMENTS (II) PTY LTD  
 ADDRESS: 38 RUSHTON CLOSE, SANDFORD, 7020  
 SCALE: 1:100  
 DATE: 24th JUNE 2024  
 AMENDED:  
 DRAWN BY: A. BROWN CCG003R  
 PAGE: 01/01  
 JOB NO : 16945

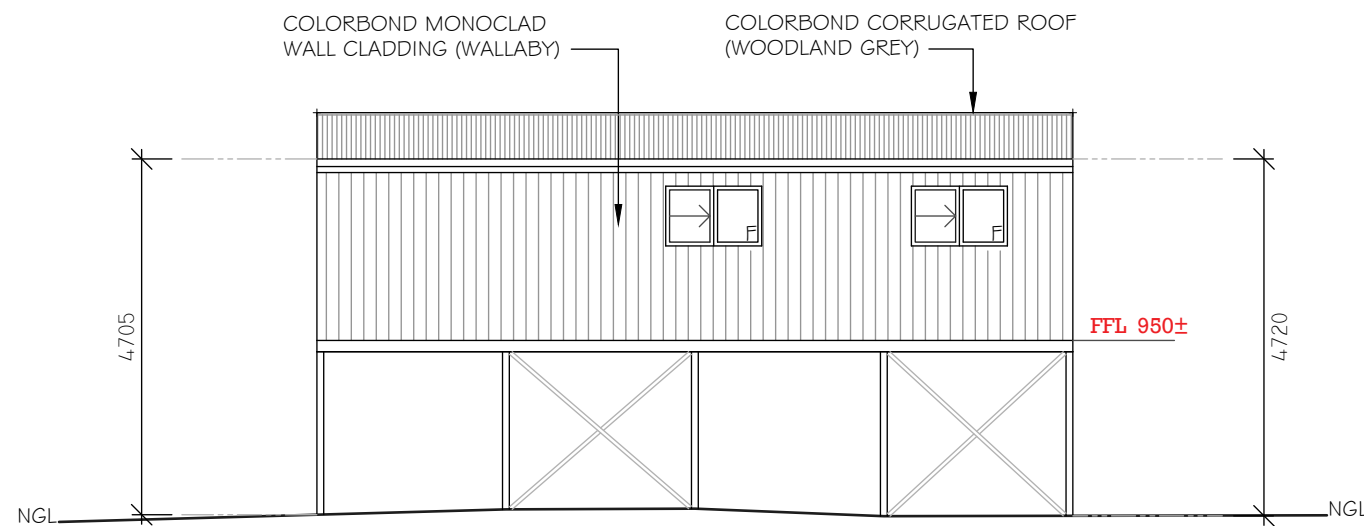


EAST ELEVATION

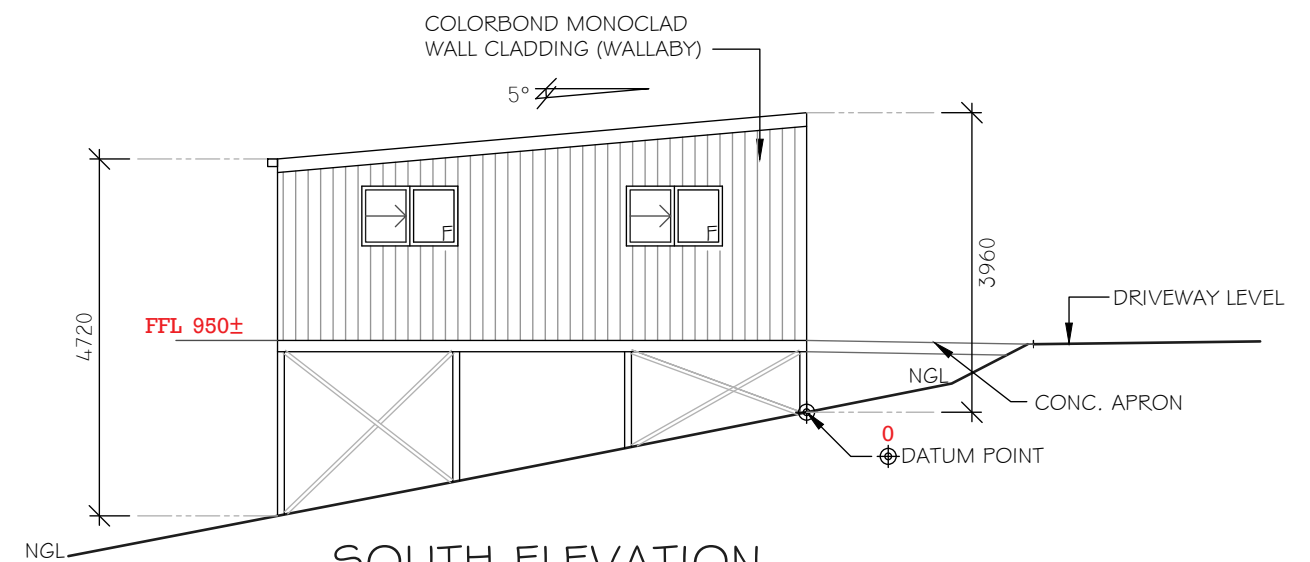


NORTH ELEVATION

- COLOURS (COLORBOND®):
- EXT. WALLS - WALLABY
  - ROOF - WOODLAND GREY
  - ROLLER DOOR - WOODLAND GREY
  - PA DOOR - WALLABY
  - WINDOW FRAME - WOODLAND GREY
  - GUTTER - WOODLAND GREY
  - CORNER FLASH - WALLABY
  - BARGE FLASHING - WOODLAND GREY
  - OPENING FLASH - WOODLAND GREY

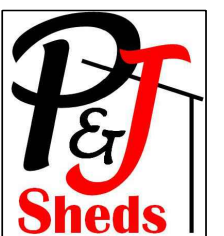


WEST ELEVATION

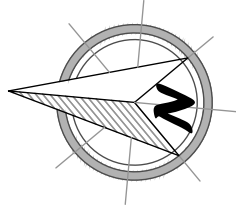


SOUTH ELEVATION

PROPOSAL : NEW OUTBUILDING / GARAGE  
 OWNER : SAT INVESTMENTS (II) PTY LTD  
 ADDRESS: 38 RUSHTON CLOSE, SANDFORD, 7020  
 SCALE: 1:100  
 DATE: 3rd JUNE 2024  
 AMENDED:  
 DRAWN BY: A. BROWN CCG003R  
 PAGE: 03/05  
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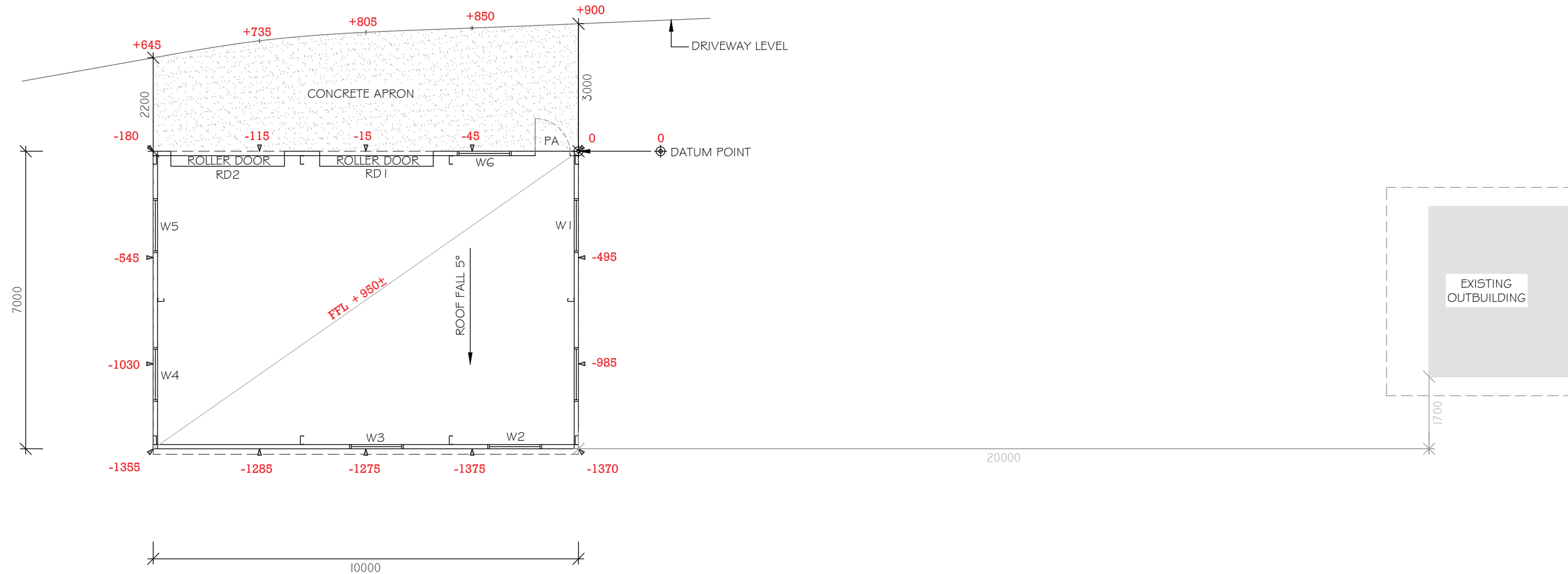


ELEVATIONS 1:100



WINDOW & DOOR SCHEDULE

	ID	HEIGHT	WIDTH
WINDOWS	W1	790mm	1270mm
	W2	"	"
	W3	"	"
	W4	"	"
	W5	"	"
	W6	"	"
ACCESS DOOR	PA	2040mm	820mm
ROLLER DOORS	RD1	2480mm	2670mm
	RD2	2480mm	2670mm

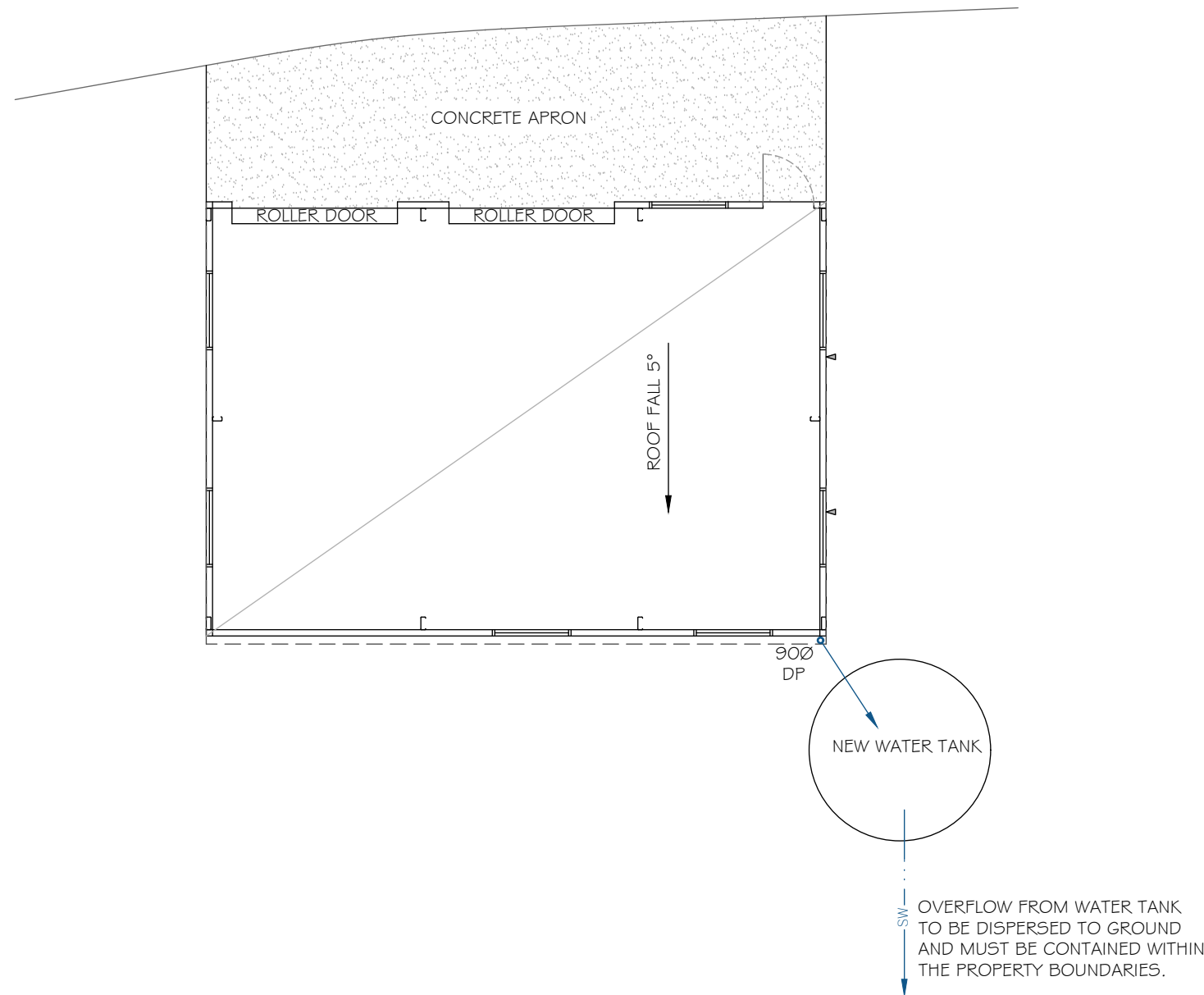
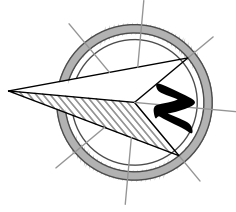


FLOOR PLAN 1:100

P&J SHEDS PTY LTD. 38 McIntyre Street, Mornington, TAS, 7018. P: (03) 62 44 4300 F: (03) 6244 4355 E: admin@fairdinkumhobart.com.au ABN: 45109681263 THIS DRAWING IS THE PROPERTY OF P&J SHEDS. © 2024

PROPOSAL : NEW OUTBUILDING / GARAGE  
 OWNER : SAT INVESTMENTS (II) PTY LTD  
 ADDRESS: 38 RUSHTON CLOSE, SANDFORD, 7020  
 SCALE: 1:100  
 DATE: 3rd JUNE 2024  
 AMENDED:  
 DRAWN BY: A. BROWN CCG003R  
 PAGE: 04/05  
 JOB NO : 16945





CONSTRUCTION GENERALLY:  
ALL CONSTRUCTION TO BE IN ACCORDANCE WITH CURRENT BUILDING REGULATIONS,  
BUILDING CODE OF AUSTRALIA (B.C.A.), RELEVANT AUSTRALIAN STANDARDS AND LOCAL  
AUTHORITY REQUIREMENTS.

SITE PREPARATION AND EXCAVATION TO COUNCIL AND B.C.A REQUIREMENTS.

CONCRETE FOOTINGS TO AS 2870.1 AND ENGINEER SPECIFICATIONS.  
UNLESS OTHERWISE SPECIFIED, FOOTINGS 20MPA / SLAB 25MPA.

STRUCTURAL; DETAILS AND CERTIFICATION AS PER 'FAIR DINKUM SHEDS'  
DOCUMENTATION.

BUILDER TO VERIFY ALL DIMENSIONS AND DETAILS ON THIS SET OF PLANS PRIOR  
TO COMMENCEMENT OF WORK ON SITE.

USE WRITTEN DIMENSIONS IN PREFERENCE TO MEASURING OFF THE PLAN.

COUNCIL / CONTRACTOR TO CONTACT P&J SHEDS IF NECESSARY INFORMATION IS  
NOT PROVIDED ON THIS SET OF PLANS.

PLUMBING GENERALLY:  
ALL PLUMBING TO BE IN ACCORDANCE WITH AS 3500,  
TAS PLUMBING CODE AND LOCAL AUTHORITY REQUIREMENTS.

100dia PVC STORM WATER TO NEW WATER TANK.  
OVERFLOW TO BE DISPERSED TO GROUND AND MUST BE  
CONTAINED WITHIN THE PROPERTY BOUNDARIES.  
PLUMBER TO VERIFY CONNECTION LOCATION WITH OWNER.

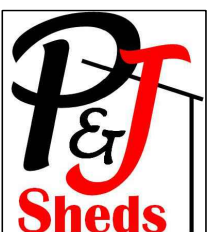
FIRST INSPECTION OPENING TO BE RAISED TO FINISHED GROUND LEVEL.

## PLUMBING PLAN 1:100

P&J SHEDS PTY LTD. 38 McIntyre Street, Mornington, TAS, 7018. P: (03) 62 44 4300 F: (03) 6244 4355 E: admin@fairdinkumhobart.com.au ABN: 45109681263 THIS DRAWING IS THE PROPERTY OF P&J SHEDS. © 2024

Document Set ID: 5270944  
Version: 1, Version Date: 04/06/2024

PROPOSAL : NEW OUTBUILDING / GARAGE  
OWNER : SAT INVESTMENTS (II) PTY LTD  
ADDRESS: 38 RUSHTON CLOSE, SANDFORD, 7020  
SCALE: 1:100  
DATE: 3rd JUNE 2024  
AMENDED:  
DRAWN BY: A. BROWN CCG003R  
PAGE: 05/05  
JOB NO : 16945



**NATURAL VALUES ASSESSMENT OF 38 RUSHTON CLOSE  
(PID 3502524; C.T. 172388/2; LPI GMQ36), SANDFORD,  
TASMANIA**



**Environmental Consulting Options Tasmania (ECOtas) for  
SAT Investments (II) Pty Ltd**

**22 March 2021**

**Mark Wapstra**

28 Suncrest Avenue

Lenah Valley, TAS 7008

**ABN 83 464 107 291**

email: [mark@ecotas.com.au](mailto:mark@ecotas.com.au)

web: [www.ecotas.com.au](http://www.ecotas.com.au)

phone: (03) 62 283 220

mobile: 0407 008 685





## **CITATION**

This report can be cited as:

ECOtas (2021). *Natural Values Assessment of 38 Rushton Close (PID 3502524; C.T. 172388/2; LPI GMQ36), Sandford, Tasmania*. Report by Environmental Consulting Options Tasmania (ECOtas) for SAT Investments (II) Pty Ltd, 22 March 2021.

## **AUTHORSHIP**

Field assessment: Mark Wapstra

Report production: Mark Wapstra

Habitat and vegetation mapping: Mark Wapstra

Base data for mapping: LISTmap

Digital and aerial photography: Mark Wapstra, GoogleEarth, LISTmap

## **ACKNOWLEDGEMENTS**

Simon Pahor & Gillian Angelo (owners) and Kristen Molhuysen provided background information on the land use proposal.

## **COVER ILLUSTRATION**

View of approximate location of proposed residence.

Please note: the blank pages in this document are deliberate to facilitate double-sided printing.



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## SUMMARY

### **General**

SAT Investments (II) Pty Ltd engaged Environmental Consulting Options Tasmania (ECOtas) to undertake a natural values assessment of 38 Rushton Close (PID 3502524; C.T. 172388/2; LPI GMQ36), Sandford, Tasmania, primarily to ensure that the requirements of the identified ecological values are appropriately considered during any further project planning under local, State and Commonwealth government approval protocols.

### **Site assessment**

A natural values assessment of the title was undertaken by Mark Wapstra (ECOtas) on 20 Mar. 2021.

### **Summary of key findings**

#### Threatened flora

- No plant species listed as threatened on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA) and/or the Tasmanian *Threatened Species Protection Act 1995* (TSPA) were detected, or are known from database information, from the study area.

#### Threatened fauna

- No fauna species listed as threatened on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA) and/or the Tasmanian *Threatened Species Protection Act 1995* (TSPA) were detected, or are known from database information, from the study area.
- The subject title supports potential habitat (to varying degrees of marginality) of several species, as follows:
  - Tasmanian devil (*Sarcophilus harrisii*);
  - spotted-tailed quoll (*Dasyurus maculatus* subsp. *maculatus*);
  - eastern quoll (*Dasyurus viverrinus*);
  - eastern barred bandicoot (*Perameles gunnii* subsp. *gunnii*);
  - masked owl (*Tyto novaehollandiae*);
  - swift parrot (*Lathamus discolor*);
  - wedge-tailed eagle (*Aquila audax* subsp. *fleayi*); and
  - grey goshawk (*Accipiter novaehollandiae*).

#### Vegetation types

- The subject title supports the following TASVEG mapping unit:
  - *Eucalyptus tenuiramis* forest and woodland on sediments (TASVEG code: DTO).

- DTO is listed as threatened on Schedule 3A of the Tasmanian *Nature Conservation Act 2002*, but does not equate to a threatened ecological community under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

#### Weeds

- No plant species classified as declared weeds (within the meaning of the Tasmanian *Weed Management Act 1999*) or as environmental weeds (author opinion) were detected from the study area.

#### Plant disease

- No evidence of *Phytophthora cinnamomi* (PC, rootrot) was recorded within the study area.
- No evidence of myrtle wilt was recorded from within the study area.
- No evidence of myrtle rust was recorded from within the study area.

#### Animal disease (chytrid)

- The part of the subject title proposed for development does not support habitats particularly conducive to frog chytrid disease.

### **Recommendations**

The recommendations provided below are a summary of those provided in relation to each of the ecological features described in the main report. The main text of the report provides the relevant context for the recommendations.

#### Vegetation types

In general terms, minimising the extent of “clearance and conversion” and/or “disturbance” to native vegetation is recommended.

In addition, retention of hollow-bearing trees, stags, stumps and coarse woody debris wherever practical is strongly recommended for species such as hollow-nesting vertebrates and ground-dwelling mammals.

#### Threatened flora

None identified – no special management required.

#### Threatened fauna

Apart from the generic recommendation to minimise the extent of “clearance and conversion” and/or “disturbance” to native vegetation, no special management is recommended.

#### Weed and disease management

Any works within the title are unlikely to exacerbate the contemporary weed distribution, diversity and density within the title or cause a proliferation in neighbouring areas, simply because of the existing low density (virtual absence) of such species. However, any works have the potential to introduce weeds through machinery, vehicles and personnel. Strict hygiene protocols are recommended. However, beyond this measure, special management (e.g. a complex weed

management plan) is not considered warranted Owner-occupation is considered the most appropriate long-term management option, where vigilance and immediate control are practical.

Legislative and policy implications

There are no formal requirements for a permit under Section 51 of the Tasmanian *Threatened Species Protection Act 1995* (TSPA).

A formal referral to the Commonwealth Department of Agriculture, Water and the Environment under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA) is not considered required.

Development will require a planning permit pursuant to the provisions of the *Clarence Interim Planning Scheme 2015*. I have examined the provisions of the Natural Assets Code and have concluded that the proposal is satisfactory and do not make any specific recommendations.





## PURPOSE, SCOPE, LIMITATIONS AND QUALIFICATIONS OF THE SURVEY

### **Purpose**

SAT Investments (II) Pty Ltd engaged Environmental Consulting Options Tasmania (ECOtas) to undertake a natural values assessment of 38 Rushton Close (PID 3502524; C.T. 172388/2; LPI GMQ36), Sandford, Tasmania, primarily to ensure that the requirements of the identified ecological values are appropriately considered during any further project planning under local, State and Commonwealth government approval protocols.

### **Scope**

This report relates to:

- flora and fauna species of conservation significance, including a discussion of listed threatened species (under the Tasmanian *Threatened Species Protection Act 1995* and/or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*) potentially present, and other species of conservation significance/interest;
- vegetation types (forest and non-forest, native and exotic) present, including a discussion of the distribution, condition, extent, composition and conservation significance of each community;
- plant and animal disease management issues;
- weed management issues; and
- a discussion of some of the policy and legislative implications of the identified ecological values.

This report follows the government-produced *Guidelines for Natural Values Surveys – Terrestrial Development Proposals* (DPIPWE 2015) in anticipation that the report (or extracts of it) may be required as part of various approval processes.

The report format should also be applicable to other assessment protocols as required by the Commonwealth Department of Agriculture, Water and the Environment (for any referral/approval that may be required under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*), which is unlikely to be required in this case.

More specifically, this assessment and report have been prepared to address specific provisions of the *Clarence Interim Planning Scheme 2015*, with particular reference to the natural values/biodiversity provisions of the Natural Assets Code.

### **Limitations**

The ecological assessment was undertaken on 20 Mar. 2021. Many plant species have ephemeral or seasonal growth or flowering habits, or patchy distributions (at varying scales), and it is possible that some species were not recorded for this reason. However, every effort was made to sample the range of habitats present in the survey area to maximise the opportunity of recording most species present (particularly those of conservation significance). Late spring and into summer is usually regarded as the most suitable period to undertake most botanical assessments. While some species have more restricted flowering periods, a discussion of the potential for the site to support

these is presented. In this case, I believe that the survey was appropriately timed to detect the species with a highest priority for conservation management in this part of the State.

The survey was also limited to vascular species: species of mosses, lichens and liverworts were not recorded. However, a consideration is made of threatened species (vascular and non-vascular) likely to be present (based on habitat information and database records) and reasons presented for their apparent absence.

Surveys for threatened fauna were largely limited to an examination of "potential habitat" (i.e. comparison of on-site habitat features to habitat descriptions for threatened fauna), and detection of tracks, scats and other signs.

The survey was not limited by access due to the limited extent of the title and generally open vegetation.

### **Qualifications**

Except where otherwise stated, the opinions and interpretations of legislation and policy expressed in this report are made by the author and do not necessarily reflect those of the relevant agency. The client should confirm management prescriptions with the relevant agency before acting on the content of this report. This report and associated documents do not constitute legal advice.

### **Permit**

Any plant material was collected under DPIPW permit TFL 20167 (in the name of Mark Wapstra). Relevant data will be entered into DPIPW's *Natural Values Atlas* database by the author. Some plant material may be lodged at the Tasmanian Herbarium by the author.

No vertebrate or invertebrate material was collected.

## **STUDY AREA & LAND USE PROPOSAL**

The study area comprises the private title of 38 Rushton Close, Sandford, Tasmania (Figures 1-3), with the following cadastral details:

- PID 3502524; C.T. 172388/2; LPI GMQ36 (215,900 m<sup>2</sup> i.e. ca. 21.59 ha).

Land tenure and other categorisations of the study area are as follows:

- City of Clarence municipality, with the subject title zoned as Rural Resource pursuant to the *Clarence Interim Planning Scheme 2015* (Figure 4), and wholly subject to the Biodiversity Protection Area overlay (Figure 5); other overlays may also be applicable but are not considered in the scope of the present report;
- South East Bioregion, according to the IBRA 7 bioregions used by most government agencies); and
- NRM South Natural Resource Management (NRM) region.

The title is bound on all sides by private titles (Rushton Close cul-de-sac to the immediate north). The eastern boundary is partially fenced.

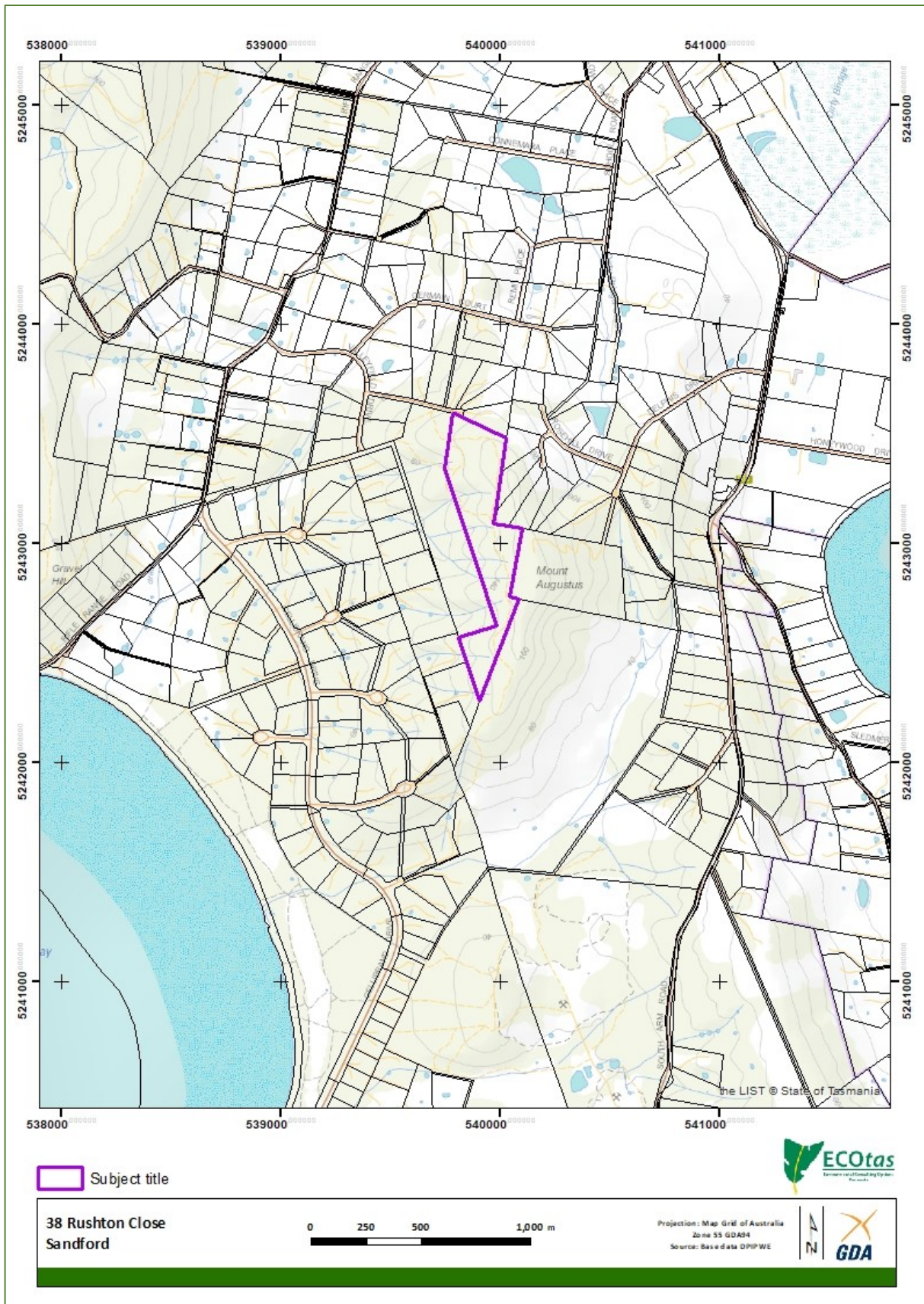
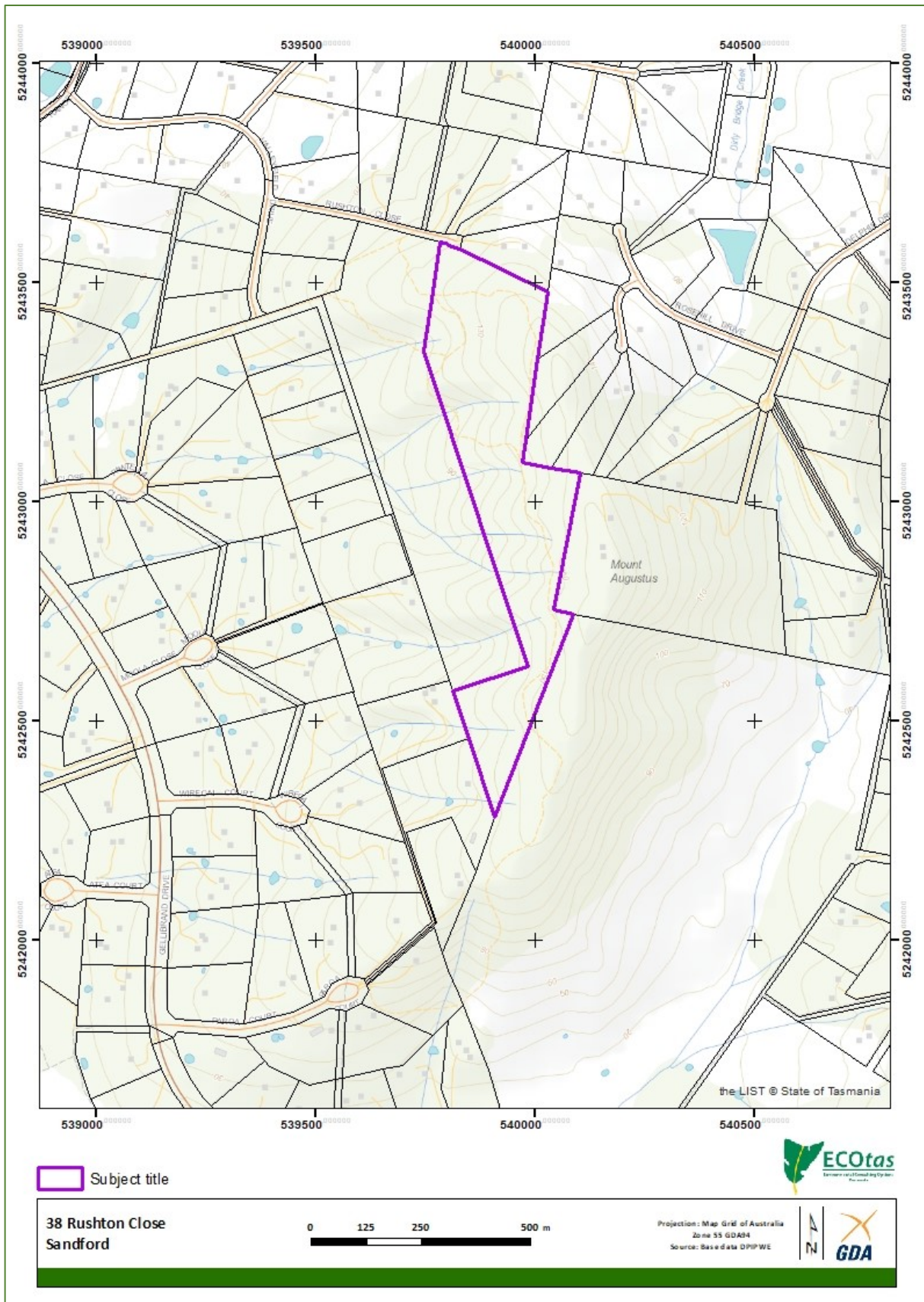
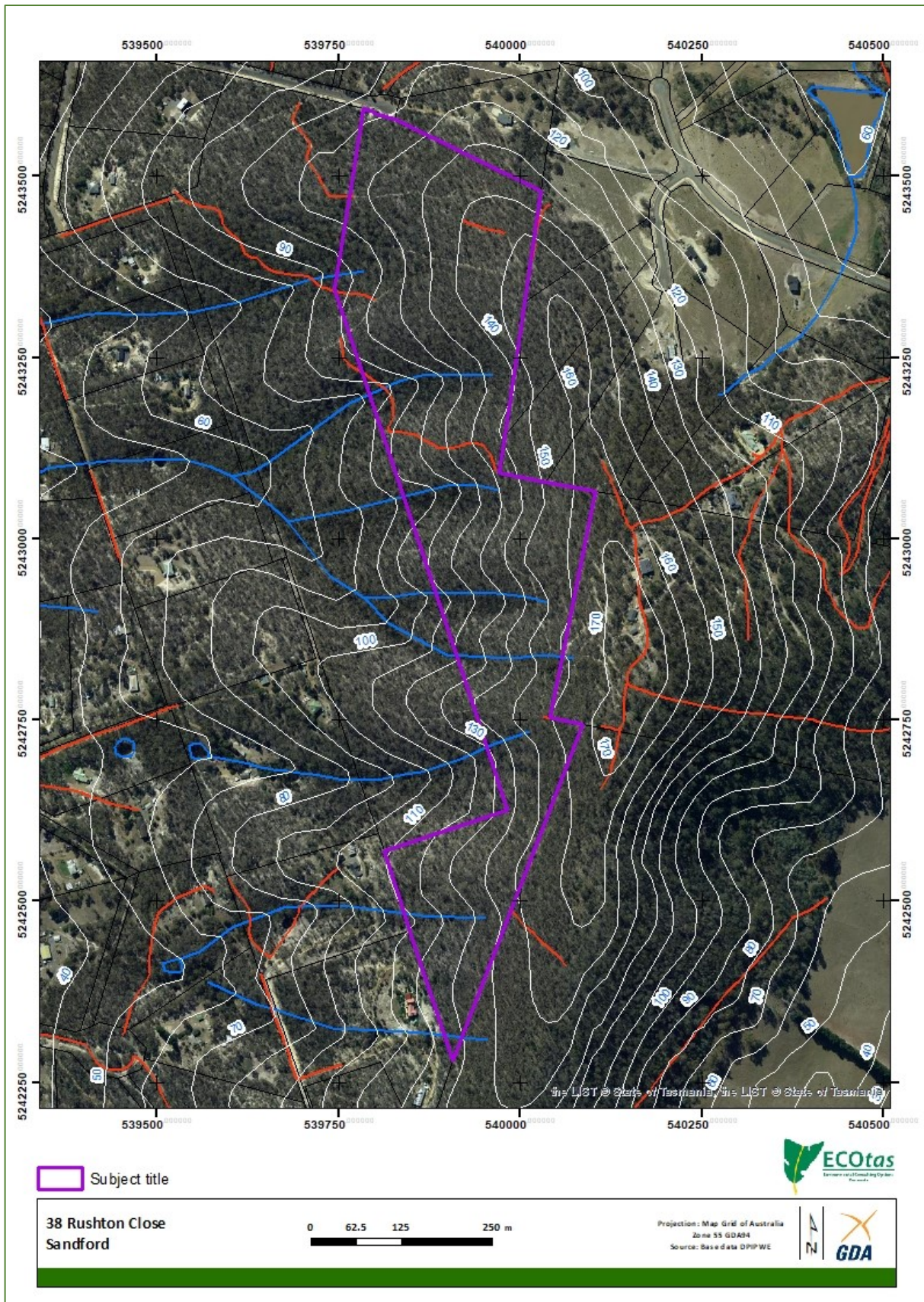


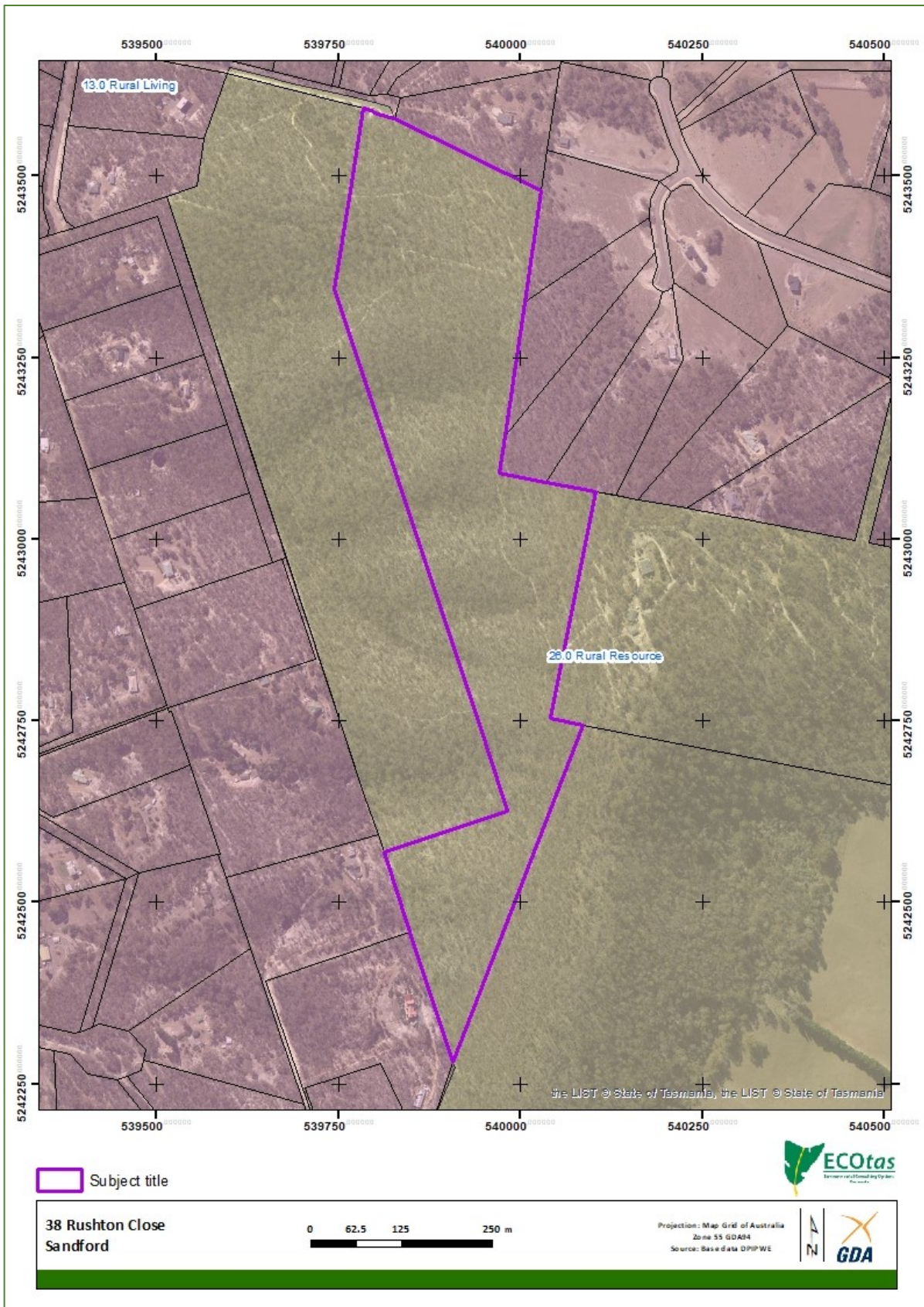
Figure 1. General location of the study area



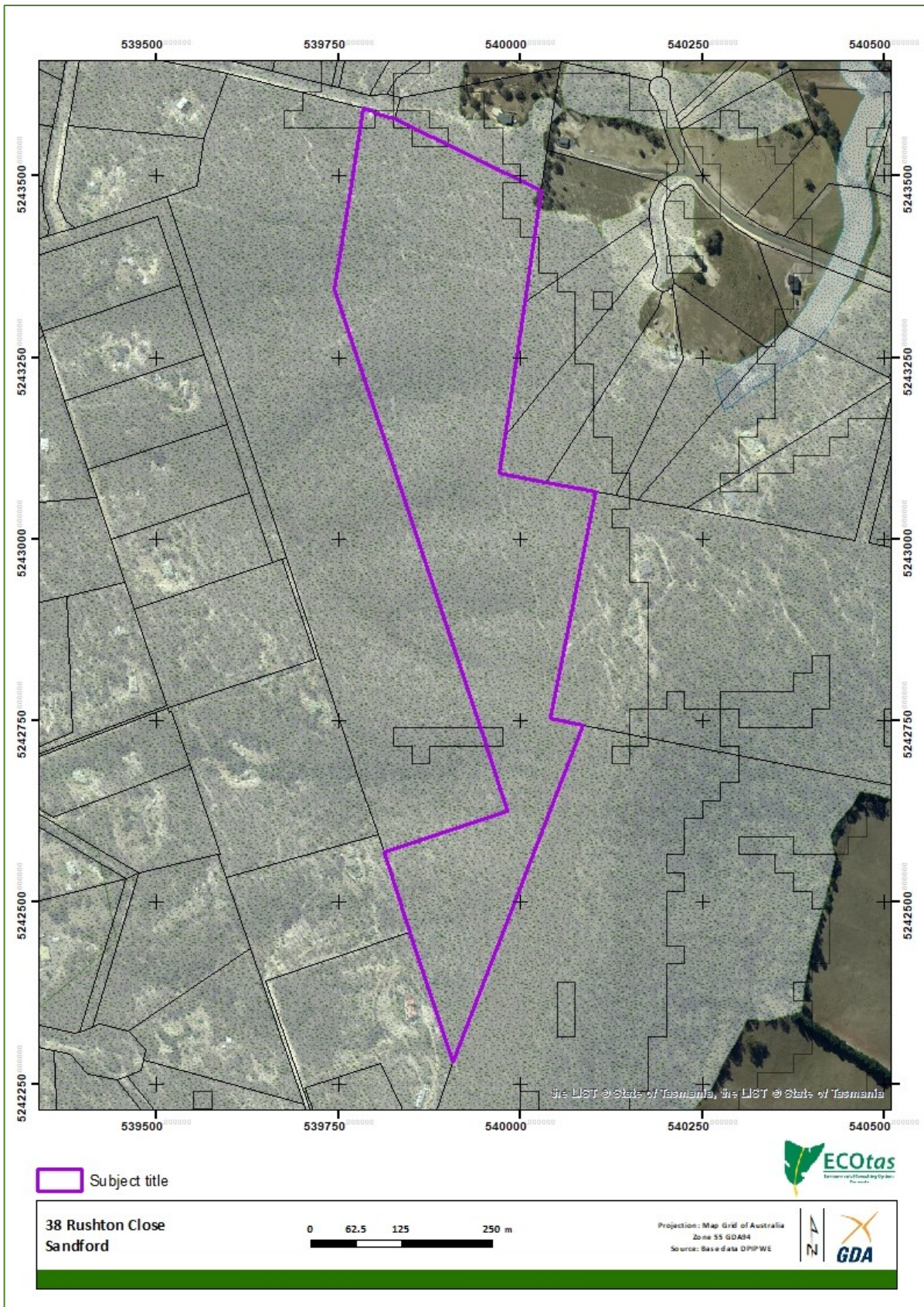
**Figure 2.** Detailed location of the study area showing general topographic and cadastral features



**Figure 3.** Detailed location of the study area – showing recent aerial imagery and cadastral boundaries



**Figure 4.** Zoning of subject title and surrounds pursuant to the *Clarence Interim Planning Scheme 2015* [source: LISTmap]



**Figure 5.** Extent of Biodiversity Protection Area overlay within subject title and surrounds pursuant to the *Clarence Interim Planning Scheme 2015* [source: LISTmap]

The topography of the title is generally west-facing gentle to moderate slopes forming the upper slopes of Mount Augustus (off-title to the east), with elevation varying from ca. 85 m a.s.l. (western boundary, drainage feature) to ca. 165 a.s.l. (near Mount Augustus). Topographic maps indicate eight minor drainage features, all ephemeral (perhaps marginally flood-prone only) in nature.

The title supports homogenous native vegetation with a remarkably similar structure and composition throughout (Plates 1 & 2). While aerial imagery indicates the gullies are “darker” suggesting a different vegetation type is present, site assessment indicated that these are merely the same vegetation type with a marginally different understorey denser with *Allocasuarina littoralis* (Plates 3 & 4).



**Plates 1 & 2.** Typical native vegetation of the slopes within the subject title



**Plates 3 & 4.** Denser understorey of vegetation within gullies

Several old and minor tracks dissect the title, only marginally visible on aerial imagery i.e. the canopy and understorey is virtually continuous (e.g. Plates 5 & 6). It may be possible to partially utilise these tracks to access the dwelling location, although this will need to take account of slopes, landskip risk and other factors. The tracks probably represent the historical use of this part of the South Arm peninsula for “rough grazing” of stock and/or firewood collection.

LISTmap’s Fire History layer indicates no recorded fire events. This does not accord with site assessments that indicated a fire ca. 50 years ago (presumably part of the Feb. 1967 wildfire event) in the form of burnt out bases of larger trees (Plates 7 & 8) and the largely regrowth-structured



form of the forest. The fact that the canopy is low is indicative of the low nutrient status of the soils, the high insolation of most of the site and the slow natural growth of *Eucalyptus tenuiramis* (often from coppice off a lignotuber).

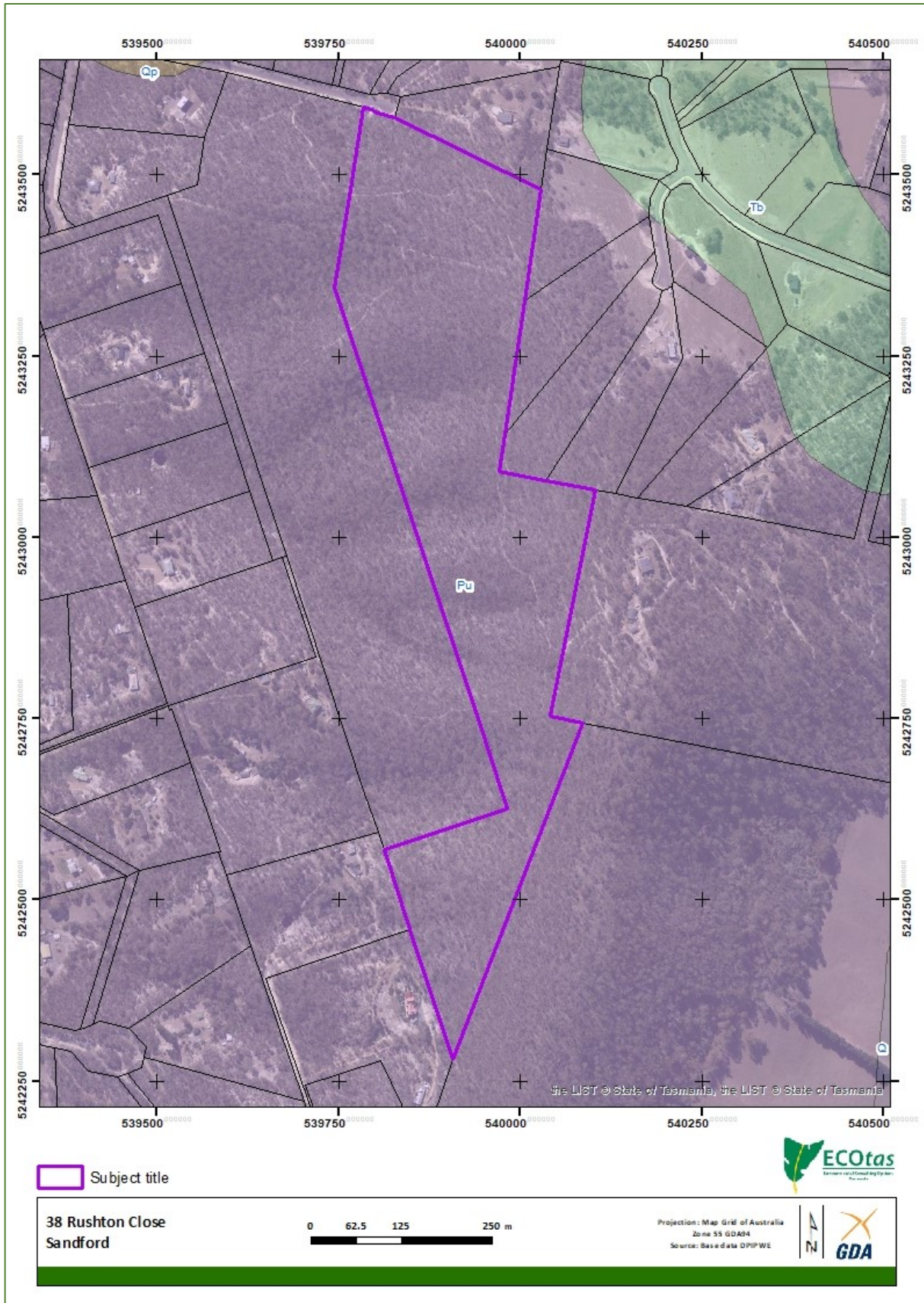


**Plates 5 & 6.** Examples of tracks through title

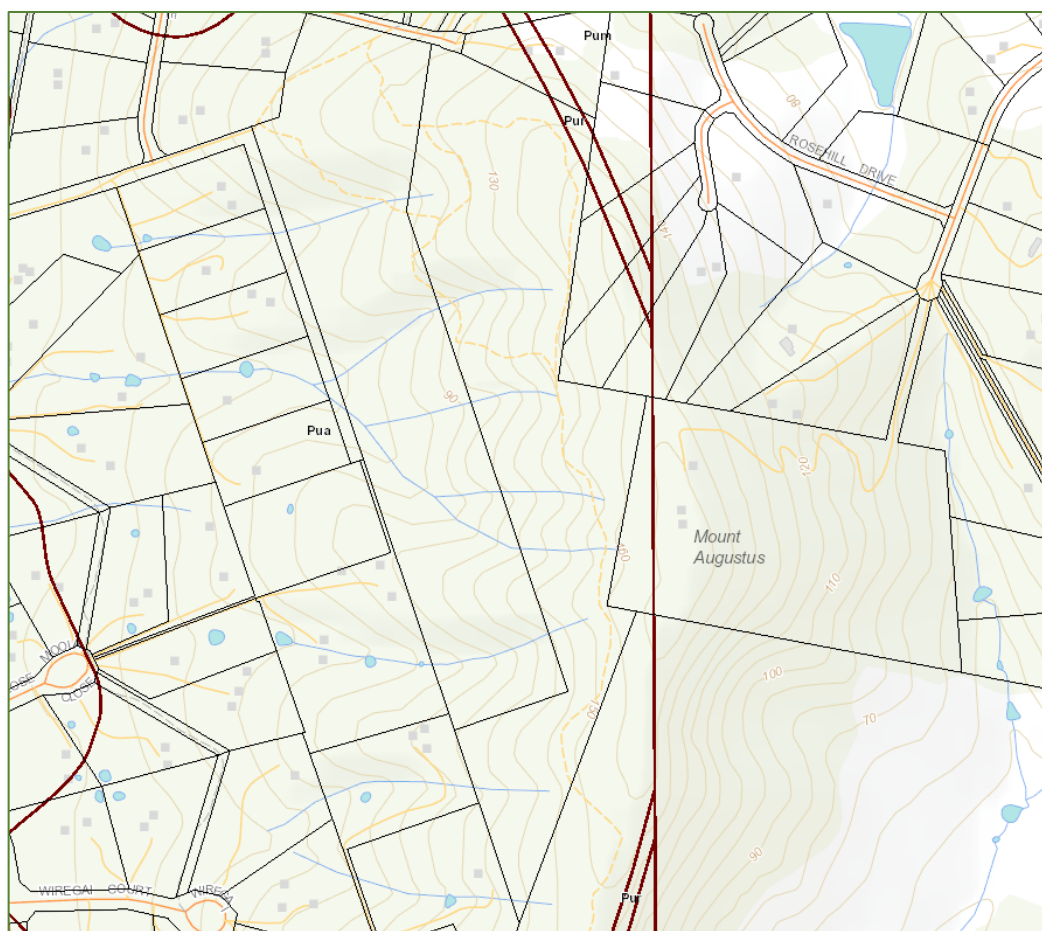


**Plates 7 & 8.** Examples of burnt out bases of larger trees indicative of a severe wildfire ca. 50 years ago (note also the regrowth structure of the forest seen in other plates)

The geology of the title is wholly mapped at a 1:250,000 scale (Figure 6) as Permian-age "upper glaciomarine sequences of pebbly mudstone, pebbly sandstone and limestone" (geocode: Pu), with this identified at a finer-scale (1:25,000, as per LISTmap; Figure 7) as Permian-age "generally unfossiliferous glaciomarine interbedded non-fissile and fissile siltstone and silty sandstone, with



**Figure 6.** 1:250,000 scale geological mapping for subject title and surrounds (refer to text for codes)



**Figure 7.** 1:25,000 scale geological mapping for subject title and surrounds (refer to text for codes)

common bioturbation and lonestones, rare pebbly beds and fossiliferous beds; top beds of laminated grey to brown siltstone” (geocode: Pua) and the far northeast corner mapped as band of similar units (coded as Pur and Pum). This sedimentary geology was confirmed by site assessment by reference to rock exposures in cuttings, regolith and soil types (e.g. Plates 9 & 10). The geology is mentioned because it can have a strong influence on the classification of vegetation and the potential occurrence of threatened flora (and to a lesser extent, threatened fauna).



**Plates 9 & 10.** Examples of exposed fine-grained sedimentary rocks and loose sand-clay soil

## **LAND USE PROPOSAL**

Within the study area, the proposal is to construct a single residential dwelling, within the northern portion of the title (to minimise access requirements), accessed from the end of the Rushton Close cul-de-sac, with a hazard management area, presumably to satisfy a BAL 19 or 29 rating. The balance of the title will remain "as is" i.e. native vegetation in various states of modification. At the stage of site assessment, the precise location of the residential dwelling and access has not been decided. Therefore, alternative sites (and a wide area around each of these), as well as a contextual assessment of the balance of the title, were assessed such that a follow-up site assessment will not be needed, irrespective of where the final dwelling is located (remarkably homogeneous structure and composition of the vegetation).

## **METHODS**

### ***Nomenclature***

All grid references in this report are in GDA94, except where otherwise stated.

Vascular species nomenclature follows de Salas & Baker (2020) for scientific names and Wapstra et al. (2005+) for common names. Fauna species scientific and common names follow the listings in the cited *Natural Values Atlas* report (DPIPWE 2021).

Vegetation classification follows TASVEG 4.0, as described in *From Forest to Fjaeldmark: Descriptions of Tasmania's Vegetation* (Kitchener & Harris 2013+).

### ***Preliminary investigation***

Available sources of previous reports, threatened flora records, vegetation mapping and other potential environmental values were interrogated. These sources include:

- Tasmanian Department of Primary Industries, Parks, Water & Environment's *Natural Values Atlas* records for threatened flora and fauna (GIS coverage maintained by the author current as at date of report);
- Tasmanian Department of Primary Industries, Parks, Water & Environment's *Natural Values Atlas* report ECOtas\_38RushtonClose for a polygon defining the title (centred on 539925mE 5243039mN), buffered by 5 km, dated 20 Mar. 2021 (DPIPWE 2021) – Appendix E;
- Forest Practices Authority's *Biodiversity Values Database* report, specifically the species' information for grid reference centroid 539925mE 5243039mN (i.e. a point defining the centre of the NVA report), buffered by 5 km and 2 km for threatened fauna and flora records, respectively, hyperlinked species' profiles and predicted range boundary maps, dated 20 Mar. 2021 (FPA 2021) – Appendix F;
- Commonwealth Department of Agriculture, Water & the Environment's *Protected Matters Report* for a polygon defining the title, buffered by 5 km, dated 20 Mar. 2021 (CofA 2021) – Appendix G;
- the TASVEG 4.0 vegetation coverage (as available through GIS coverage and via LISTmap);
- GoogleEarth and LISTmap aerial orthoimagery; and
- other sources listed in tables and text as indicated.

## ***Field assessment***

The assessment was undertaken by Mark Wapstra (ECOtas) on 20 Mar. 2021.

Cadastral data uploaded to the iGIS application guided the in-field assessment as only some of the boundaries are formally defined by fences or other survey markers.

The assessment focussed on the part of the title proposed for development but included a relatively detailed examination of the balance of the title to provide context to all findings.

### Vegetation classification

The structure and composition of the vegetation types was described using nominal 30 m radius plots at a representative site within the vegetation type, and compiling "running" species lists for the remainder of the title.

### Threatened flora

With reference to the threatened flora, the survey included consideration of the most likely habitats for such species. Further details are not provided because no such species were detected.

### Threatened fauna

Surveys for threatened fauna were largely limited to an examination of "potential habitat" (i.e. comparison of on-site habitat features to habitat descriptions for threatened fauna), and detection of tracks, scats and other signs.

### Weed and hygiene issues

The title was also assessed with respect to plant species classified as declared weeds under the Tasmanian *Weed Management Act 1999*, Weeds of National Significance (WoNS) or "environmental weeds" (author opinion and as included in *A Guide to Environmental and Agricultural Weeds of Southern Tasmania*, NRM South 2017).

The site was also assessed with respect to potential impacts of plant and animal pathogens, by reference to habitat types and field symptoms.

## **FINDINGS**

### ***Vegetation types***

#### Comments on TASVEG mapping

This section, which comments on the existing TASVEG 4.0 mapping for the study area, is included to highlight the differences between existing mapping and the more recent mapping from the

present study to ensure that any parties assessing land use proposals (via this report) do not rely on existing mapping. Note that TASVEG mapping, which was mainly a desktop mapping exercise based on aerial photography, is often substantially different to ground-truthed vegetation mapping, especially at a local scale. An examination of existing vegetation mapping is usually a useful pre-assessment exercise to gain an understanding of the range of habitat types likely to be present and the level of previous botanical surveys.

TASVEG 4.0 maps the subject title wholly as (Figure 7) *Eucalyptus tenuiramis* forest and woodland on sediments (TASVEG code: DTO), the only minor difference to TASVEG 3.0 is that the far northeast corner that was mapped as agricultural land (TASVEG code: FAG) has been corrected to DTO (that polygon reflected the green-white mapping shown on older topographic/cadastral maps but not aerial imagery).

Vegetation type recorded as part of the present study

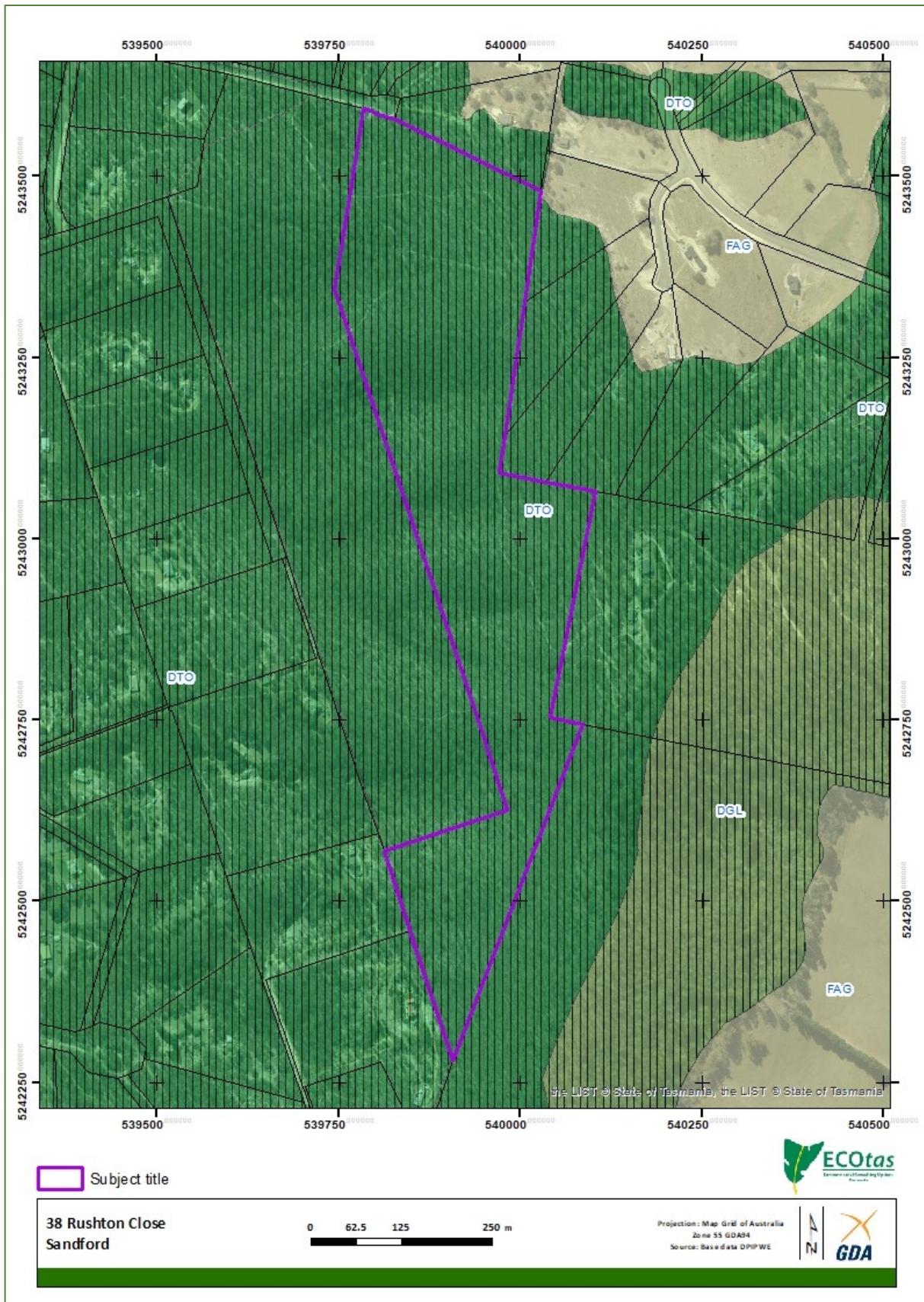
The vegetation type has been classified according to TASVEG 4.0, as described in *From Forest to Fjaeldmark: Descriptions of Tasmania's Vegetation* (Kitchener & Harris 2013+). Table 1 provides information on the vegetation type identified from the subject title. Refer to Appendix A for a more detailed description of the native vegetation mapping unit identified from the subject title.

The whole title was confirmed as *Eucalyptus tenuiramis* forest and woodland on sediments (TASVEG code: DTO).

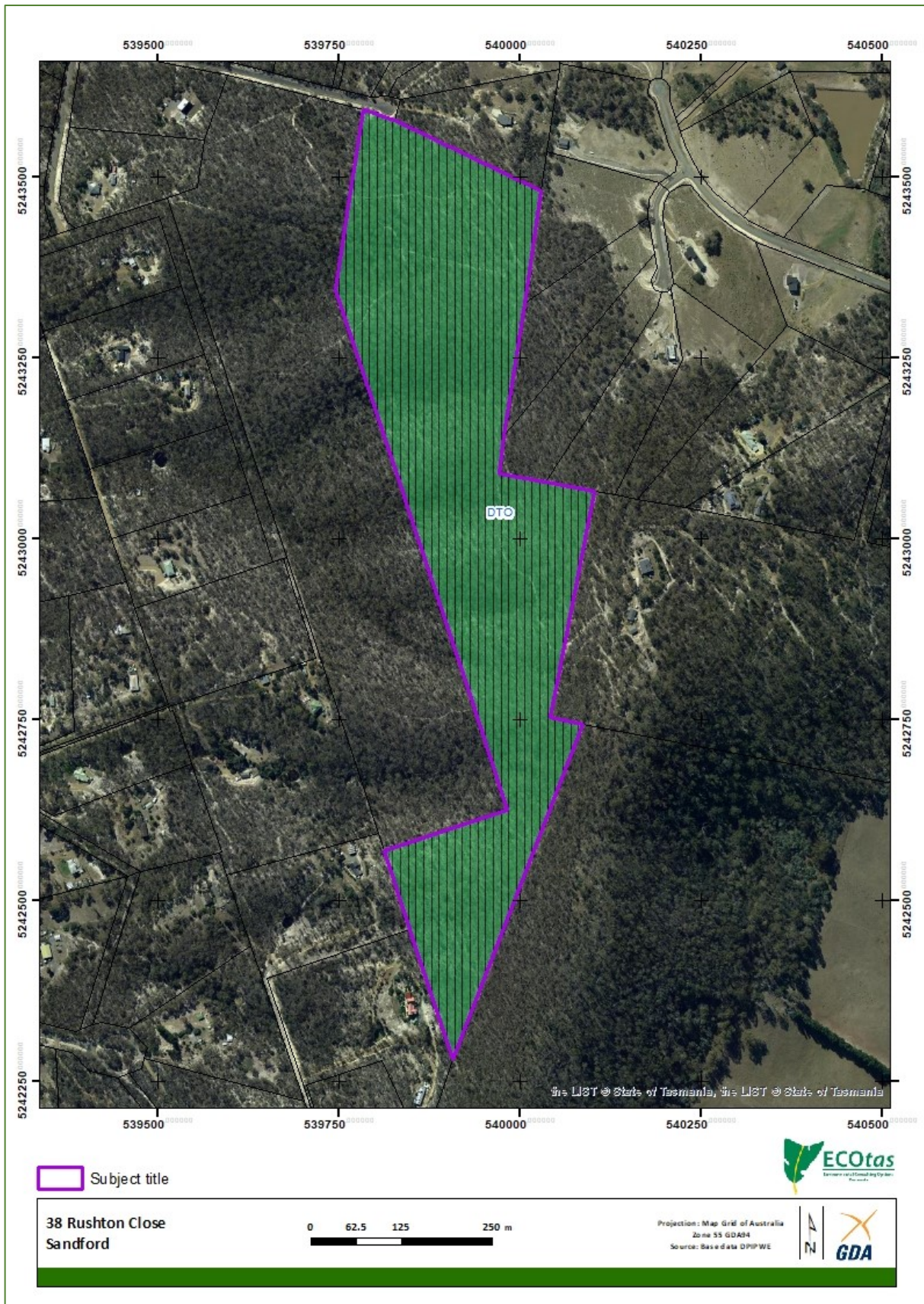
**Table 1.** Vegetation mapping unit present in the subject title

[conservation status: NCA – as per Schedule 3A of the *Tasmanian Nature Conservation Act 2002*, using units described by Kitchener & Harris (2013+), relating to TASVEG mapping units (DPIPWE 2020); EPBCA – as per the listing of ecological communities on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, relating to communities as described under that Act, but with equivalencies to TASVEG units]

TASVEG equivalent (Kitchener & Harris 2013+)	Conservation priority TASVEG EPBCA	Comments
<b>Dry eucalypt forest and woodland</b>		
<p><i>Eucalyptus tenuiramis</i> forest and woodland on sediments (DTO)</p>	<p>threatened <i>not threatened</i></p>	<p>DTO occupies the whole title. Most of the DTO is expressed as a woodland-forest facies of relatively low stature with a very open understorey (i.e. typical expression of DTO). The understorey has a high cover of bare ground as well as reasonably large amounts of coarse woody debris. Fire history (and probably grazing and/or firewood collecting) have reduced older-growth elements to scattered trees, stags and stumps.</p> <p>Aerial imagery indicates that the gullies are "darker", perhaps indicative of a different vegetation type. In reality, these gullies are still DTO, simply with a denser understorey of <i>Allocasuarina littoralis</i>, <i>Acacia melanoxylon</i> and <i>Pteridium esculentum</i>.</p> <p>DTO is in remarkably good condition – most properties on the South Arm peninsula with DTO support moderate to dense populations of boneseed and bluebell creeper (this title appears to be free of these species).</p>



**Figure 7.** Study area and surrounds showing existing TASVEG 4.0 vegetation mapping (see text for codes)



**Figure 8.** Confirmed vegetation mapping for subject title (refer to text for codes)



### Conservation significance of identified vegetation types

The vegetation community recorded from the subject title does not equate to a threatened ecological community under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA).

DTO is listed as threatened on Schedule 3A of the Tasmanian *Nature Conservation Act 2002*. The proposed development will have a minor impact on DTO (see **DISCUSSION Legislative and policy implications** for a more detailed review).

### **Plant species**

#### General information

A total of 72 vascular plant species were recorded from the subject title (Appendix B), comprising 49 dicotyledons (including 1 endemic and 3 naturalised species), 22 monocotyledons (all native) and 1 pteridophyte (native).

The diversity was highly typical of low nutrient (sedimentary substrate) soils in this drier part of the State. The very low diversity of naturalised species is notable, especially for the South Arm area, with just three naturalised species recorded (and these all exceedingly sparse).

Additional surveys at different times of the year may detect additional short-lived herbs and grasses but a follow-up survey is not considered warranted because of the small disturbance footprint and low likelihood of species with a high priority for conservation management being present.

#### Threatened flora species recorded from the study area

No flora species listed as threatened on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA) and/or the Tasmanian *Threatened Species Protection Act 1995* (TSPA) are known from database information (Figure 9), or were detected as a consequence of the field survey, from the study area.

#### Threatened flora species potentially present (database analysis)

Figure 9 indicates threatened flora species near to the study area and Table C1 (Appendix C) provides a listing of threatened flora from within 5,000 m of the study area (nominal buffer width usually used to discuss the potential of a particular study area to support various species listed in databases), with comments on whether potential habitat is present for the species, and possible reasons why a species was not recorded.

The following comments are made in relation to *Caladenia filamentosa* (daddy longlegs). Potential habitat widespread and superficially similar to known sites on the South Arm peninsula including near Paroa Court The record near Moola Close is possibly a database duplicate of the Paroa Court population). The survey was conducted outside the peak flowering period (Wapstra 2018) but a timed-targeted survey is not considered warranted because of the statically very low likelihood of occurrence at any particular development site. The species has a naturally disjunct distribution with potential habitat exceedingly widespread in eastern Tasmania. Where it does occur, it tends to be

highly localised and detection is serendipitous. I note the generous offer to access the property to undertake further surveys. I also offered to identify any plant species (especially orchids, which I expect to be more diverse than indicated by the current survey) at any time. If *Caladenia filamentosa* is detected, at that time we can develop suitable management (e.g. protect from browsing and trampling by caging).

### **Threatened fauna**

#### Threatened fauna species recorded from the study area

No fauna species listed as threatened on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA) and/or the Tasmanian *Threatened Species Protection Act 1995* (TSPA) are known from database information (Figure 10), or were detected as a consequence of the field survey, from the study area.

The vegetation types present have some (minor) association with threatened fauna (refer section below and Table D1).

#### Threatened fauna species potentially present (database analysis)

Figure 10 indicates threatened fauna species near to the study area and Table D1 (Appendix D) provides a listing of threatened fauna from within 5,000 m of the study area (nominal buffer width usually used to discuss the potential of a particular study area to support various species listed in databases), with comments on whether potential habitat is present for the species, and possible reasons why a species was not recorded.

Site assessment indicated that the title supports ubiquitous (marginal) potential habitat for a suite of threatened fauna species. This includes potential habitat of species such as *Sarcophilus harrisii* (Tasmanian devil), *Dasyurus maculatus* subsp. *maculatus* (spotted-tailed quoll), *Dasyurus viverrinus* (eastern quoll), *Perameles gunnii* subsp. *gunnii* (eastern barred bandicoot), *Tyto novaehollandiae* (masked owl), *Accipiter novaehollandiae* (grey goshawk) and *Aquila audax* (wedge-tailed eagle). Small-scale development, essentially within the existing disturbed part of the title, is not anticipated to have a significant deleterious impact on these species.

That said, as discussed on site, retention of hollow-bearing trees, stags, stumps and coarse woody debris wherever practical is strongly recommended for species such as hollow-nesting vertebrates and ground-dwelling mammals.

With specific reference to *Aquila audax* subsp. *fleayi* (Tasmanian wedge-tailed eagle), there is a known nest on the property to the east of the subject title (Figure 11). This nest site (RND #2823, David James, 15 Mar. 2020) is located on the slopes/gully southeast of Mount Augustus. This nest is ca. 850 m from any proposed development site and completely not within line-of-sight. That is, development in the northern portion of the title will be well outside the nominal 500 m buffer often applied to the management of nests such that special management will not be warranted.



**Figure 9a.** Distribution of threatened flora close to the study area (overview)

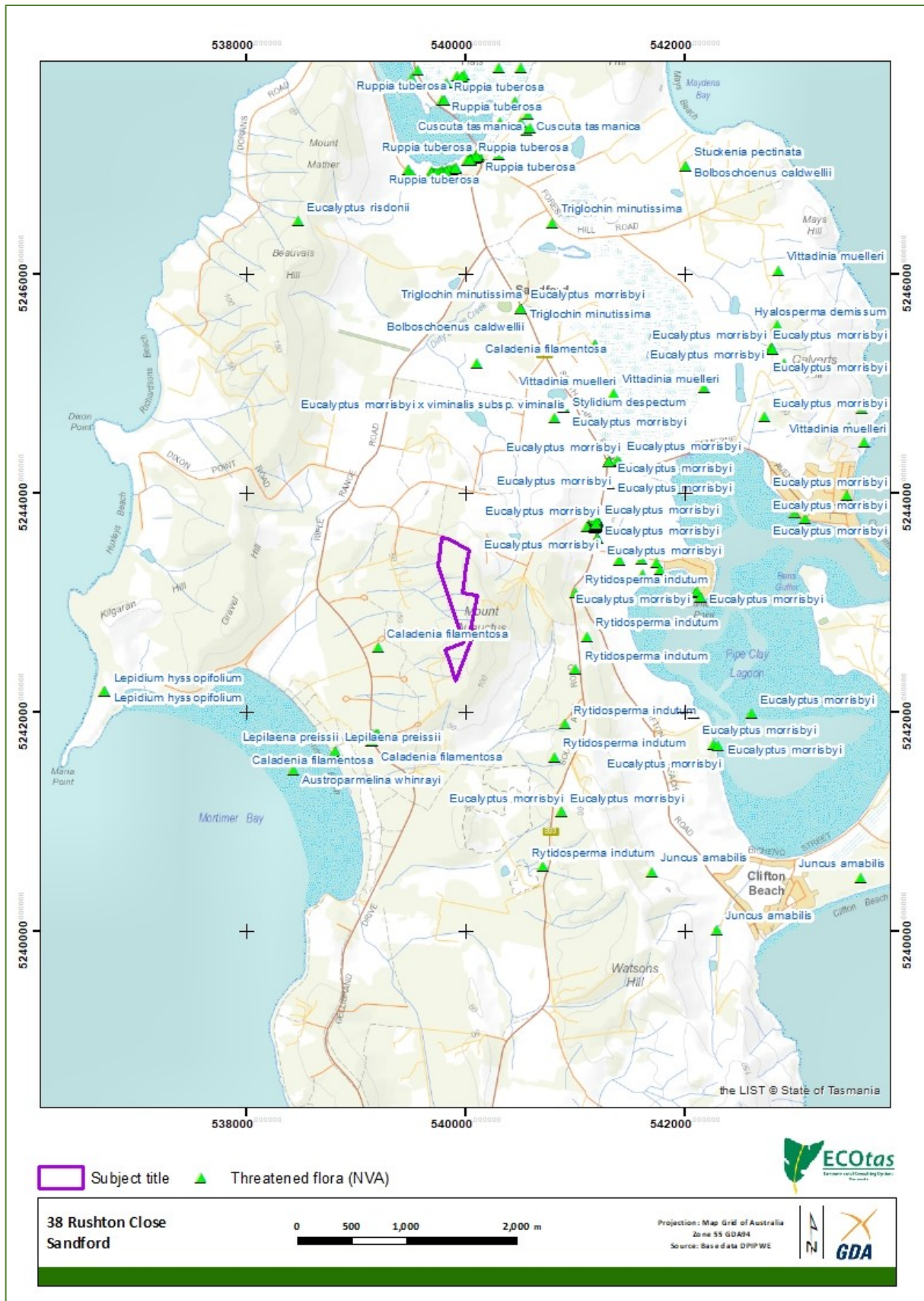
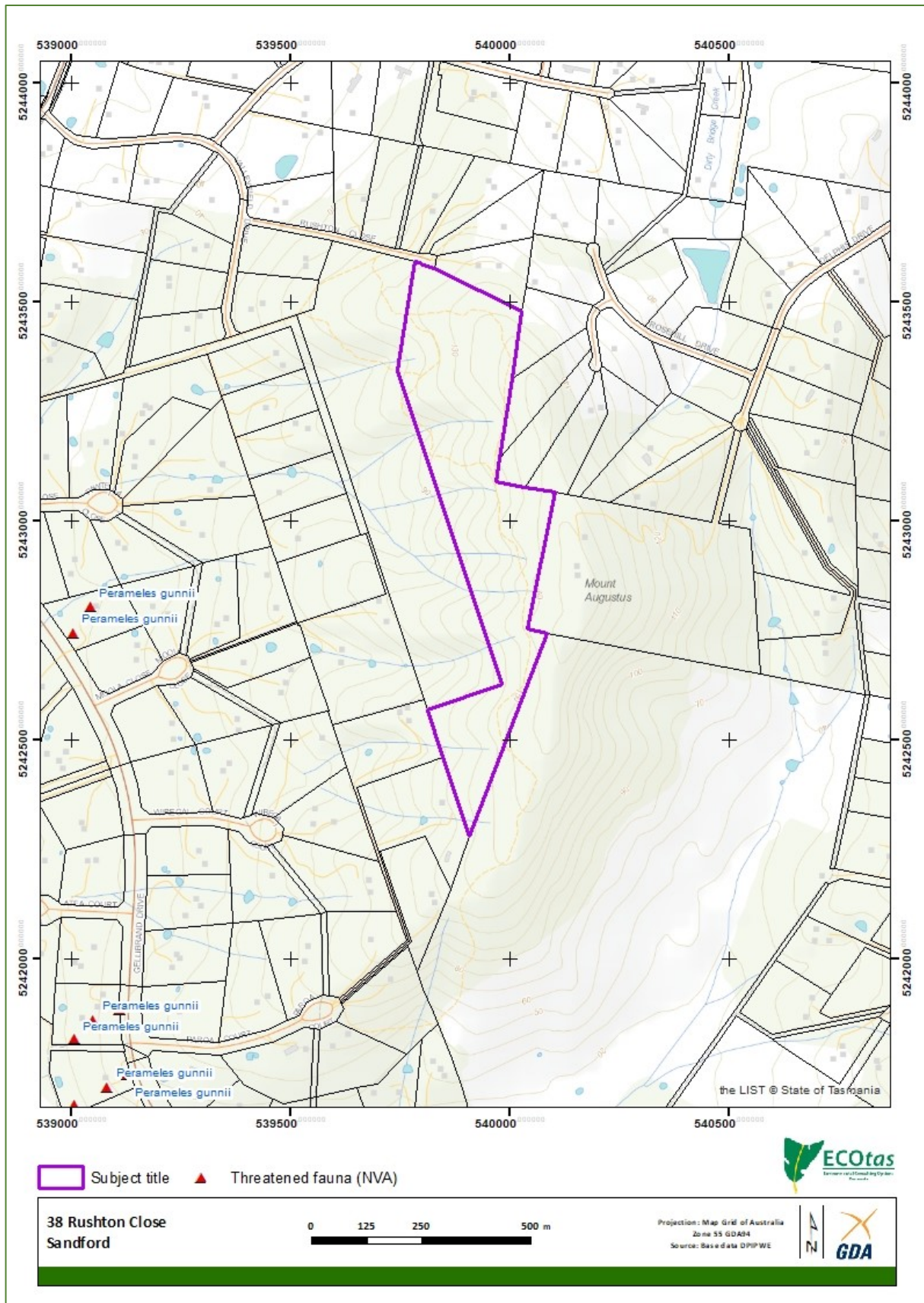


Figure 9a. Distribution of threatened flora close to the study area (closer)





**Figure 10b.** Distribution of threatened fauna close to the study area (closer)



**Figure 11.** Location of known wedge-tailed eagle nest and nominal 500 m management zone

## Other ecological values

### Weed species

No plant species classified as declared weeds within the meaning of the Tasmanian *Weed Management Act 1999* were detected from the study area. This is highly unusual for the South Arm peninsula, where properties supporting DTO often include moderate to dense populations of *Chrysanthemoides monilifera* subsp. *monilifera* (boneseed). Apart from four wildlings of *Pinus radiata* (radiata pine), which have already been removed by the owners, the site also does not support populations of environmental weeds. Again, this is highly unusual because *Billardiera heterophylla* (bluebell creeper), a twining perennial widespread in southeast Tasmania, is usually locally abundant. In fact, the subject title supports virtually no naturalised species (just three species recorded), and those that are present are sparse.

Any works within the title are unlikely to exacerbate the contemporary weed distribution, diversity and density within the title or cause a proliferation in neighbouring areas, simply because of the existing low density (virtual absence) of such species. However, any works have the potential to introduce weeds through machinery, vehicles and personnel. Strict hygiene protocols are recommended. However, beyond this measure, special management (e.g. a complex weed management plan) is not considered warranted. Owner-occupation is considered the most appropriate long-term management option, where vigilance and immediate control are practical.

Several planning manuals provide guidance on appropriate management actions, which can be referred to develop site-specific prescriptions for any proposed works in the study area. These manuals include:

- Allan, K. & Gartenstein, S. (2010). *Keeping It Clean: A Tasmanian Field Hygiene Manual to Prevent the Spread of Freshwater Pests and Pathogens*. NRM South, Hobart;
- Rudman T. (2005). *Interim Phytophthora cinnamomi Management Guidelines*. Nature Conservation Report 05/7, Biodiversity Conservation Branch, Department of Primary Industries, Water & Environment, Hobart;
- Rudman, T., Tucker, D. & French, D. (2004). *Washdown Procedures for Weed and Disease Control*. Edition 1. Department of Primary Industries, Water & Environment, Hobart; and
- DPIPWE (2015). *Weed and Disease Planning and Hygiene Guidelines – Preventing the Spread of Weeds and Diseases in Tasmania*. Department of Primary Industries, Parks, Water & Environment, Hobart.

### Rootrot pathogen, *Phytophthora cinnamomi*

*Phytophthora cinnamomi* (PC) is widespread in lowland areas of Tasmania, across all land tenures. However, disease will not develop when soils are too cold or too dry. For these reasons, PC is not a threat to susceptible plant species that grow at altitudes higher than about 700 m or where annual rainfall is less than about 600 mm (e.g. Midlands and Derwent Valley). Furthermore, disease is unlikely to develop beneath a dense canopy of vegetation because shading cools the soils to below the optimum temperature for the pathogen. A continuous canopy of vegetation taller than about 2 m is sufficient to suppress disease. Hence PC is not considered a threat to susceptible plant species growing in wet sclerophyll forests, rainforests (except disturbed rainforests on infertile soils) and scrub e.g. teatree scrub (Rudman 2005; FPA 2009).

The native vegetation type (DTO) identified from the subject title is not recognised as being particularly susceptible to PC (especially in this drier part of the State), except in particular circumstances (e.g. where it has a distinctly heathy understorey – in this case, the understorey is



grassy). Site assessment did not record any field symptoms (dead and/or dying susceptible plant species with several indicator species from the Fabaceae, Ericaceae and Dilleniaceae family present), such that special management should be required in relation to PC.

#### Myrtle wilt

Myrtle wilt, caused by a wind-borne fungus (*Chalara australis*), occurs naturally in rainforest where myrtle beech (*Nothofagus cunninghamii*) is present. The fungus enters wounds in the tree, usually caused by damage from wood-boring insects, wind damage and forest clearing. The incidence of myrtle wilt often increases forest clearing events such as windthrow and wildfire.

The subject title does not support *Nothofagus cunninghamii*, such that special management is not required.

#### Myrtle rust

Myrtle rust is a disease limited to plants in the Myrtaceae family. This plant disease is a member of the guava rust complex caused by *Austropuccinia psidii*, a known significant pathogen of Myrtaceae plants outside Australia. Infestations are currently limited to NSW, Victoria, Queensland and Tasmania (DPIPWE 2015).

No evidence of myrtle rust was noted (several possible indicator species present). The longer-term management issue for the site is to ensure that any ornamental plantings source plants from a reputable nursery free from the pathogen (such businesses are already subject to strict biosecurity conditions).

#### Chytrid fungus and other freshwater pathogens

Native freshwater species and habitat are under threat from freshwater pests and pathogens including *Batrachochytrium dendrobatidis* (chytrid frog disease), *Mucor amphibiorum* (platypus mucor disease) and the freshwater algal pest *Didymosphenia geminata* (didymo) (Allan & Gartenstein 2010). Freshwater pests and pathogens are spread to new areas when contaminated water, mud, gravel, soil and plant material or infected animals are moved between sites. Contaminated materials and animals are commonly transported on boots, equipment, vehicles tyres and during road construction and maintenance activities. Once a pest pathogen is present in a water system it is usually impossible to eradicate. The manual *Keeping it Clean - A Tasmanian Field Hygiene Manual to Prevent the Spread of Freshwater Pests and Pathogens* (Allan & Gartenstein 2010) provides information on how to prevent the spread of freshwater pests and pathogens in Tasmanian waterways wetlands, swamps and boggy areas.

The subject title supports localised habitats (drainage depressions with highly ephemeral flow) marginally associated with amphibian species but the proposed development site is exceedingly dry and well-drained, such that special management should not be warranted.

#### Additional "Matters of National Environmental Significance" – Threatened Ecological Communities

CofA (2021) indicates that the following threatened ecological communities listed on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA) are likely to, or may, occur within the area:

- Giant Kelp Marine Forests of South East Australia [Endangered]
- Subtropical and Temperate Coastal Saltmarsh [Vulnerable]
- Tasmanian Forests and Woodlands dominated by Black Gum or Brookers Gum (*Eucalyptus ovata* / *E. brookeriana*) [Critically Endangered]

Existing vegetation mapping (Figure 9) and revised vegetation mapping (Figure 10) indicates that no such threatened ecological communities occur within or adjacent to the subject title. There are no implications under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* in relation to vegetation types.

#### Additional "Matters of National Environmental Significance" – Wetlands of International Importance (Ramsar)

CofA (2021) indicates the study area is within 10 km of a Ramsar site, namely Pitt Water-Orielton Lagoon. The study area is within the catchment of un-named drainage systems, which "flow" into Mortimer Bay, wholly outside the catchment of the aforementioned Ramsar site. There are no implications under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* in relation to wetlands of international importance.

## **DISCUSSION**

### **Summary of key findings**

#### Threatened flora

- No plant species listed as threatened on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA) and/or the Tasmanian *Threatened Species Protection Act 1995* (TSPA) were detected, or are known from database information, from the study area.

#### Threatened fauna

- No fauna species listed as threatened on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA) and/or the Tasmanian *Threatened Species Protection Act 1995* (TSPA) were detected, or are known from database information, from the study area.
- The subject title supports potential habitat (to varying degrees of marginality) of several species, as follows:
  - Tasmanian devil (*Sarcophilus harrisi*);
  - spotted-tailed quoll (*Dasyurus maculatus* subsp. *maculatus*);
  - eastern quoll (*Dasyurus viverrinus*);
  - eastern barred bandicoot (*Perameles gunnii* subsp. *gunnii*);
  - masked owl (*Tyto novaehollandiae*);
  - swift parrot (*Lathamus discolor*);
  - wedge-tailed eagle (*Aquila audax* subsp. *fleayi*); and
  - grey goshawk (*Accipiter novaehollandiae*).

### Vegetation types

- The subject title supports the following TASVEG mapping unit:
  - *Eucalyptus tenuiramis* forest and woodland on sediments (TASVEG code: DTO).
- DTO is listed as threatened on Schedule 3A of the Tasmanian *Nature Conservation Act 2002*, but does not equate to a threatened ecological community under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

### Weeds

- No plant species classified as declared weeds (within the meaning of the Tasmanian *Weed Management Act 1999*) or as environmental weeds (author opinion) were detected from the study area.

### Plant disease

- No evidence of *Phytophthora cinnamomi* (PC, rootrot) was recorded within the study area.
- No evidence of myrtle wilt was recorded from within the study area.
- No evidence of myrtle rust was recorded from within the study area.

### Animal disease (chytrid)

- The part of the subject title proposed for development does not support habitats particularly conducive to frog chytrid disease.

## **Legislative and policy implications**

Some commentary is provided below with respect to the key threatened species, vegetation management and other relevant legislation. Note that there may be other relevant policy instruments in addition to those discussed. The following information does not constitute legal advice and it is recommended that independent advice is sought from the relevant agency/authority.

### Tasmanian Threatened Species Protection Act 1995

Threatened flora and fauna on this Act are managed under Section 51, as follows:

#### 51. Offences relating to listed taxa

- (1) Subject to subsections (2) and (3), a person must not knowingly, without a permit –
  - (a) take, keep, trade in or process any specimen of a listed taxon of flora or fauna; or
  - (b) disturb any specimen of a listed taxon of flora or fauna found on land subject to an interim protection order; or
  - (c) disturb any specimen of a listed taxon of flora or fauna contrary to a land management agreement; or
  - (d) disturb any specimen of a listed taxon of flora or fauna that is subject to a conservation covenant entered into under Part 5 of the *Nature Conservation Act 2002*; or
  - (e) abandon or release any specimen of a listed taxon of flora or fauna into the wild.
- (2) A person may take, keep or process, without a permit, a specimen of a listed taxon of flora in a domestic garden.

- (3) A person acting in accordance with a certified forest practices plan or a public authority management agreement may take, without a permit, a specimen of a listed taxon of flora or fauna, unless the Secretary, by notice in writing, requires the person to obtain a permit.
- (4) A person undertaking dam works in accordance with a Division 3 permit issued under the *Water Management Act 1999* may take, without a permit, a specimen of a listed taxon of flora or fauna.

The simplest interpretation of this is that any activity that results in a specimen (i.e. individual) of listed flora or fauna being “knowingly taken” would require a permit to be issued through Conservation Assessments, DPIPWE, through a formal application process. Note that the Act does not make reference to “potential habitat” such that activities that result in loss of/disturbance to potential habitat (but not known sites) – which mainly refers to threatened fauna – would not require a permit. The subject title does not support any known locations of threatened flora or fauna such that the Act does not have application.

#### Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*

Under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* an action will require approval from the minister if the action has, will have, or is likely to have, a significant impact on a matter of national environmental significance.

Matters of national environmental significance considered under the EPBCA include:

- listed threatened species and communities
- listed migratory species;
- Ramsar wetlands of international importance;
- Commonwealth marine environment;
- world heritage properties;
- national heritage places;
- the Great Barrier Reef Marine Park;
- nuclear actions; and
- a water resource, in relation to coal seam gas development and large coal mining development.

The Commonwealth Department of Agriculture, Water and the Environment provides a policy statement titled *Matters of National Environmental Significance: Significant Impact Guidelines 1.1* (CofA 2013, herein the *Guidelines*), which provides overarching guidance on determining whether an action is likely to have a significant impact on a matter protected under the EPBCA.

The *Guidelines* define a **significant impact** as:

*“...an impact which is important, notable, or of consequence, having regard to its context or intensity. Whether or not an action is likely to have a significant impact depends upon the sensitivity, value, and quality of the environment which is impacted, and upon the intensity, duration, magnitude and geographic extent of the impacts”*

and note that:

*“...all of these factors [need to be considered] when determining whether an action is likely to have a significant impact on matters of national environmental significance”.*

The *Guidelines* provide advice on when a significant impact may be likely:

*"To be 'likely', it is not necessary for a significant impact to have a greater than 50% chance of happening; it is sufficient if a significant impact on the environment is a real or not remote chance or possibility.*

*If there is scientific uncertainty about the impacts of your action and potential impacts are serious or irreversible, the precautionary principle is applicable. Accordingly, a lack of scientific certainty about the potential impacts of an action will not itself justify a decision that the action is not likely to have a significant impact on the environment".*

The *Guidelines* provide a set of Significant Impact Criteria, which are "intended to assist...in determining whether the impacts of [the] proposed action on any matter of national environmental significance are likely to be significant impacts". It is noted that the criteria are "intended to provide general guidance on the types of actions that will require approval and the types of actions that will not require approval...[and]...not intended to be exhaustive or definitive".

#### *Listed ecological communities*

The subject title does not support any such communities.

#### *Threatened flora*

The subject title does not support populations of EPBCA-listed flora, nor significant potential habitat of such species.

#### *Threatened fauna*

The subject title may support populations of threatened fauna listed on the Act, most notably the Tasmanian devil, spotted-tailed quoll, eastern quoll and eastern barred bandicoot. Note that the study area is within the range of several other species listed on the Act but it is unlikely that any proposal will result in a significant impact on these species (this includes wide-ranging species such as the wedge-tailed eagle, swift parrot and masked owl).

The *Guidelines* consider a "significant impact" to comprise loss that is likely to lead to a long-term decrease in the size of an important population of a species; reduce the area of occupancy of an important population; fragment an existing important population into two or more populations (unlikely); adversely affect habitat critical to the survival of a species; disrupt the breeding cycle of an important population; modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline; result in invasive species that are harmful to a threatened species becoming established in the threatened species' habitat; introduce disease that may cause the species to decline; or interfere substantially with the recovery of the species.

With respect to the aforementioned species, it is difficult to anticipate a scenario in which a referral to the Commonwealth Department of Agriculture, Water and the Environment would be become necessary at the scale of the proposed activities (a single residential dwelling and shed and associated bushfire hazard management).

#### Tasmanian Forest Practices Act 1985 and associated Forest Practices Regulations 2017

The *Regulations* provide the following relevant circumstances in which a Forest Practices Plan is not required.

4. Circumstances in which forest practices plan, &c., not required

For the purpose of section 17(6) of the Act, the following circumstances are prescribed:

- (a) the harvesting of timber or the clearing of trees, with the consent of the owner of the land, if the land is not vulnerable land and –
  - (i) the volume of timber harvested or trees cleared is less than 100 tonnes for each area of applicable land per year; or
  - (ii) the total area of land on which the harvesting or clearing occurs is less than one hectare for each area of applicable land per year –whichever is the lesser;
- (j) the harvesting of timber or the clearing of trees on any land, or the clearance and conversion of a threatened native vegetation community on any land, for the purpose of enabling –
  - (i) the construction of a building within the meaning of the *Land Use Planning and Approvals Act 1993* or of a group of such buildings; or
  - (ii) the carrying out of any associated development –if the construction of the buildings or carrying out of the associated development is authorised by a permit issued under that Act.

On this basis, the proposed development will not require a Forest Practices Plan.

#### Tasmanian Nature Conservation Act 2002

Schedule 3A of the Act lists vegetation types classified as threatened within Tasmania. The subject title supports *Eucalyptus tenuiramis* forest and woodland on sediments (TASVEG code: DTO), which is so listed. The administrative/regulatory mechanism managing threatened communities is through either the *Tasmanian Forest Practices Act 1985* (and associated *Forest Practices Regulations 2017*) or the local planning scheme (*Clarence Interim Planning Scheme 2015*), depending on the zone and code provisions.

#### Tasmanian Weed Management Act 1999

No plant species classified as declared weeds within the meaning of the *Tasmanian Weed Management Act 1999* were detected from the study area. As such, this Act has limited direct application (but note recommendations in relation to weed and hygiene management).

#### Tasmanian Wildlife (General) Regulations 2010

While the assessment of the subject title indicated the presence of species listed on schedules of the Regulations (i.e. "specially protected wildlife", "protected wildlife", "partly protected wildlife"), no individuals, or products (e.g. nests, dens, etc.), of these species, are likely to be directly physically affected by the works.

#### Tasmanian Land Use Planning and Approvals Act 1993

The applicable planning scheme for the study area is the *Clarence Interim Planning Scheme 2015*. The title is zoned as Rural Resource (Figure 4) under the *Scheme* and wholly subject to the Biodiversity Protection Area overlay (Figure 5).

Note that the following is my interpretation of the provisions of the *Clarence Interim Planning Scheme 2015* and may not necessarily represent the views of City of Clarence. The following does not constitute legal advice. It is recommended that formal advice be sought from the relevant agency prior to acting on any aspect of this statement.

## **Natural Assets Code**

The purpose of the Natural Assets Code is stated below:

E27.1 Purpose

E27.1.24.1

The purpose of this code is to:

- (a) protect identified threatened native vegetation communities and threatened flora species;
- (b) conserve threatened fauna by minimising habitat clearance and managing environmental impact; and
- (c) protect other native vegetation recognised as locally significant by the Planning Authority.

The whole title is mapped as a threatened native vegetation in the form of *Eucalyptus tenuiramis* forest and woodland on sediments (TASVEG code: DTO), such that E27.1.24.1(a) has application in relation to vegetation types.

The subject title does not support threatened flora, such that E27.1.24.1(a) does not have application in relation to threatened flora species.

The subject title does support potential habitat of threatened fauna species, in at least a general and somewhat marginal sense for species such as the marsupial carnivores, eastern barred bandicoot, masked owl, and wedge-tailed eagle, such that E27.1.24.1(b) may have limited application.

I am not aware that the subject title supports "native vegetation recognised as locally significant by the Planning Authority", except in a general sense through the application of the Biodiversity Protection Area overlay intended to confer management constraints to areas of native vegetation, such that E27.1.24.1(c) may not have direct application.

The application of the Natural Assets Code is stated below:

E27.2 Application

This code applies to all use or development, including subdivision and the clearance or disturbance of vegetation, on land wholly or partially within a Biodiversity Protection Area (BPA) shown on the planning scheme maps.

The subject title is wholly covered by the Biodiversity Protection Area overlay.

The term "vegetation" in this statement, however, is not defined and is presumed to logically link to clause E27.1 (Purpose) of the Natural Assets Code under which the concept of "native vegetation" is referred to and defined as:

"...plants that are indigenous to Tasmanian including trees, shrubs, herbs and grasses that have not been panted for domestic or commercial purposes".

"Clearance" is defined under the Code as:

"the removal of vegetation from an area of land leaving it in non-vegetated state, on a permanent or extended basis, or replacing the vegetation with alternate species and/or communities".

Clearing for access and a house site will meet the intent of "clearance".

“Disturbance” is defined under the Code as:

“the alteration of the structure and species composition of a vegetation community through actions such as selective removal, or thinning, of vegetation or the removal of understorey”.

Hazard management will need to extend into the adjacent area of DTO). Hazard management in the very open DTO would not qualify as “clearance” as it will allow for the retention of canopy elements and only a minor modification to the understorey. It is interesting to note that the definition of “disturbance” requires the “alteration of the structure **and** species composition” (my emphasis added). Low intensity fuel modification in DTO would rarely result in the species composition being manifestly altered, except in a positive sense (e.g. encouraging annual native herbs such as orchids).

Section E27.5 indicates the application requirements for developments with the BPA (high risk) area, as follows:

#### E27.5 Application Requirements

##### E27.5.1

An application for a use or development within the BPA (High Risk) area is to be accompanied by a Natural Values Assessment for the site, except where the building and works will be within the existing cleared curtilage of an existing development.

##### E27.5.3

In addition to any other application requirements, the planning authority may require the provision of the following information, if considered necessary to determine compliance with a standard:

- (a) a report detailing method for mitigating impacts on nearby natural values; or
- (b) a report demonstrating special circumstances.

A “Natural Values Assessment” is described as follows:

An ecological assessment, generally consistent with the Guidelines for Natural Values Assessment (DPIPWE July 2009), by a suitably qualified person to identify and clearly convey:

- (a) the range and location of natural values affecting the site;
- (b) the significance of these natural values, in particular the identification of priority vegetation;
- (c) any likely impact on these natural values from the surrounding area including existing activities on the site, nearby land uses, weeds, pests, pathogens and the degree of connectivity with other land with natural values;
- (d) the likely impact of the proposed development or use on these natural values;
- (e) a consideration of the classification of the impact;
- (f) recommendations for the design of the proposed development or use to avoid or minimise the identified impacts; and
- (g) recommendations for the mitigation or management of any residual impacts.

The Natural Values Assessment should reflect current legislation and policy.

The preceding assessment and report, which fully complies with the *Guidelines for Natural Values Assessments – Terrestrial Development Proposals* (DPIPWE 2015), combined with this section, is intended to satisfy the intent of the requirements for a “natural values assessment” under the Code.



Section E27.6 provides the criteria for assessing the proposed development against the level of impact, as follows:

#### E27.6 Impact Classification

Potential impacts arising from a natural values assessment will be classified in accordance with the following criteria:

##### Major

The use or development, including subdivision works or the anticipated development upon the proposed lots, is likely to cause a significant impact upon priority vegetation irrespective of mitigation.

##### Minor

- (a) The use or development, including the likely need to clear for bushfire hazard reduction, is likely to only result in a minor impact on priority vegetation;
- (b) Mitigation measures, including biodiversity offsets, are proposed which reduce the impact on priority vegetation to a minor level; or
- (c) Any subdivision works or the future development upon the proposed lots is likely to only cause a minor impact upon priority vegetation.

##### Negligible

- (a) No priority vegetation will be cleared;
- (b) The use or development (including construction activities) will not involve blasting or significant noise or vibration impacts; and
- (c) Any subdivision works or the future development upon the proposed lots are unlikely to cause an impact upon priority vegetation.

In my opinion, the proposed development should be regarded as a "minor" impact.

Section E27.8 provides the development standards for vegetation clearance or disturbance, as follows (only the standard for a minor impact is shown):

#### 27.8 Development Standards

##### E27.8.1 Vegetation clearance or disturbance

##### Objective

To ensure that:

- (a) Priority vegetation is adequately protected;
- (b) Loss of vegetation is minimised;
- (c) Long term management plans are implemented; and
- (d) Impacts from construction and development activities are minimised and residual impacts appropriately managed.

In my opinion, the objective of the standard will be met because the provisions of the *Scheme* ensure that the balance of the native vegetation (priority vegetation) within the title is protected, the loss of native vegetation will be minimised to the construction footprint, and the final site selected will represent a reasonable balance between minimising visual impacts from both the in-title and off-title residences, minimising access length, avoiding impractical locations (e.g. steeper slopes closer to gullies), maximising solar benefits, and recognising setback requirements. Irrespective of where the site for a residence is positioned within the title, it will be within threatened vegetation (DTO), which is homogenous across the slopes such that the specific location will not make any material difference per se, except in so far as a residence in the northern portion of the title will minimise the length of access (and therefore new track clearing) required.

The Acceptable Solution for a Minor Impact is stated as:

For a Minor impact

A1

No Acceptable Solution

This means that irrespective of design, the Performance Criteria must be met.

The Performance Criteria for a Minor Impact are stated as:

P1

- (a) The clearance of native vegetation is the minimum extent necessary for the development (including bushfire hazard minimisation);
- (b) No burning, blasting or construction works involving excavators or multiple truck movements are to occur within 500 m (or 1 km if in line-of-sight) of an active raptor nest during the breeding season between July to January inclusive.
- (c) Additional mitigation measures are proposed to ensure that the development will satisfactorily reduce all remaining impacts on priority vegetation; and
- (d) Conservation outcomes and long terms security of any offset is consistent with the *Guidelines for the use of Biodiversity Offsets in the Local Planning Approval Process*, Southern Tasmanian Councils Authority 2013.

P1(a) is met, in my opinion, within the context of the configuration of the subject title, where the final site selected will represent a reasonable balance between minimising visual impacts from both the in-title and off-title residences, minimising access length, avoiding impractical locations (e.g. steeper slopes closer to gullies), maximising solar benefits, and recognising setback requirements.

P1(b) has no direct application because the nearest known nest is ca. 850 m away and not within line-of-sight (refer Figure 11).

P1(c) may have limited application because no additional impact on priority vegetation beyond the footprint of the development is anticipated, and the title is already subject to the constraints imposed by the Biodiversity Protection Area (High Risk) overlay.

P1(d) has general application only. The *Guidelines for the Use of Biodiversity Offsets in the Local Planning Approval Process* provide general principles and a basic approach to developing an offset/mitigation strategy, based on the general hierarchy of avoid, mitigate and offset. In this case, I have not recommended mitigation or offsets because the footprint of the development will be small relative to the balance of the title (as far as is practicable).

My interpretation of the type of proposal indicated (access, single residential dwelling and hazard management area to satisfy BAL 29) is that perhaps ca. 3,000 m<sup>2</sup> (or 0.3 ha) of native vegetation will be subject to some form of clearance or disturbance. At any reasonable scale, this is a small proportion of DTO. However, I have examined this in greater detail by reference to the accepted extent of the identified vegetation type at various scales (e.g. Statewide, NRM region, bioregion, municipality, title) as follows (Table 2).

That is, the loss of/disturbance to say ca. 3,000 m<sup>2</sup> (estimate only but appropriate for this process of assessment as even if this area were doubled, the proportions remain very small at all scales) of DTO within the subject title would represent a minuscule proportion of DTO at any spatial scale, only becoming marginally more significant at a lot level. In addition, it is noted that the whole title supports only DTO so avoiding this vegetation type is not possible.

**Table 2.** Spatial extent (and reservation levels) of DTO at different scales

[source: <http://dpiipwe.tas.gov.au/conservation/development-planning-conservation-assessment/planning-tools/tasmanian-reserve-estate-spatial-layer> note that this layer is based on June 2018 and DPIIPWE will be releasing a new version for June 2020 soon, although it is expected the proportional areas will remain very similar]

scale	Area (reservation level)	Proportional impact
Statewide	48,100 ha (24% reserved)	0.00062%
NRM South	48,000 ha (24% reserved)	0.00062%
South East bioregion	46,000 ha (24% reserved)	0.00065%
City of Clarence	1,600 ha (8% reserved)	0.01875%
Title	21 ha (n/a)	1.43%

## **Recommendations**

The recommendations provided below are a summary of those provided in relation to each of the ecological features described in the main report. The main text of the report provides the relevant context for the recommendations.

### Vegetation types

In general terms, minimising the extent of “clearance and conversion” and/or “disturbance” to native vegetation is recommended.

In addition, retention of hollow-bearing trees, stags, stumps and coarse woody debris wherever practical is strongly recommended for species such as hollow-nesting vertebrates and ground-dwelling mammals.

### Threatened flora

None identified – no special management required.

### Threatened fauna

Apart from the generic recommendation to minimise the extent of “clearance and conversion” and/or “disturbance” to native vegetation, no special management is recommended.

### Weed and disease management

Any works within the title are unlikely to exacerbate the contemporary weed distribution, diversity and density within the title or cause a proliferation in neighbouring areas, simply because of the existing low density (virtual absence) of such species. However, any works have the potential to introduce weeds through machinery, vehicles and personnel. Strict hygiene protocols are recommended. However, beyond this measure, special management (e.g. a complex weed management plan) is not considered warranted. Owner-occupation is considered the most appropriate long-term management option, where vigilance and immediate control are practical.

### Legislative and policy implications

There are no formal requirements for a permit under Section 51 of the Tasmanian *Threatened Species Protection Act 1995* (TSPA).

A formal referral to the Commonwealth Department of Agriculture, Water and the Environment under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA) is not considered required.

Development will require a planning permit pursuant to the provisions of the *Clarence Interim Planning Scheme 2015*. I have examined the provisions of the Natural Assets Code and have concluded that the proposal is satisfactory and do not make any specific recommendations.



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## APPENDIX A. Vegetation community structure and composition

The table below provides basic information on the structure and composition of the vegetation mapping unit identified from the subject title.

<b><i>Eucalyptus tenuiramis</i> forest and woodland on sediments (TASVEG code: DTO)</b>		
<p>DTO occupies the whole title. Most of the DTO is expressed as a woodland-forest facies of relatively low stature with a very open understorey (i.e. typical expression of DTO). The understorey has a high cover of bare ground as well as reasonably large amounts of coarse woody debris. Fire history (and probably grazing and/or firewood collecting) have reduced older-growth elements to scattered trees, stags and stumps.</p> <p>Aerial imagery indicates that the gullies are "darker", perhaps indicative of a different vegetation type. In reality, these gullies are still DTO, simply with a denser understorey of <i>Allocasuarina littoralis</i>, <i>Acacia melanoxylon</i> and <i>Pteridium esculentum</i>.</p> <p>DTO is in remarkably good condition – most properties on the South Arm peninsula with DTO support moderate to dense populations of boneseed and bluebell creeper (this title appears to be free of these species).</p>		
<div style="display: flex; justify-content: space-around;">   </div> <p style="text-align: center;">LHS. Typical DTO on slopes RHS. Example of gully facies of DTO</p>		
<b>Stratum</b>	<b>Height (m) Cover (%)</b>	<b>Species</b> (underline = dominant, parentheses = sparse)
Trees	15-22 m 10-30%	<u><i>Eucalyptus tenuiramis</i></u>
Tall shrubs	6-12 m variable	eucalypt regeneration, <u><i>Acacia dealbata</i></u> , ( <i>Exocarpos cupressiformis</i> ), ( <i>Allocasuarina littoralis</i> )
Low shrubs	<1 m 20%	<u><i>Ozothamnus obcordatus</i></u> , <i>Astroloma humifusum</i> , <i>Hibbertia riparia</i> , <i>Acacia genistifolia</i> , <i>Epacris impressa</i> , <i>Pultenaea gunnii</i> , <i>Pultenaea pedunculata</i> , <i>Acrotriche serrulata</i> , <i>Lissanthe strigosa</i>
Graminoids/grasses	30%	<i>Gahnia radula</i> , <i>Dianella brevicaulis</i> , <i>Lomandra longifolia</i> , <i>Austrostipa</i> spp., <i>Rytidosperma</i> spp., <i>Poa</i> spp., <i>Dichelachne rara</i> , <i>Arthropodium milleflorum</i>
Herbs	+	<i>Gonocarpus tetragynus</i> , <i>Wahlenbergia multicaulis</i> , <i>Drosera auriculata</i> , <i>Euchiton japonicus</i>
Ground ferns	localised	<i>Pteridium esculentum</i> [gullies only]

**APPENDIX B. Vascular plant species recorded from study area**

Botanical nomenclature follows *A Census of the Vascular Plants of Tasmania* (de Salas & Baker 2020), with family placement updated to reflect the nomenclatural changes recognised in the *Flora of Tasmania Online* (de Salas 2019+) and APG (2016); common nomenclature follows *The Little Book of Common Names of Tasmanian Plants* (Wapstra et al. 2005+, updated online at www.dpipwe.tas.gov.au).

e = endemic to Tasmania; i = naturalised in Tasmania.

**Table B1.** Summary of vascular species recorded from the study area

STATUS	ORDER			
	DICOTYLEDONAE	MONOCOTYLEDONAE	GYMNOSPERMAE	PTERIDOPHYTA
	45	22	-	1
e	1	-	-	-
i	3	-	-	-
<b>Sum</b>	<b>49</b>	<b>22</b>	<b>0</b>	<b>1</b>
<b>TOTAL</b>	<b>72</b>			

**DICOTYLEDONAE**

**ASTERACEAE**

- Brachyscome aculeata* hill daisy
- i *Cirsium vulgare* spear thistle
- Coronidium scorpioides* curling everlasting
- Euchiton japonicus* common cottonleaf
- i *Hypochaeris radicata* rough catsear
- Ozothamnus obcordatus* yellow everlastingbush
- e *Ozothamnus scutellifolius* buttonleaf everlastingbush

**CAMPANULACEAE**

- Wahlenbergia multicaulis* bushy bluebell

**CASUARINACEAE**

- Allocasuarina littoralis* black sheoak

**DILLENIACEAE**

- Hibbertia riparia* erect guineaflower

**DROSERACEAE**

- Drosera auriculata* tall sundew

**ERICACEAE**

- Acrotriche serrulata* ants delight
- Astroloma humifusum* native cranberry
- Epacris impressa* common heath
- Leucopogon collinus* white beardheath
- Lissanthe strigosa* subsp. *subulata* peachberry heath

**EUPHORBIACEAE**

- Amperea xiphoclada* var. *xiphoclada* broom spurge

**FABACEAE**

- Acacia dealbata* subsp. *dealbata* silver wattle
- Acacia genistifolia* spreading wattle
- Acacia gunnii* ploughshare wattle
- Acacia mearnsii* black wattle
- Acacia melanoxylon* blackwood
- Acacia myrtifolia* redstem wattle
- Bossiaea prostrata* creeping bossia
- Daviesia ulicifolia* subsp. *ulicifolia* yellow spiky bitterpea
- Pultenaea daphnoides* heartleaf bushpea
- Pultenaea gunnii* subsp. *gunnii* golden bushpea
- Pultenaea pedunculata* matted bushpea

**GENTIANACEAE**

- i *Centaurium erythraea* common centaury

<b>GERANIACEAE</b>	
<i>Geranium solanderi</i>	southern cranesbill
<b>GOODENIACEAE</b>	
<i>Goodenia lanata</i>	trailing native-primrose
<b>HALORAGACEAE</b>	
<i>Gonocarpus tetragynus</i>	common raspwort
<b>HYPERICACEAE</b>	
<i>Hypericum gramineum</i>	small st johns-wort
<b>MYRTACEAE</b>	
<i>Eucalyptus viminalis</i> subsp. <i>viminalis</i>	white gum
<i>Leptospermum scoparium</i>	common teatree
<b>OXALIDACEAE</b>	
<i>Oxalis perennans</i>	grassland woodsorrel
<b>PITTIOSPORACEAE</b>	
<i>Bursaria spinosa</i> subsp. <i>spinosa</i>	prickly box
<b>POLYGALACEAE</b>	
<i>Comesperma volubile</i>	blue lovecreeper
<b>RHAMNACEAE</b>	
<i>Pomaderris apetala</i> subsp. <i>apetala</i>	common dogwood
<i>Pomaderris elliptica</i> var. <i>elliptica</i>	yellow dogwood
<b>ROSACEAE</b>	
<i>Acaena novae-zelandiae</i>	common buzzy
<b>RUTACEAE</b>	
<i>Philotheca verrucosa</i>	fairy waxflower
<b>SANTALACEAE</b>	
<i>Exocarpos cupressiformis</i>	common native-cherry
<i>Exocarpos strictus</i>	pearly native-cherry
<i>Leptomeria drupacea</i>	erect currantbush
<b>SAPINDACEAE</b>	
<i>Dodonaea viscosa</i> subsp. <i>spatulata</i>	broadleaf hopbush
<b>THYMELAEACEAE</b>	
<i>Pimelea humilis</i>	dwarf riceflower
<b>MAGNOLIDS</b>	
<b>LAURACEAE</b>	
<i>Cassytha glabella</i> f. <i>dispar</i>	shortfruit slender dodderlaurel
<i>Cassytha pubescens</i>	downy dodderlaurel
<b>MONOCOTYLEDONAE</b>	
<b>AMARYLLIDACEAE</b>	
<i>Dianella brevicaulis</i>	shortstem flaxlily
<b>ASPARAGACEAE</b>	
<i>Arthropodium milleflorum</i>	pale vanilla-lily
<i>Lomandra longifolia</i>	sagg
<b>CYPERACEAE</b>	
<i>Carex breviculmis</i>	shortstem sedge
<i>Lepidosperma laterale</i>	variable sword-sedge
<b>JUNCACEAE</b>	
<i>Juncus subsecundus</i>	finger rush
<b>ORCHIDACEAE</b>	
<i>Caladenia clavigera</i>	clubbed spider-orchid
<i>Chiloglottis reflexa</i>	autumn bird-orchid
<b>POACEAE</b>	
<i>Austrostipa mollis</i>	soft speargrass
<i>Austrostipa pubinodis</i>	tall speargrass
<i>Austrostipa stupos</i>	corkscrew speargrass
<i>Deyeuxia quadriseta</i>	reed bentgrass
<i>Dichelachne rara</i>	common plume-grass
<i>Microlaena stipoides</i> var. <i>stipoides</i>	weeping grass
<i>Poa labillardierei</i> var. <i>labillardierei</i>	silver tussockgrass
<i>Poa sieberiana</i> var. <i>sieberiana</i>	grey tussockgrass
<i>Rytidosperma caespitosum</i>	common wallabygrass
<i>Rytidosperma geniculatum</i>	kneel wallabygrass
<i>Rytidosperma indutum</i>	tall wallabygrass
<i>Rytidosperma penicillatum</i>	slender wallabygrass
<i>Rytidosperma setaceum</i>	bristly wallabygrass
<i>Tetrarrhena distichophylla</i>	hairy ricegrass
<b>PTERIDOPHYTA</b>	
<b>DENNSTAEDTIACEAE</b>	
<i>Pteridium esculentum</i> subsp. <i>esculentum</i>	bracken



**APPENDIX C. Analysis of database records of threatened flora**

Table C1 provides a listing of threatened flora from within 5,000 m of the study area (nominal buffer width usually used to discuss the potential of a particular study area to support various species listed in databases), with comments on whether potential habitat is present for the species, and possible reasons why a species was not recorded.

**Table C1.** Threatened flora records from within 5,000 m of boundary of the study area

Species listed below are listed as rare (r), vulnerable (v), endangered (e), or extinct (x) on the Tasmanian *Threatened Species Protection Act 1995* (TSPA); vulnerable (VU), endangered (EN), critically endangered (CR) or extinct (EX) on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA). Information below is sourced from DPIPWE's *Natural Values Atlas* (DPIPWE 2021) and other sources where indicated. Habitat descriptions are taken from FPA (2016), FPA (2017) and TSS (2003+), except where otherwise indicated. Species marked with # are listed in CofA (2021).

Scientific name Common name	Status TSPA EPBCA	Tasmanian habitat description (and distribution)	Comments on study area and database records
<i>Austroparmelina</i> [syn. <i>Parmelina</i> ] <i>whinrayi</i> lichen	r -	<i>Parmelina whinrayi</i> occurs as an epiphyte in coastal scrub and woodland in Tasmania.	Potential habitat absent.
<i>Bolboschoenus caldwellii</i> sea clubsedge	r -	<i>Bolboschoenus caldwellii</i> is widespread in shallow, standing, sometimes brackish water, rooted in heavy black mud.	Potential habitat absent.
<i>Caladenia caudata</i> tailed spider-orchid	v VU # only	<i>Caladenia caudata</i> has highly variable habitat, which includes the central north: <i>Eucalyptus obliqua</i> heathy forest on low undulating hills; the northeast: <i>E. globulus</i> grassy/heathy coastal forest, <i>E. amygdalina</i> heathy woodland and forest, <i>Allocasuarina</i> woodland; and the southeast: <i>E. amygdalina</i> forest and woodland on sandstone, coastal <i>E. viminalis</i> forest on deep sands. Substrates vary from dolerite to sandstone to granite, with soils ranging from deep windblown sands, sands derived from sandstone and well-developed clay loams developed from dolerite. A high degree of insolation is typical of many sites.	Potential habitat marginally present, albeit atypical of most known sites. The species was not detected. The survey was conducted outside the peak flowering period (Wapstra 2018) but a timed-targeted survey is not considered warranted because of the statically very low likelihood of occurrence at any particular development site.
<i>Caladenia filamentosa</i> daddy longlegs	r -	<i>Caladenia filamentosa</i> occurs in lowland heathy and sedgy eucalypt forest and woodland on sandy soils.	Potential habitat widespread and superficially similar to known sites on the South Arm peninsula including near Paroa Court The record near Moola Close is possibly a database duplicate of the Paroa Court population). The species was not detected. The survey was conducted outside the peak flowering period (Wapstra 2018) but a timed-targeted survey is not considered warranted because of the statically very low likelihood of occurrence at any particular development site. The species has a naturally disjunct distribution with potential habitat exceedingly widespread in eastern Tasmania.

Scientific name Common name	Status TSPA EPBCA	Tasmanian habitat description (and distribution)	Comments on study area and database records
			Where it does occur, it tends to be highly localised and detection is serendipitous. I note the generous offer to access the property to undertake further surveys. I also offered to identify any plant species (especially orchids, which I expect to be more diverse than indicated by the current survey) at any time. If <i>Caladenia filamentosa</i> is detected, at that time we can develop suitable management (e.g. protect from browsing and trampling by caging).
<i>Cotula vulgaris</i> var. <i>australasica</i> slender buttons	r -	<i>Cotula vulgaris</i> var. <i>australasica</i> habitat includes saline herbfields, rocky coastal outcrops, and wet or brackish swamps.	Potential habitat absent.
<i>Cuscuta tasmanica</i> golden dodder	r -	<i>Cuscuta tasmanica</i> is known from saline areas and brackish marshes often, but not exclusively, on plants of <i>Wilsonia backhousei</i> (narrowleaf wilsonia).	Potential habitat absent.
<i>Cyrtostylis robusta</i> large gnat-orchid	r -	<i>Cyrtostylis robusta</i> is known from coastal or near-coastal sites in forest and heathland on well-drained soils. There is sometimes a strong correlation with <i>Allocasuarina verticillata</i> (drooping sheoak) on coastal dolerite cliffs.	Potential habitat absent.
<i>Dianella amoena</i> grassland flaxlily	r EN # only	<i>Dianella amoena</i> occurs mainly in the northern and southern Midlands, where it grows in native grasslands and grassy woodlands.	Potential habitat present. This perennial graminoid (detectable and identifiable at any time of the year) was not detected. <i>Dianella brevicaulis</i> was detected.
<i>Eucalyptus morrisbyi</i> morrisbys gum	e EN #	<i>Eucalyptus morrisbyi</i> occurs in coastal, dry sclerophyll woodland on gentle to hilly slopes with poor drainage. It tends to be restricted to gullies that offer some relief in this drought-prone, low rainfall area. It is associated with poor soils. The Calverts Hill subpopulation and associated remnant stands occur on recent sands overlying dolerite and the Risdon subpopulation on Permian mudstone.	Potential habitat present. This distinctive tree species (detectable and identifiable at any time of the year) was not detected. <i>Dianella brevicaulis</i> was detected.
<i>Eucalyptus risdonii</i> risdon peppermint	r -	<i>Eucalyptus risdonii</i> is restricted to the greater Hobart area (particularly the Meehan Range), with an outlying population at Mangalore and on South Arm. It occurs on mudstone, with an altitudinal range from near sea level to 150 m a.s.l. It can occur as a dominant in low open forest with a sparse understorey on dry, insolated ridgelines and slopes (e.g. with a northwest aspect), and individuals can extend into other forest types typically dominated by <i>E. tenuiramis</i> or <i>E. amygdalina</i> (but occasionally by other species) on less exposed sites.	Potential habitat present. This mallee-form tree (detectable and identifiable at any time of the year) was not detected. All specimens of <i>Eucalyptus tenuiramis</i> (adults, intermediates and juveniles) were a good match for typical sediment-based <i>Eucalyptus tenuiramis</i> .

Scientific name Common name	Status TSPA EPBCA	Tasmanian habitat description (and distribution)	Comments on study area and database records
<i>Glycine latrobeana</i> clover glycine	v VU # only	<i>Glycine latrobeana</i> occurs in a range of habitats, geologies and vegetation types. Soils are usually fertile but can be sandy when adjacent to or overlaying fertile soils. The species mainly occurs on flats and undulating terrain over a wide geographical range, including near-coastal environments, the Midlands, and the Central Plateau. It mainly occurs in grassy/heathy forests and woodlands and native grasslands.	Potential habitat absent.
<i>Hyalosperma demissum</i> moss sunray	e -	<i>Hyalosperma demissum</i> grows on rock pavements or shallow sandy soils in some of Tasmania's driest regions, and also in scalded patches in <i>Eucalyptus amygdalina</i> heathy/grassy woodland. The underlying substrate is mostly Jurassic dolerite, with occasional occurrences on Triassic sandstone and also Cainozoic sediments with a laterite lag. The elevation range of recorded sites in Tasmania is 30-470 m a.s.l., with an annual rainfall range of less than 600 mm.	Potential habitat absent.
<i>Lachnagrostis punicea</i> subsp. <i>filifolia</i> narrowleaf blowgrass	r -	<i>Lachnagrostis punicea</i> subsp. <i>filifolia</i> purportedly occurs in moist depressions in grassy woodlands/forests and grasslands, and on the edges of swamps and saline flats. In Tasmania, it is known only from historic records, two near Hobart and one near Ulverstone.	Potential habitat absent.
<i>Lachnagrostis robusta</i> tall blowgrass	r -	<i>Lachnagrostis robusta</i> occurs in saline situations such as the margins of coastal and inland saline lagoons	Potential habitat absent.
<i>Lepidium hyssopifolium</i> soft peppergrass	e EN #	The native habitat of <i>Lepidium hyssopifolium</i> is the growth suppression zone beneath large trees in grassy woodlands and grasslands (e.g. over-mature black wattles and isolated eucalypts in rough pasture). <i>Lepidium hyssopifolium</i> is now found primarily under large exotic trees on roadsides and home yards on farms. It occurs in the eastern part of Tasmania between sea-level to 500 m a.s.l. in dry, warm and fertile areas on flat ground on weakly acid to alkaline soils derived from a range of rock types.	Potential habitat absent.
<i>Lepilaena patentifolia</i> spreading watermat	r -	<i>Lepilaena patentifolia</i> occurs in coastal lagoons, creeks, inlets and estuaries and brackish inland lagoons.	Potential habitat absent.
<i>Lepilaena preissii</i> slender watermat	r -	<i>Lepilaena preissii</i> occurs in fresh and brackish lagoons, and estuaries.	Potential habitat absent.
<i>Leucochrysum albicans</i> var. <i>tricolor</i> grassland paperdaisy	e EN # only	<i>Leucochrysum albicans</i> var. <i>tricolor</i> occurs in the west and on the Central Plateau and the Midlands, mostly on basalt soils in open grassland.	Potential habitat absent.

Scientific name Common name	Status TSPA EPBCA	Tasmanian habitat description (and distribution)	Comments on study area and database records
<i>Limonium australe</i> var. <i>australe</i> yellow sea-lavender	r -	<i>Limonium australe</i> var. <i>australe</i> occurs in succulent or graminoid saltmarsh close to the high water mark, typically near small brackish streams.	Potential habitat absent.
<i>Prasophyllum apoxychilum</i> tapered leek-orchid	v EN # only	<i>Prasophyllum apoxychilum</i> is restricted to eastern and northeastern Tasmania where it occurs in coastal heathland or grassy and scrubby open eucalypt forest on sandy and clay loams, often among rocks. It occurs at a range of elevations and seems to be strongly associated with dolerite in the east and southeast of its range.	Potential habitat absent.
<i>Pterostylis ziegeleri</i> grassland greenhood	v VU # only	<i>Pterostylis ziegeleri</i> occurs in the State's south, east and north, with an outlying occurrence in the northwest. In coastal areas, the species occurs on the slopes of low stabilised sand dunes and in grassy dune swales, while in the Midlands it grows in native grassland or grassy woodland on well-drained clay loams derived from basalt.	Potential habitat absent.
<i>Ruppia megacarpa</i> largefruit seatassel	r -	<i>Ruppia megacarpa</i> occurs in estuaries and lagoons along the east and southeast coasts, and brackish lagoons in the Midlands; there is also an historic record from the Tamar estuary in the States' north.	Potential habitat absent.
<i>Ruppia tuberosa</i> tuberous seatassel	r -	<i>Ruppia tuberosa</i> has been recorded from the State's southeast at Ralphs Bay and Blackman Bay, where it grows in holes and channels in saltmarshes.	Potential habitat absent.
<i>Stenanthemum pimeleoides</i> propeller plant	v VU #	<i>Stenanthemum pimeleoides</i> is restricted to Tasmania's central East Coast and the Northern Midlands, where it occurs in dry sclerophyll forest or woodland with an open heathy or shrubby understorey. The topography tends to be flat to gently sloping. The species occurs in the drier parts of the State with rainfall between 500-800 mm per year, and usually at elevations below 100 m.	Potential habitat absent.
<i>Stuckenia pectinata</i> fennel pondweed	r -	<i>Stuckenia pectinata</i> is found in fresh to brackish/saline waters in rivers, estuaries and inland lakes. It forms dense stands or mats, particularly in slow-flowing or static water. The species grows in water of various depth.	Potential habitat absent.
<i>Stylidium despectum</i> small triggerplant	r -	<i>Stylidium despectum</i> has mainly been recorded from wet sandy heaths, moist depressions, soaks and hollows in near-coastal areas. It extends to similar habitat amongst forest and woodland in the Midlands.	Potential habitat absent.
<i>Triglochin minutissima</i> tiny arrowgrass	r -	<i>Triglochin minutissima</i> inhabits fresh or brackish mudflats or margins of swamps in lowland, mostly coastal areas.	Potential habitat absent.

<b>Scientific name</b> <b>Common name</b>	<b>Status</b> TSPA EPBCA	<b>Tasmanian habitat description</b> <b>(and distribution)</b>	<b>Comments on study area and</b> <b>database records</b>
<i>Vittadinia muelleri</i> narrowleaf new-holland-daisy	r -	<i>Vittadinia muelleri</i> occurs in native grassland and grassy woodland.	Potential habitat widespread and superficially similar to known sites on the South Arm peninsula including near Paroa Court The record near Moola Close is possibly a database duplicate of the Paroa Court population). This perennial herb (detectable and identifiable at any time of the year) was not detected.
<i>Xerochrysum palustre</i> swamp everlasting	v VU # only	<i>Xerochrysum palustre</i> has a scattered distribution with populations in the northeast, east coast, Central Highlands and Midlands, all below about 700 m elevation. It occurs in wetlands, grassy to sedgy wet heathlands and extends to associated heathy <i>Eucalyptus ovata</i> woodlands.	Potential habitat absent.

**APPENDIX D. Analysis of database records of threatened fauna**

Table D1 provides a listing of threatened fauna from within 5,000 m of the study area (nominal buffer width usually used to discuss the potential of a particular study area to support various species listed in databases), with comments on whether potential habitat is present for the species, and possible reasons why a species was not recorded.

**Table D1.** Threatened fauna records from 5,000 m of boundary of the study area

Species listed below are listed as rare (r), vulnerable (v), endangered (e), or extinct (x) on the Tasmanian *Threatened Species Protection Act 1995* (TSPA); vulnerable (VU), endangered (EN), critically endangered (CR) or extinct (EX) on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA). Information below is sourced from the DPIPW's *Natural Values Atlas* (DPIPWE 2021), Bryant & Jackson (1999) and FPA (2021); marine, wholly pelagic and littoral species such as marine mammals, fish and offshore seabirds are excluded. Species marked with # are listed in CofA (2021).

Scientific name Common name	Status TSPA EPBCA	Tasmanian habitat description (and distribution)	Comments on study area and database records
<i>Accipiter novaehollandiae</i> grey goshawk	e -	Potential habitat is native forest with mature elements below 600 m altitude, particularly along watercourses. Significant habitat may be summarised as areas of wet forest, rainforest and damp forest patches in dry forest, with a relatively closed mature canopy, low stem density, and open understorey in close proximity to foraging habitat and a freshwater body (i.e. stream, river, lake, swamp, etc.).	Potential habitat absent (except in a very general and opportunistic sense). The species may occasionally utilise the greater study area as part of a home range and for foraging but small-scale development should not have a significant impact on this aspect of the life history of the species.
<i>Amelora acontistica</i> chevron looper moth	v -	Potential habitat is saltmarshes, salt pans, and adjacent grasslands and grassy forest/woodland (within the same catchment as and adjacent to saline habitats).	Potential habitat absent.
<i>Antipodia chaostola</i> tax. <i>leucophaea</i> chaostola skipper	e EN #	Potential habitat is dry forest and woodland supporting <i>Gahnia radula</i> (usually on sandstone and other sedimentary rock types) or <i>Gahnia microstachya</i> (usually on granite-based substrates).	Potential habitat absent. Neither <i>Gahnia</i> species is present.
<i>Apus pacificus</i> fork-tailed swift	- - # only	Occasional non-breeding migrant to Tasmania only.	Potential habitat present. However, as this species rarely lands or roosts (and does not breed) on the Australian migration, any proposal should not have a deleterious impact on the species. Further consideration of this species should not be required.
<i>Aquila audax</i> subsp. <i>fleayi</i> tasmanian wedge-tailed eagle	e EN #	Potential habitat comprises potential nesting habitat and potential foraging habitat. Potential foraging habitat is a wide variety of forest (including areas subject to native forest silviculture) and non-forest habitats. Potential nesting habitat is tall eucalypt trees in large tracts (usually more than 10 ha) of eucalypt or mixed forest. Nest trees are usually amongst the largest in a locality. They are generally in sheltered positions on leeward	Potential nesting habitat absent from the subject title (forest is low stature lacking substantial mature trees, except in gullies, all of which are essentially west-facing). There is a known nest (RND #2823, David James, 15 Mar. 2020) located on the slopes/gully southeast of Mount Augustus (Figure 11). This nest is ca. 850 m from any proposed

Scientific name Common name	Status TSPA EPBCA	Tasmanian habitat description (and distribution)	Comments on study area and database records
		slopes, between the lower and mid sections of a slope and with the top of the tree usually lower than the ground level of the top of the ridge, although in some parts of the State topographic shelter is not always a significant factor (e.g. parts of the northwest and Central Highlands). Nests are usually not constructed close to sources of disturbance and nests close to disturbance are less productive. More than one nest may occur within a territory but only one is used for breeding in any one year.	development site and completely not within line-of-sight.  The species may occasionally utilise the greater study area as part of a home range and for foraging but small-scale development should not have a significant impact on this aspect of the life history of the species.
<i>Botaurus poiciloptilus</i> australasian bittern	- EN # only	Potential habitat is comprised of wetlands with tall dense vegetation, where it forages in still, shallow water up to 0.3 m deep, often at the edges of pools or waterways, or from platforms or mats of vegetation over deep water. It favours permanent and seasonal freshwater habitats, particularly those dominated by sedges, rushes and reeds (e.g. <i>Phragmites</i> , <i>Cyperus</i> , <i>Eleocharis</i> , <i>Juncus</i> , <i>Typha</i> , <i>Baumea</i> , <i>Bolboschoenus</i> ) or cutting grass ( <i>Gahnia</i> ) growing over a muddy or peaty substrate (TSSC 2011).	Potential habitat absent.
<i>Ceyx azureus</i> subsp. <i>diemenensis</i> Tasmanian azure kingfisher	v EN # only	Potential habitat comprises potential foraging habitat and potential breeding habitat. Potential foraging habitat is primarily freshwater (occasionally estuarine) waterbodies such as large rivers and streams with well-developed overhanging vegetation suitable for perching and water deep enough for dive-feeding. Potential breeding habitat is usually steep banks of large rivers (a breeding site is a hole (burrow) drilled in the bank).	Potential habitat absent.
<i>Chrysolarentia decisaria</i> Tunbridge looper moth	e -	Potential habitat is saltmarshes, salt pans, and adjacent grasslands and grassy forest/woodland (within the same catchment as and adjacent to saline habitats).	Potential habitat absent.
<i>Dasybela achroa</i> saltmarsh looper moth	v -	Potential habitat is saltmarshes, salt pans, and adjacent grasslands and grassy forest/woodland (within the same catchment as and adjacent to saline habitats).	Potential habitat absent.
<i>Dasyurus maculatus</i> subsp. <i>maculatus</i> spotted-tailed quoll	r VU #	Potential habitat is coastal scrub, riparian areas, rainforest, wet forest, damp forest, dry forest and blackwood swamp forest (mature and regrowth), particularly where structurally complex and steep rocky areas are present, and includes remnant patches in cleared agricultural land.	Potential habitat widespread. No evidence (e.g. scats, dens) of the species was observed. The site has a very open understorey lacking in rock outcrops/piles, generally devoid of wombat/rabbit burrows and with scattered, albeit quite abundant, and open coarse woody debris. Some of the gullies have denser understorey, albeit still very open at ground level.

Scientific name Common name	Status TSPA EPBCA	Tasmanian habitat description (and distribution)	Comments on study area and database records
			The species may occasionally utilise the greater study area as part of a home range and for foraging but small-scale development should not have a significant impact on this aspect of the life history of the species.
<i>Dasyurus viverrinus</i> eastern quoll	- EN #	Potential habitat is a variety of habitats including rainforest, heathland, alpine areas and scrub. However, it seems to prefer dry forest and native grassland mosaics which are bounded by agricultural land.	Refer to comments under spotted-tailed quoll.
<i>Haliaeetus leucogaster</i> white-bellied sea-eagle	v -	Potential habitat comprises potential nesting habitat and potential foraging habitat. Potential foraging habitat is any large waterbody (including sea coasts, estuaries, wide rivers, lakes, impoundments and even large farm dams) supporting prey items (fish). Potential nesting habitat is tall eucalypt trees in large tracts (usually more than 10 ha) of eucalypt or mixed forest within 5 km of the coast (nearest coast including shores, bays, inlets and peninsulas), large rivers (class 1), lakes or complexes of large farm dams. Scattered trees along river banks or pasture land may also be used.	See comments under wedge-tailed eagle but note that the site provides highly opportunistic habitat only (atypical of nesting and foraging sites).
<i>Hirundapus caudacutus</i> white-throated needletail	- VU # only	This species is mostly aerial, from heights of less than 1 m up to more than 1,000 m above the ground. Although they occur over most types of habitat, they are recorded most often above wooded areas, including open forest and rainforest.	Potential habitat present. However, as this species rarely lands or roosts (and does not breed) on the Australian migration, any proposal should not have a deleterious impact on the species. Further consideration of this species should not be required.
<i>Lathamus discolor</i> swift parrot	e CR #	Potential habitat comprises potential foraging habitat and potential nesting habitat. Potential foraging habitat comprises <i>Eucalyptus globulus</i> (blue gum) or <i>Eucalyptus ovata</i> (black gum) trees that are old enough to flower. For management purposes, potential nesting habitat is considered to comprise eucalypt forests that contain hollow-bearing trees.	<i>Eucalyptus ovata</i> is absent so this component of potential foraging habitat is absent. <i>Eucalyptus globulus</i> is absent so this component of potential foraging habitat is absent. Hollow-bearing trees are virtually absent. That said, there are scattered larger trees with some hollow formation. Retention of these during construction and as part of a hazard management area is strongly encouraged.
<i>Litoria raniformis</i> green and golden frog	v VU #	Potential habitat is permanent and temporary waterbodies, usually with vegetation in or around them. Potential habitat includes features such as natural lagoons, permanently or seasonally inundated swamps and wetlands, farm dams, irrigation channels, artificial water-holding sites such as old quarries, slow-flowing stretches of streams and rivers and drainage features.	Potential habitat absent.



Scientific name Common name	Status TSPA EPBCA	Tasmanian habitat description (and distribution)	Comments on study area and database records
<i>Myiagra cyanoleuca</i> satin flycatcher	- - # only	Potential habitat is variable but mainly eucalypt-dominated forests, with a stronger association with wetter forest gullies.	Potential habitat present. This is a spring-summer migrant that may occasionally utilise the greater study area for foraging. No sightings were made on the single day of assessment in March, which was within latter part of the species' resident period in Tasmania. Small-scale development should not have a significant impact on this species.
<i>Pardalotus quadragintus</i> forty-spotted pardalote	e EN	Potential habitat is any forest and woodland supporting <i>E. viminalis</i> (white gum) where the canopy cover of <i>E. viminalis</i> is $\geq 10\%$ or where <i>E. viminalis</i> occurs as a localised canopy dominant or co-dominant in patches exceeding 0.25 ha.	Potential habitat absent. <i>Eucalyptus viminalis</i> is not present in the manner described (highly occasional species only).
<i>Perameles gunnii</i> subsp. <i>gunnii</i> eastern barred bandicoot	- VU #	Potential habitat is open vegetation types including woodlands and open forests with a grassy understorey, native and exotic grasslands, particularly in landscapes with a mosaic of agricultural land and remnant bushland.	Potential habitat present. The species may occasionally utilise the greater study area as part of a home range and for foraging but small-scale development should not have a significant impact on this aspect of the life history of the species.
<i>Prototroctes maraena</i> Australian grayling	v VU #	Potential habitat is all streams and rivers in their lower to middle reaches. Areas above permanent barriers (e.g. Prosser River dam, weirs) that prevent fish migration, are not potential habitat.	Potential habitat absent.
<i>Pseudemoia pagenstecheri</i> tussock skink	v -	Potential habitat is grassland and grassy woodland (including rough pasture with paddock trees), generally with a greater than 20% cover of native grass species, especially where medium to tall tussocks are present.	Potential habitat absent.
<i>Sarcophilus harrisii</i> tasmanian devil	e EN #	Potential habitat is all terrestrial native habitats, forestry plantations and pasture. Devils require shelter (e.g. dense vegetation, hollow logs, burrows or caves) and hunting habitat (open understorey mixed with patches of dense vegetation) within their home range (427 km <sup>2</sup> ). Significant habitat is a patch of potential denning habitat where three or more entrances (large enough for a devil to pass through) may be found within 100 m of one another, and where no other potential denning habitat with three or more entrances may be found within a 1 km radius, being the approximate area of the smallest recorded devil home range. Potential denning habitat is areas of burrowable, well-drained soil, log piles or sheltered overhangs such as cliffs, rocky outcrops, knolls, caves	Refer to comments under spotted-tailed quoll.

Scientific name Common name	Status TSPA EPBCA	Tasmanian habitat description (and distribution)	Comments on study area and database records
		and earth banks, free from risk of inundation and with at least one entrance through which a devil could pass.	
<i>Theclinessthes serpentata</i> subsp. <i>lavara</i> chequered blue	r	Potential habitat is saltmarshes, and beach and coastal habitats, supporting food plants including <i>Rhagodia candolleana</i> (coastal saltbush) and species of <i>Atriplex</i> .	Potential habitat absent.
<i>Tyto novaehollandiae</i> subsp. <i>castanops</i> masked owl	e VU #	Potential habitat is all areas with trees with large hollows ( $\geq 15$ cm entrance diameter). Remnants and paddock trees (in any dry or wet forest type) in agricultural areas may constitute potential habitat. Significant habitat is any areas within the core range of native dry forest with trees over 100 cm dbh with large hollows ( $\geq 15$ cm entrance diameter).	Potential nesting habitat absent (large trees with large hollows are absent from the study area). The species may occasionally utilise the greater study area as part of a home range and for foraging but small-scale development should not have a significant impact on this aspect of the life history of the species.

**APPENDIX E. DPIPWE's *Natural Values Atlas* report for the study area**

Appended as pdf file.

**APPENDIX F. Forest Practices Authority's *Biodiversity Values Atlas* report for the study area**

Appended as pdf file.

**APPENDIX G. CofA's *Protected Matters* report for the study area**

Appended as pdf file.