

PLANNING APPLICATION FORM

Section 57 & 58

OFFICE USE ONLY	Application Number	PA2026061
	Assess No:	A1079
	PID No:	6040687

Applicant Name:	D.J.McCulloch & Associates		
Postal Address:			
Contact Phone:	Home		Work
Email Address:			

Planning Application Lodgement Checklist

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

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

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

WEST TAMAR COUNCIL



Application Number: «Application Number»

APPLICANT DETAILS

Applicant Name:	D.J.McCulloch & Associates PO Box 725, Riverside TAS 7250
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Note: Full name(s) of person(s) or company making the application and postal address for correspondence.

LAND DETAILS

Owner/Authority Name: <i>(as per certificate of title)</i>	JOHN HOOD & FIONA HOOD
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Location / Address:	39 FAIRWAY CRESCENT, RIVERSIDE, TAS 7250
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Title Reference:	F/R 15340/4
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Zone(s):	General Residential
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Existing Development/Use:	residential
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Existing Developed Area:	5371m²
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DEVELOPMENT APPLICATION DETAILS

Proposed Use:	Residential: <input checked="" type="checkbox"/>	Visitor Accommodation: <input type="checkbox"/>	Commercial: <input type="checkbox"/>	Other: <input type="checkbox"/>
	Description of Use:			

Development Type:	Building work: <input type="checkbox"/>	Demolition: <input type="checkbox"/>	Subdivision: <input checked="" type="checkbox"/>	Other: <input type="checkbox"/>
	Description of development: 2 Lot Subdivision			

New or Additional Area:	1633m² & 3738m²
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Estimated construction cost of the proposed development:	
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Building Materials:	Wall Type:	Colour:
	Roof Type:	Colour:

WEST TAMAR COUNCIL



Application Number: «Application Number»

SUBDIVISION N/A

Subdivision creating additional lots
 Boundary adjustment with no additional lots created

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

COMMERCIAL, INDUSTRIAL OR OTHER NON-RESIDENTIAL DEVELOPMENT/USE N/A

Hours of Operation:	Monday / Friday:		To	
	Saturday:		To	
	Sunday:		To	
Existing Car Parking:				
Proposed Car Parking:				
Number of Employees: (Existing)				
Number of Employees: (Proposed)				
Type of Machinery installed:				
Details of trade waste and method of disposal:				

SEARCH OF TORRENS TITLE

VOLUME 15340	FOLIO 4
EDITION 5	DATE OF ISSUE 03-Oct-2023

SEARCH DATE : 10-Mar-2026

SEARCH TIME : 09.54 pm

DESCRIPTION OF LAND

Town of RIVERSIDE

Lot 4 on Sealed Plan 15340

Derivation : Part of 350A-2R-33 1/2Ps. Gtd. to W.C. Grubb.

Prior CT 3876/24

SCHEDULE 1

B612619 TRANSFER to JOHN STEWART HOOD and FIONA MAREE HOOD
Registered 14-Jan-1993 at noon

SCHEDULE 2

Reservations and conditions in the Crown Grant if any
SP 15340 EASEMENTS in Schedule of Easements If any
SP 15340 FENCING PROVISION in Schedule of Easements

UNREGISTERED DEALINGS AND NOTATIONS

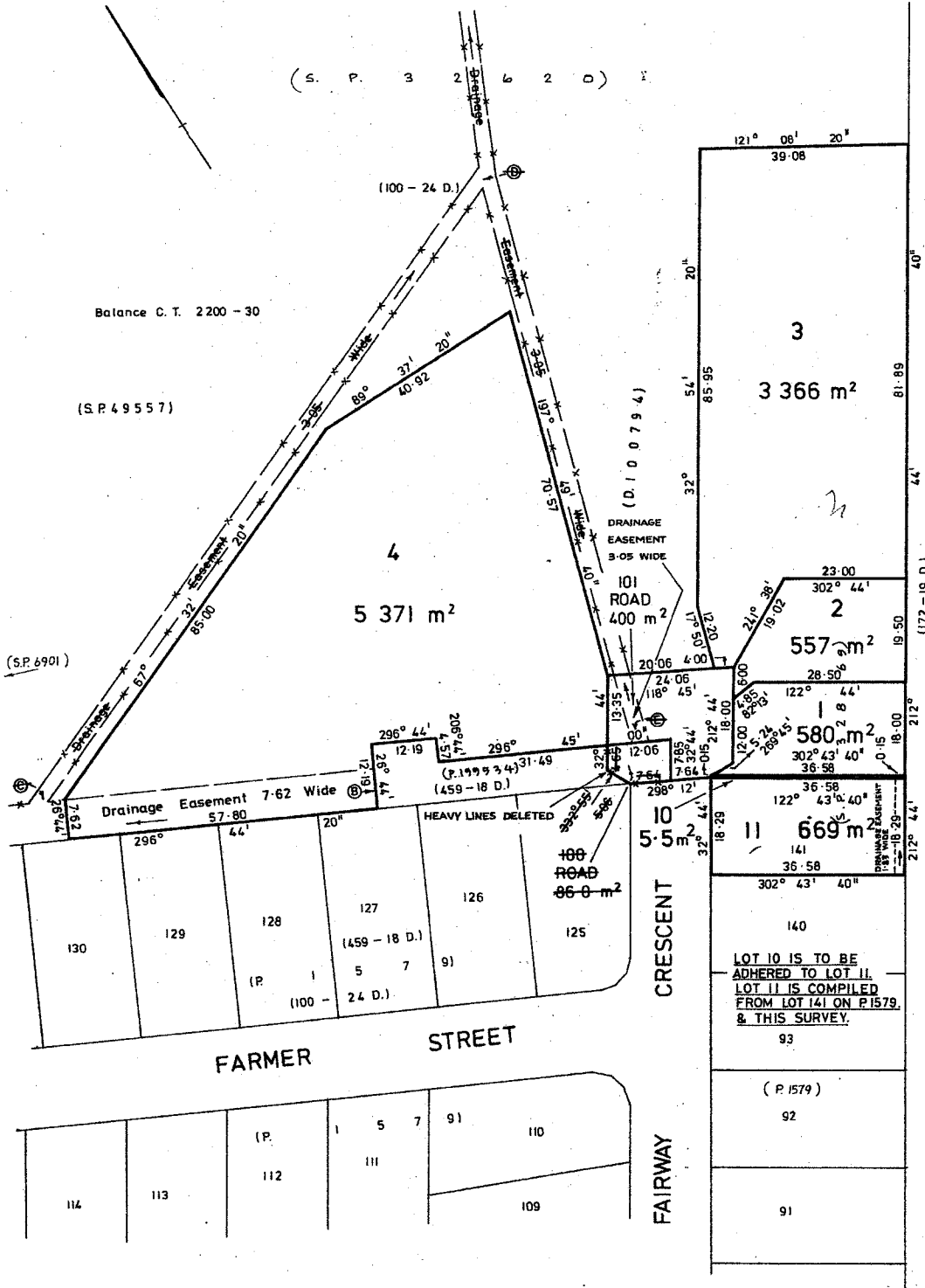
No unregistered dealings or other notations

5 P 15340 0861 ADR 6 22/75

<p>Owner: Lots 1 - 4, 10 & 101 - Lynne Suzanne Bailey. Lot 100 - The Warden etc. of The Municipality of Beaconsfield.</p> <p>Lot II Laurie Noel Wade & Gail Helen Wade</p> <p>Title Reference: Lots 1-4, 10 & 101 C.T. 2200 - 30 Lot 100 C.T. 2200 - 29 Lot II C.T. 2048 - 13</p> <p>Grantee: Part of 350a.2r.33½p. gtd to Wm. Crookes Grubb.</p>	<p>PLAN OF SURVEY</p> <p>by Surveyor <u> R. S. Kile </u> of land situated in the</p> <p>TOWN OF RIVERSIDE</p> <p>Scale 1:600 Lengths are in metres.</p>	<p>Registered Number: S.P. 15340</p> <p>Effective from: <u>1-2 FEB. 1981</u></p> <p><i>J. Brown</i> ACTING DEPUTY Recorder of Titles</p>
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MEMO 28/11/80

UJR S.N.S 18/11/80





SCHEDULE OF EASEMENTS

Plan No.

S.P
15340

NOTE:—The Town Clerk or Council Clerk must sign the certificate on the back page for the purpose of identification.

The Schedule must be signed by the owners and mortgagees of the land affected. Signatures should be attested.

EASEMENTS:

Lot 11 is Subject to a right of drainage (appurtenant to Lots 71 to 85 on Plan No. 1219, 86 to 88 on Plan No. 1274, 89 to 93 and 140 on Plan No.1579) over the drainage easement 1.83 metres wide/
FENCING PROVISION: shown hereon.

With respect to Lots 1,2,3,4, and 10 the Vendor (LYNNE SUZANNE BAILEY) shall not be required to fence.

EASEMENTS:

Lot ¹⁰¹4 is SUBJECT TO the rights created by Transfer No. A191233 from Samuel Bruce Freeland (herein called "the Transferor") to the Warden Councillors and Electors of the Municipality of Beaconsfield (herein called "The Transferee") which was made (inter alia) SUBJECT TO a right of drainage (appurtenant to 18.9/10 perches of land on Diagram No. 459/18) for the Transferee its successors and assigns for the purpose of carrying away storm water and other surplus water from all or any part or parts of the said 18.9/10 perches over the surface of or through and by all or any of the channels drains and watercourses which now exist or shall hereafter exist in upon or under that part of such lot marked "Drainage Easement 3.05ms wide" hereon PROVIDED ALWAYS that any channels drains and watercourses which might hereafter be constructed shall where practical be of a depth of not less than ^{457 millimetres} 18 inches and width of not less than 3 feet. 914 millimetres.

Lot ¹⁰¹4 is SUBJECT TO the rights created by Transfer No. A191233 from Samuel Bruce Freeland (herein called "The Transferor") to the Warden Councillors and Electors of the Municipality of Beaconsfield (herein called "The Transferee") which was made (inter alia) SUBJECT TO a right of drainage for the Transferee its successors and assigns for the purpose of carrying away storm water and other surplus water over the surface of or through and by all or any of the channels drains and watercourses which now exist or shall hereafter exist in upon or under that part of such lot marked "Drainage Easement 7.62ms wide" hereon PROVIDED ALWAYS that any channels drains and watercourses which might hereafter be constructed shall where practical be of a depth of not less than ^{457 millimetres} 18 inches and a width of not less than ^{914 millimetres} 3 feet to the intent that the same shall be an easement in gross in favour of the Transferee and its successors and assigns.

IT WAS EXPRESSLY AGREED AND DECLARED by and between the Transferor and Transferee notwithstanding anything hereinbefore contained -

- i. That the Transferee its successors and assigns will not be responsible for the cleansing and repairing of any existing and future channels and drains in upon and under the said drainage easement 3.05 ms wide and 7.62 ms wide hereon.
- ii. That the Transferor his heirs personal representatives and assigns and the owner or owners for the time being of any part of the said Lots 4 and 101 through which the said easements shown hereon pass will not be entitled to make any claim against the Transferee for any damage caused by any flooding that may occur from such easements.

COVENANTS:

Lot 11 is SUBJECT TO the restrictive covenants created by Order No. A207873 as follows:-

- (a) Not more than one main building shall be erected upon the said land

THIS COPY SCHEDULE CONSISTS OF 2 PAGE/S

15340

- (b) No outside walls of any such building shall be of any material other than stone, brick, brick veneer, concrete, concrete veneer, concrete blocks or concrete block veneer or any two or more of such materials or such other materials as shall be approved by the Vendor.
- (c) There shall not be erected on the said land any building (exclusive of outbuildings) of a less value than Three thousand Pounds such value to be the actual cost of labour and materials only and any question as to value shall be settled by the Vendor's Agents to whom all necessary vouchers shall be produced.
- (d) The main building erected on the said land shall not be used for any purpose other than a private dwelling house
- (e) That no engine or machinery worked or driven by steam gas electricity or other mechanical power and used for any trade operations shall be erected affixed or placed on any part of the said land and no trade or business which may be a public nuisance or private annoyance and no noxious trade or business whatsoever shall be carried on or be permitted to be carried on on any part of the said land.

No other covenants or other easements or profits a prendre are created to benefit or burden the said Lots

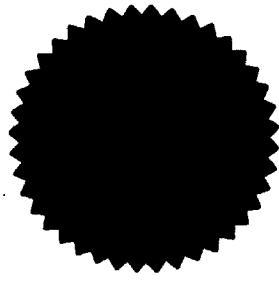
SIGNED by the said LYNNE SUZANNE BAILEY
the Registered Proprietor of the land
comprised in Certificate of Title
Volume 2200 Folio 30 in the presence of:-

) *L. S. Bailey*
)
)
)
)

Handwritten signatures

THE COMMON SEAL of TASMANIAN PERMANENT
EXECUTORS AND EQUITY TRUSTEES LIMITED
as Mortgagee under and pursuant to
Memoranda of Mortgage Nos. A564320 and
A690048 was hereunto affixed in the
presence of:-

)
)
)
)
)
)
)
)



Director

Director

Secretary

Handwritten signature of Director

Handwritten signature of Director

Handwritten signature of Secretary

15340

This is the schedule of easements attached to the plan of Lots 1-4, 10 & 101 - Lynne
(Insert Subdivider's Full Name)

Suzanne Bailey, Lot 100 - The Warden etc. of the affecting land in
Municipality of Beaconsfield.

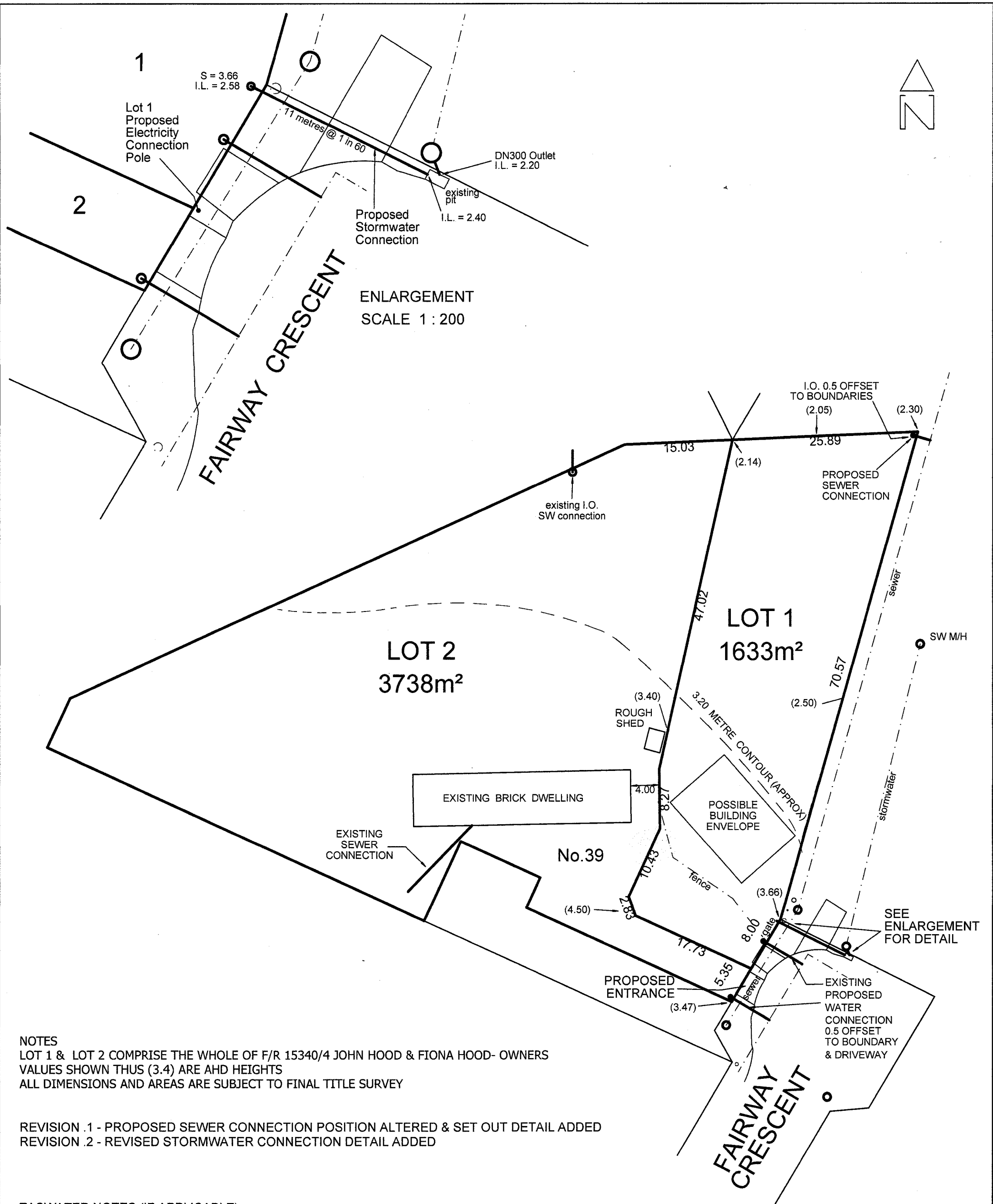
Lots 1-4, 10 & 101 C.T. 2200-30 Lot 100 C.T. 2200-29 Lot 11 C.T. 2048-13
(Insert Title Reference)

Sealed by MUNICIPALITY OF BEACONSFIELD on 28th October, 19 80

Solicitor's Reference


Council Clerk/Town Clerk

17263



NOTES
 LOT 1 & LOT 2 COMPRISE THE WHOLE OF F/R 15340/4 JOHN HOOD & FIONA HOOD- OWNERS
 VALUES SHOWN THUS (3.4) ARE AHD HEIGHTS
 ALL DIMENSIONS AND AREAS ARE SUBJECT TO FINAL TITLE SURVEY

REVISION .1 - PROPOSED SEWER CONNECTION POSITION ALTERED & SET OUT DETAIL ADDED
 REVISION .2 - REVISED STORMWATER CONNECTION DETAIL ADDED

- TASWATER NOTES (IF APPLICABLE)**
- (1) INSTALL NEW DN100 PROPERTY CONNECTION IN ACCORDANCE WITH MRWA+S-302 INSPECTION OPENINGS RAISED TO SURFACE BY TASWATER AT DEVELOPERS COST.
 - (2) SUPPLY & INSTALL DN25mm (ID20) HDPE PN16 SDR11 PROPERTY WATER CONNECTION WITH COMPATIBLE WATER METER BELOW GROUND LOW HAZARD BY TASWATER AT THE DEVELOPERS COST.
 - (3) ALL WATER & SEWER CONNECTIONS ARE TO BE CONSTRUCTED BY TASWATER AT THE DEVELOPERS COST.
 - (4) ALL WORKS ARE TO BE IN ACCORDANCE WITH THE WATER SUPPLY CODE OF AUSTRALIA WSA 03-2011-3.1 VERSION 3.1 MRWA EDITION V2.0 & THE SEWERAGE CODE AUSTRALIA MRWA CODE WSA 02-2014+3.1 MRWA VERSION 2 & TASWATER'S SUPPLEMENTS TO THOSE CODES.

D.J. McCulloch & Associates
 REGISTERED LAND SURVEYORS

PO BOX 725 RIVERSIDE TAS 7250
 MOBILE 0417526589
 EMAIL: - mcculldj@bigpond.net.au

PROPOSED SUBDIVISION
 39 FAIRWAY CRESCENT, RIVERSIDE
 John Hood & Fiona Hood - Owners
 Title Reference - F/R 15340/4
 Development Application for Planning Permit
 West Tamar Council

SCALE 1:500 (A3)	D. McCulloch 26/04/2026 Registered Land Surveyor	PLAN 0926-01.2 DA
JOB No. 2053-2605	Date	

This plan has been prepared as a proposed subdivision plan to accompany an application to Council for Planning Approval and it should not be used for any other purpose. The dimensions, areas, boundary positions and number of lots are subject to final survey and also to the requirements of Council and any other authority acting under any relevant legislation. In particular no reliance should be placed on the information shown on this plan for any legal or financial dealings involving the subject or adjoining lands. This note is an integral part of this plan.

Prepared for:

DJ McCulloch & Associates

39 Fairway Crescent

Riverside

COASTAL AND FLOOD
HAZARD REPORT



FE_26105

03 June 2026

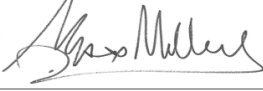




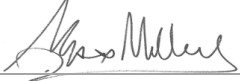
flüssig
Engineers

L4/ 116 BATHURST ST
HOBART TASMANIA 7000
ABN: 16 639 276 181

Document Information

Title	Client	Document Number	Project Manager
39 Fairway Crescent, Riverside Coastal and Flood Hazard Report	DJ McCulloch & Associates	FE_26105	Max W. Möller <i>Principal Hydraulic Engineer</i> BEng, FIEAust, EngExec, CPEng, NER, APEC Engineer, IntPE(Aus)

Document Initial Revision

REVISION 00	Staff Name	Signature	Date
Prepared by	Max W. Moller <i>Principal Hydraulic Engineer</i>		25/05/2026
Prepared by	Ash Perera <i>Senior Hydraulic Engineer</i>		25/05/2026
Prepared by	Christine Keane <i>Senior Water Resources Analyst</i>		25/05/2026
Prepared by	Fraser Cumming <i>Graduate Civil Engineer</i>		25/05/2026
Reviewed by	John Holmes <i>Senior Engineer</i>		01/06/2026
Authorised by	Max W. Möller <i>Principal Hydraulic Engineer</i>		03/06/2026

Rev No.	Description	Prepared by	Authorised by	Date

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APPENDIX A: Flood Study Maps

APPENDIX B: Risk Matrix

APPENDIX C: Coastal Inundation Declaration

1. Introduction

Flüssig Engineers have been engaged by **DJ McCulloch & Associates**, to undertake a Flood and Coastal Hazard Report for the development at 39 Fairway Crescent, Riverside in the **West Tamar Council** municipality. The purpose of this report is to determine the coastal inundation flood characteristics on the existing and post-development hazard scenarios for the 1% AEP plus climate change plus storm surge (1% AEP + CC + SS), for the purpose of lot subdivision.

1.1 Development

The proposal includes the subdivision of the existing lot at No. 39 Fairway Crescent, into two separate lots. The site has a total area of approximately 5,371 m² and contains an existing residential dwelling, which will remain unchanged.

Proposed Lot 1 will have an area of approximately 1,633 m² and include a 150 m² building envelope. Proposed Lot 2 will retain the existing dwelling and have an area of approximately 3,738 m². As the site is located within the West Tamar Council low and medium coastal inundation hazard bands, the proposal is subject to the Coastal Inundation Hazard Code.

Under the Coastal Inundation Hazard Code, developments in areas identified as being subject to low and medium inundation hazards are required to meet specific criteria to ensure safety, resilience, and compliance with the Tasmanian Planning Scheme. This includes considerations of flood depth, velocity, and overall risk to people, properties, and infrastructure.

1.2 Objectives and Scope

This coastal analysis has been written to meet the standards of the C11.0 Coastal Inundation Hazard Code Tasmanian Planning Scheme, with the intent of understanding the development's risk regarding flooding. The assessment considers both coastal inundation and overland flow from the upstream catchment. The objectives of this study are:

- Provide an assessment of the site's coastal inundation characteristics under the combined 1% AEP plus climate change (CC) + SS scenario.
- Provide comparison of coastal inundation for post-development against acceptable solution and performance criteria.
- Provide coastal mitigation recommendations for a potential future development, where appropriate.
- Evaluate the suitability of the proposed subdivision layout and building envelope with regard to inundation depth, hazard and access.

1.3 Scope Limitations

This study is limited to the objectives of the engagement by the clients, the availability and reliability of data, and including the following:

- The hydraulic model is limited to assessment of the 1% AEP + climate change + storm surge coincident event
- All parameters have been derived from best practice manuals and available relevant studies (if applicable) in the area.
- All provided data by the client or government bodies for the purpose of this study is deemed fit for purpose and has not been checked for accuracy.
- This assessment has been undertaken to evaluate the impact of the proposed development on coastal inundation and overland flood behaviour and should not be relied upon as a comprehensive coastal hazard study beyond the study area assessed.

1.4 Relevant Planning Scheme Requirements

Table 1. Tasmanian Planning Scheme Requirements

Planning Scheme Code	Objective
C11.7.1 Subdivision within a coastal inundation hazard area	That subdivision within a coastal inundation hazard area does not create opportunity for use or development that cannot achieve and maintain a tolerable risk from coastal inundation.

2. Model Build

2.1 Overview of Catchment

The contributing catchment for the site at 39 Fairway Crescent, Riverside is approximately 52.4 ha. The catchment was included within the 2D hydraulic model to assess overland flow generated during the adopted design rainfall event and its interaction with coastal inundation at the subject site. The land use of the catchment is zoned predominantly Open Space, Recreation, Community Purpose, General Business, Utilities and Rural, with the specific site being General Residential.

Figure 1 below outlines the approximate contributing catchment for the site at 39 Fairway Crescent, Riverside.



Figure 1. Contributing Catchment, No 39 Fairway Crescent, Riverside

2.2 Overview of site

39 Fairway Crescent is located in Riverside, a northern suburb of Launceston, adjacent to the Tamar River estuary. Although the site is situated a considerable distance inland from the open coastline, the tidal influence of the Tamar River extends significantly upstream, resulting in mapped coastal inundation hazards affecting low-lying areas within Riverside. As shown in Figure 2, the site is affected by the Coastal Inundation Code Overlay, with the majority of the lot situated within the Low and Medium Coastal Inundation Hazard Band and portions of the site extending into the Waterway and Coastal Protection Area. Surrounding land in close proximity to the site is also mapped within the Low Coastal Inundation Hazard Band, reflecting the broader inundation susceptibility of the Tamar River foreshore corridor.

The Coastal Inundation Hazard Overlay mapping indicates that the northern portion of the site is located within the Medium Coastal Inundation Hazard Band, while a Low Coastal Inundation Hazard Band extends through the central portion of the site. To provide a conservative assessment, the coastal inundation boundary condition adopted in the hydraulic model was based on the more conservative Low Hazard Band level for Riverside, being 2.9 m AHD. This approach ensures that the assessment accounts for the nearby higher coastal inundation level and provides a conservative basis for evaluating flood behaviour at the site.



Figure 2. Tasmanian Planning Scheme C11.0 Code Overlay

Figure 3 below outlines the approximate location of the site at 39 Fairway Crescent, in relation to the Tamar River.



Figure 3. 39 Fairway Crescent, Riverside

2.3 Hydrology

The following Table 2 states the adopted hydrological parameters for the RAFTS catchment.

Table 2. Parameters for RAFTS catchment

Catchment Area (ha)	Initial Loss Perv/imp (mm)	Continuing Loss Perv/imp (mm/hr)	Manning's N pervious	Manning's N impervious	Non-linearity factor
52.4	19-13.3/1	4.8-2.5/0.0	0.045	0.02	-0.285

2.3.1 Design Rainfall Events

The design rainfall assessment was undertaken to identify the critical storm event for the immediate catchment contributing runoff to the subject site. The purpose of this process was to ensure that the hydraulic model was based on the storm duration and temporal pattern that produced the most adverse local flood response, rather than relying on a single assumed rainfall event.

A range of 1% AEP storm durations and temporal patterns were assessed for the immediate catchment using a box and whisker comparison. This method allows the variability between temporal patterns to be reviewed and provides a clear indication of which storm produces the highest median model response. The results are presented in Figure 4.

The 30 minute temporal pattern 1 storm was therefore adopted as the design rainfall event for the hydraulic model. Using this event provides a representative and conservative basis for assessing flood depth, velocity, hazard and flood extent across the site. The adopted design event is considered appropriate for the immediate catchment conditions and supports the assessment of localised flooding behaviour under the 1% AEP climate change design scenario.

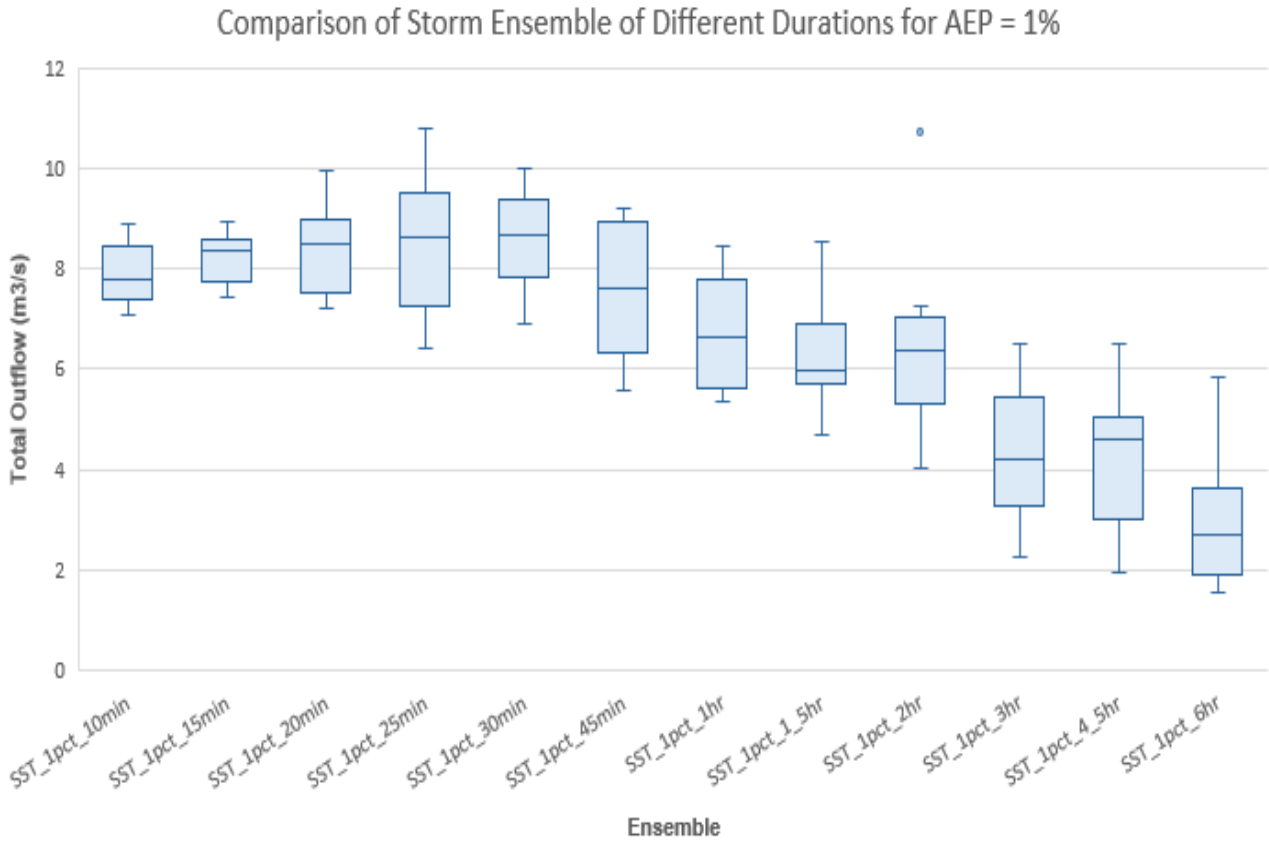


Figure 4. 1% Box and Whisker Plot

2.3.2 Climate Change

The ARR 2019 Guide for Flood Estimation, Version 4.2, is regarded as the industry standard for assessing projected increases in rainfall under climate change conditions for the year 2100 scenario.

According to Table 3 of the guide, a multiplication factor of 1.86 is adopted for rainfall durations of 30 minute for the SSP5-8.5 at 2100 scenario for the localised catchment. This factor, as stated below in Table 3, accounts for the anticipated intensification of extreme rainfall events due to climate change impacts and adopted by Council.

The ARR 2019 Guide for Flood Estimation, Version 4.2, is regarded as the industry standard for assessing projected increases in rainfall under climate change conditions for the year 2100 scenario.

Table 3. Climate Change Increases

Parameter	Localised Catchment SSP5-8.5 @ 2100
< 1 Hour Rainfall Intensity	86%

2.4 Hydraulics

A 2D hydraulic model was created to determine the flood level through the target area.

2.4.1 Calibration/Validation

This catchment has no stream gauge to calibrate the model against a real-world storm event. Similarly, there is little historical information available, and no past flood analysis undertaken to validate against the flows obtained in the model.

2.5 Coastal Processes

Coastal inundation within estuarine environments such as the Tamar River is influenced by a combination of astronomical tides, storm surge, wave set-up, wave run-up, and long-term sea level rise. The interaction of these processes can elevate water levels above normal tidal conditions and contribute to coastal flooding in low-lying areas. Figure 5 provides a conceptual illustration of the principal coastal processes that influence coastal water levels and inundation hazards.

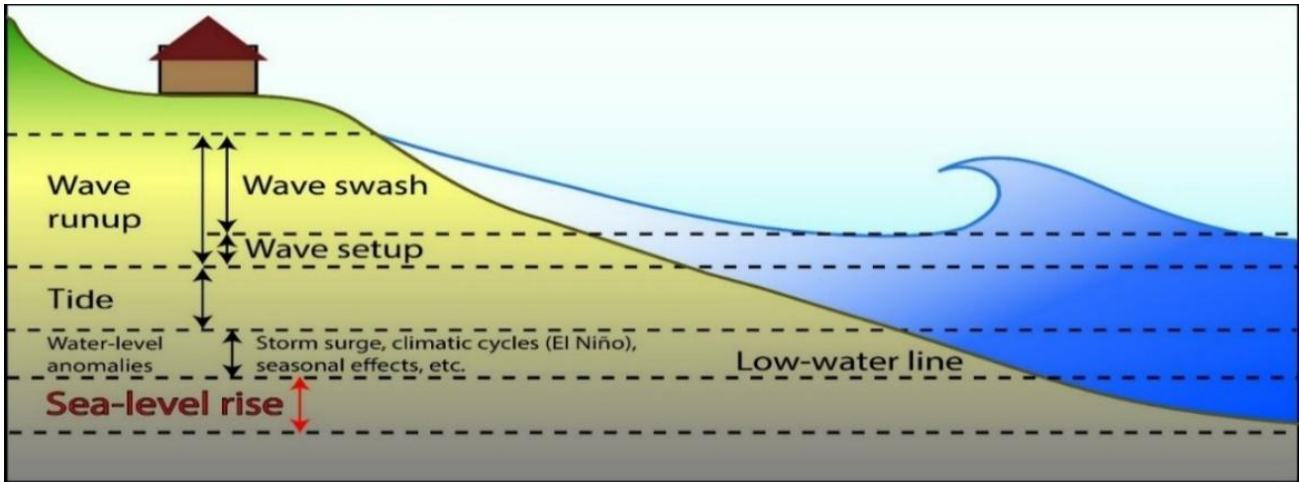


Figure 5. Coastal Processes Diagram

2.5.1 Wind and Swell Waves

Table 4 provides an extract from West Tamar Local Provisions Schedule CLA-Table C11.1 for the West Tamar Municipality, the values for Riverside were used. The modelling included ocean and near shore wave modelling. The resultant wave modelling was calibrated for the defined flood 1% AEP 2100.

As the property at 39 Fairway Crescent lies approximately 1 km from the Tamar River, the levels provided in Table 4 were adopted providing a slightly more accurate height for risk tolerance assessment.

Table 4. CLA-Table C11.1 Coastal Inundation Hazard Bands AHD Levels (Extract)

Locality	High Hazard Band (m AHD)	Medium Hazard Band (m AHD)	Low Hazard Band (m AHD)	Defined Flood
	Sea Level Rise 2050	1% AEP 2050 with freeboard	1% AEP 2100 (design flood level with freeboard)	1% AEP 2100
Riverside	1.8	2.6	3.2	2.9

2.5.2 Sea Level Rise

Sea level rise is a primary driver of coastal inundation hazard within low lying coastal water courses such as the Tamar River. For the purposes of this assessment, coastal water levels have been adopted in accordance with SOR Table C11.1 of the West Tamar Local Provisions Schedule, which defines the applicable Coastal Inundation Hazard Band levels for Riverside.

The adopted AHD thresholds are as follows:

- High Hazard Band: 1.8 m AHD, representing the 2050 sea level rise trigger.
- Medium Hazard Band: 2.6 m AHD, representing the 1% AEP 2050 event including freeboard.
- Low Hazard Band: 3.2 m AHD, representing the 1% AEP 2100 design flood level including freeboard.
- Defined Flood Level 2100: 2.9 m AHD for the 1% AEP coastal event

These levels incorporate projected sea level rise to year 2100 and provide a consistent statutory basis for coastal inundation mapping and planning assessment. The thresholds reflect progressively more

severe coastal water levels and are used to define the spatial extent of the Low and Medium Coastal Inundation Hazard Bands across the site.

Application of these adopted AHD levels ensures that the assessment aligns with current Tasmanian Planning Scheme requirements and provides a robust, policy consistent framework for evaluating long term coastal inundation risk under climate change conditions.

These projections ensure uniform, location-specific planning to manage future risks effectively.

2.5.3 Medium Hazard Coastal Inundation

As shown in Figure 2, the northern sections of the subject site at 39 Fairway Crescent are mapped within the Medium Coastal Inundation Hazard Band under the Coastal Inundation Code Overlay. This hazard band identifies land projected to be susceptible to inundation during a 1% annual exceedance probability (AEP) plus storm surge event under projected 2050 sea level rise conditions.

2.5.4 Low Hazard Coastal Inundation

Figure 2 shows that the subject site is predominantly mapped within the Medium Coastal Inundation Hazard Band, with the Low Coastal Inundation Hazard Band extending through the central portion of the lot.

As the Low Coastal Inundation Hazard Band is subject to a higher coastal inundation level for Riverside, the corresponding coastal inundation level was adopted as the downstream boundary condition within the hydraulic model. This provides a conservative assessment of potential coastal inundation impacts across the subject site.

2.6 Survey

The 2D surface model was taken from LiDAR 2013 to create a 1m cell size DEM. For the purposes of this report, 1m cells are enough to capture accurate flow paths. The DEM with hill shading can be seen below in Figure 6.



Figure 6. 1.0 m DEM (Hill shade) of Lot Area

2.6.1 Key Stormwater Assets including Pipes and Pits

Pipes and pits were modelled as 1D underground network within the localised catchment model to provide insight into the capacity of the stormwater system. Where data was missing, this was inferred from surrounding data and where invert levels were missing, a 600 mm cover was applied.

2.6.2 Roads

Roads often form the basis for overland flow in high frequency events; however, the kerb and channel are not always picked up by the DEM surface. To correct for the drainage lines, mesh polygons were used to delineate road corridors with the roads incorporating a z-line along the gutter to ensure the kerb invert is represented in the mesh.

2.6.3 Structures

In the process of crafting a two-dimensional grid to depict the ground surface of the floodplain, we initiated by re-sampling high-resolution LiDAR data to generate a digital elevation model (DEM) through the utilisation of GIS software.

Within this procedure, the attention was directed towards identifying and incorporating pertinent features such as residential structures, commercial buildings, walls, and roadways. Ensuring the comprehensive inclusion of these features within the re-sampled DEM was of utmost importance.

2.6.4 Buildings

Specifically, residential houses and commercial buildings were integrated into the DEM by elevating the corresponding grid cells representing these structures by a standardised height of 0.3 meters above the natural ground surface. Subsequently, the re-sampled grids were utilised to establish the Infoworks ICM model, thus forming a foundational framework for the subsequent analysis and simulation of flood dynamics.

This method allows for flow through the building if the flood levels/ pressure become great enough. The aim is to mimic flow through passageways such as doors, windows, and hallways.

2.6.5 Boundary conditions

The hydraulic model was developed within InfoWorks ICM using a two-dimensional rain-on-grid approach to simulate runoff generation and overland flow behaviour across the study area. Design rainfall was applied directly to the model surface, allowing rainfall losses, runoff generation, and flow routing processes to be represented dynamically within the hydraulic model.

To assess the combined effects of catchment flooding and coastal inundation, a downstream water level boundary condition was applied concurrently with the design rainfall event. A two-dimensional hydraulic zone representing the Tamar River Estuary was assigned the adopted coastal inundation level of 2.9 m AHD from Table 4 from Section 2.5.1, allowing coastal water levels to interact with local catchment runoff within the model domain. This approach represents a coincident storm surge and catchment flooding scenario and provides a conservative assessment of flood behaviour affecting the site.

2.6.6 Walls

All significant fences and retaining structures were incorporated into the 2D model as 2D linear wall elements. Paling fences were modelled with a maximum height of 250 mm, representing the estimated depth at which they are likely to collapse during a 1% AEP rainfall event. Solid material walls were modelled using a realistic height to reflect their structural integrity and expected behaviour under flood conditions.

2.6.7 Roughness (Manning's n)

Proposed structures were set to the finished works as shown on design drawings by DJ McCulloch & Associates.

The model grid's roughness and equivalent Manning's n values were derived from land use data. The specific values utilised are outlined in Table 5 provided below. These parameters have proven effective in previous flood mapping projects undertaken in Tasmania.

Table 5. Manning's Coefficients (ARR 2019)

Land Use	Roads	Open Channel	Rural	Residential	Parks	Buildings	Piped Infrastructure
Manning's n	0.018	0.035	0.04	0.045	0.05	0.3	0.013

3. Model Results

The hydraulic modelling results for the flood and coastal inundation assessment have been divided into two key scenarios: pre-development and post-development. This division enables a clear comparison of the impacts of the proposed subdivision and ensures that any changes in flood dynamics within the lot boundaries and surrounding areas are thoroughly evaluated.

3.1 Pre-Development Scenario

Flood modelling for the pre development 1% AEP event, including climate change and sea level rise to 2100, indicates that the northern and eastern portions of 39 Fairway Crescent, Riverside are affected by coastal inundation associated with elevated Tamar River estuary water levels. The mapped flood extent enters the site from the north and east, spreading across the lower open areas and around the existing development footprint. The response is mainly governed by backwater and tidal storage conditions rather than a fast moving overland flow path.

The depth mapping shows that the shallowest inundation generally occurs through the western and central parts of the lot, where modelled depths are typically below 0.30 m. Moderate inundation of approximately 0.30 m to 0.70 m affects a larger portion of the northern and eastern open areas. The deepest water is concentrated near the north eastern and eastern boundary areas, where depths locally increase to around 0.80 m to 1.0 m, with small isolated pockets potentially exceeding 1.0 m. These deeper areas correspond with the lower lying ground closer to the estuarine influence and are outside the main existing building footprint.

The velocity mapping confirms that the pre development flood behaviour is generally low energy across the usable parts of the property. Most of the lot is subject to velocities below 0.50 m/s, with some surrounding and eastern peripheral areas increasing to between 0.50 m/s and 1.0 m/s. Higher velocities, where shown, are located mainly outside or at the edge of the site, particularly to the east, and do not form a defined high velocity flow corridor through the existing dwelling area.

The hazard mapping indicates that H1 conditions dominate around the existing building and the western to central portions of the site. H2 and H3 conditions occur where depths increase across the eastern and northern open areas, while localised H4 and H5 hazard is generally confined to the lower north eastern and eastern peripheral areas. These higher hazard zones align with the deeper ponded inundation and higher edge velocities, rather than with active channelised flow.

The pre development scenario confirms that the site is extensively affected by the 2100 design coastal inundation event. However, the flood mechanism is predominantly slow moving estuarine inundation, with the greatest depth and hazard concentrated away from the principal existing building footprint. This provides a basis for assessing future works within the lower sections of the lot.

As shown in Figure 7, flood depth results indicate shallow to moderate inundation across the site, with deeper ponding concentrated along the eastern and north eastern low lying areas.

3.2 Post-Development Scenario

The post development scenario has been assessed for the 1% AEP event, including climate change and sea level rise to 2100, with the discussion focused only on the retained existing lot and the proposed new lot at 39 Fairway Crescent, Riverside. Refer to Figure 8 for the post development scenario flood depth and extent. The modelling indicates that coastal inundation remains the controlling flood mechanism within both lots. Water enters the lower parts of the site from the northern and eastern sides, reflecting Tamar River estuary levels rather than a concentrated stormwater flow path.

Within the retained existing lot, the flood extent affects mainly the northern edge, eastern side and low ground near the proposed boundary. The western and central areas, including the land around the existing dwelling, remain within the shallower mapped depth bands. Flood depths in these areas are generally less than 0.30 m, with localised areas increasing toward 0.30 m to 0.60 m closer to the proposed lot interface. The existing dwelling footprint remains outside the deeper inundation zones, and the mapping does not indicate any meaningful increase in flood depth around the dwelling area.

The proposed new lot is more exposed to inundation because it occupies the lower eastern portion of the parent parcel. Figure 8 shows that the proposed building envelope is located outside the mapped flood extent. The area around the envelope is affected by depths between 0.30 m and 0.80 m, with the lower eastern and north eastern parts of the proposed lot subject to deeper inundation. Localised depths of approximately 0.80 m to 1.0 m are present toward the eastern margin, with isolated deeper ponding located outside the central part of the retained lot. This pattern reflects the ground levels within the proposed new lot and its hydraulic connection to the estuarine inundation area.

The proposed boundary line does not appear to change the flood source, extent or pathway within the two lots. The mapped inundation remains broadly consistent with the pre development pattern, with shallow flooding retained near the existing dwelling and deeper flooding concentrated within the proposed new lot. No new concentrated flow corridor is shown to develop through either lot. Instead, the flood behaviour remains broad and slow moving, with storage and ponding controlled by the regional coastal water level. This indicates that the subdivision does not redirect floodwater across the retained lot or worsen conditions around the dwelling.

The post development hazard results show a similar pattern to the depth mapping. Within the retained existing lot, H1 hazard conditions remain dominant around the existing dwelling and western to central open areas. Minor areas of increased hazard occur closer to the proposed boundary and toward the eastern low ground, where flood depth increases. Within the proposed new lot, hazard conditions increase in line with deeper inundation. H2 and H3 conditions are present across parts of the proposed lot, while localised H4 and H5 areas are confined to the lower eastern and north eastern sections. These higher hazard areas are associated with deeper ponded water.

The post development scenario confirms that both the retained existing lot and proposed new lot remain affected by the 1% AEP plus climate change and sea level rise event to 2100. The retained existing lot continues to experience shallow flooding around the dwelling, while the proposed new lot is subject to greater inundation due to its lower eastern position. The modelling indicates that the subdivision and proposed building envelope do not create a significant adverse change within either lot, provided appropriate floor levels, materials, structural detailing and site management measures are incorporated.

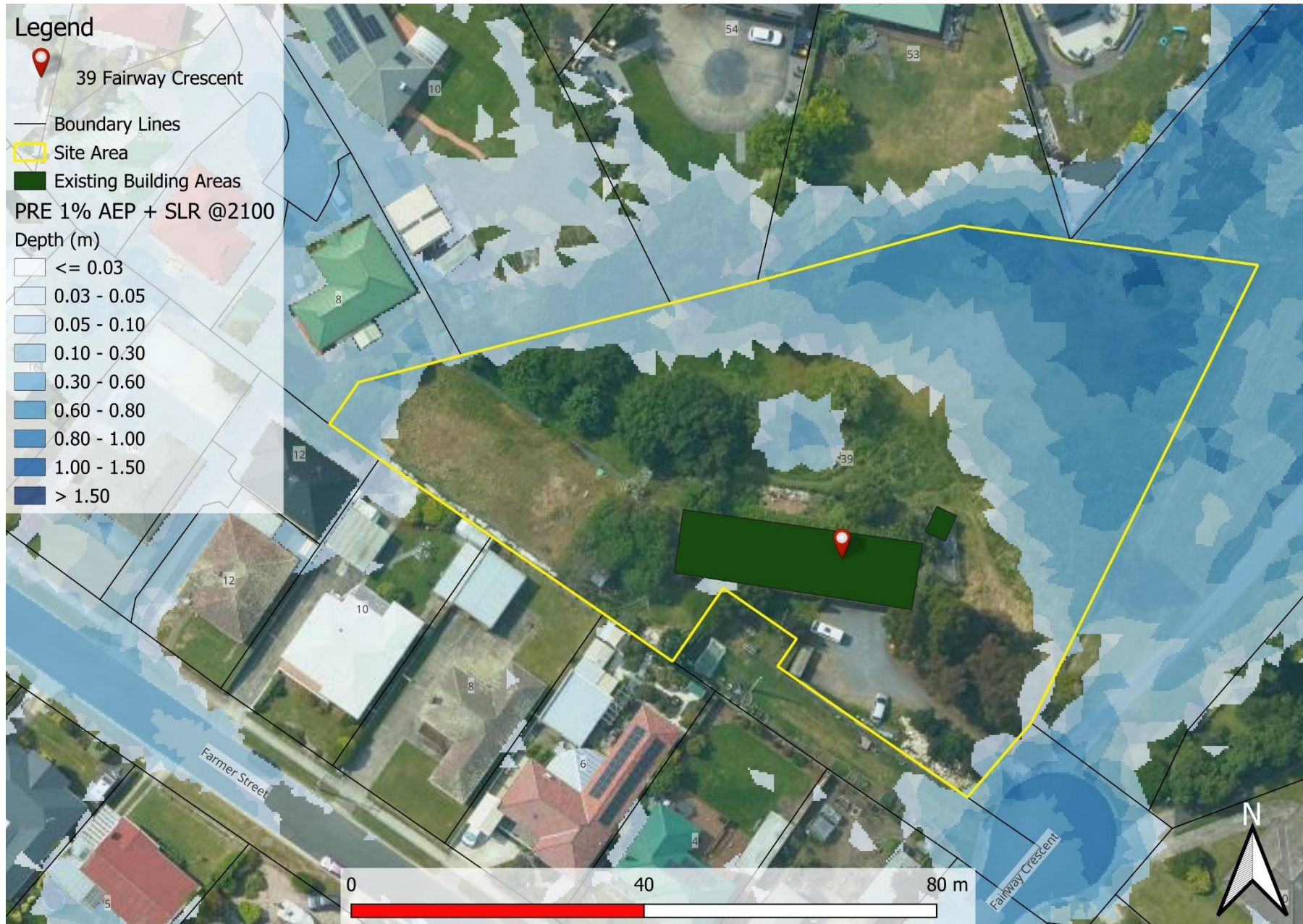


Figure 7. Pre-Development 1% AEP + CC Depth

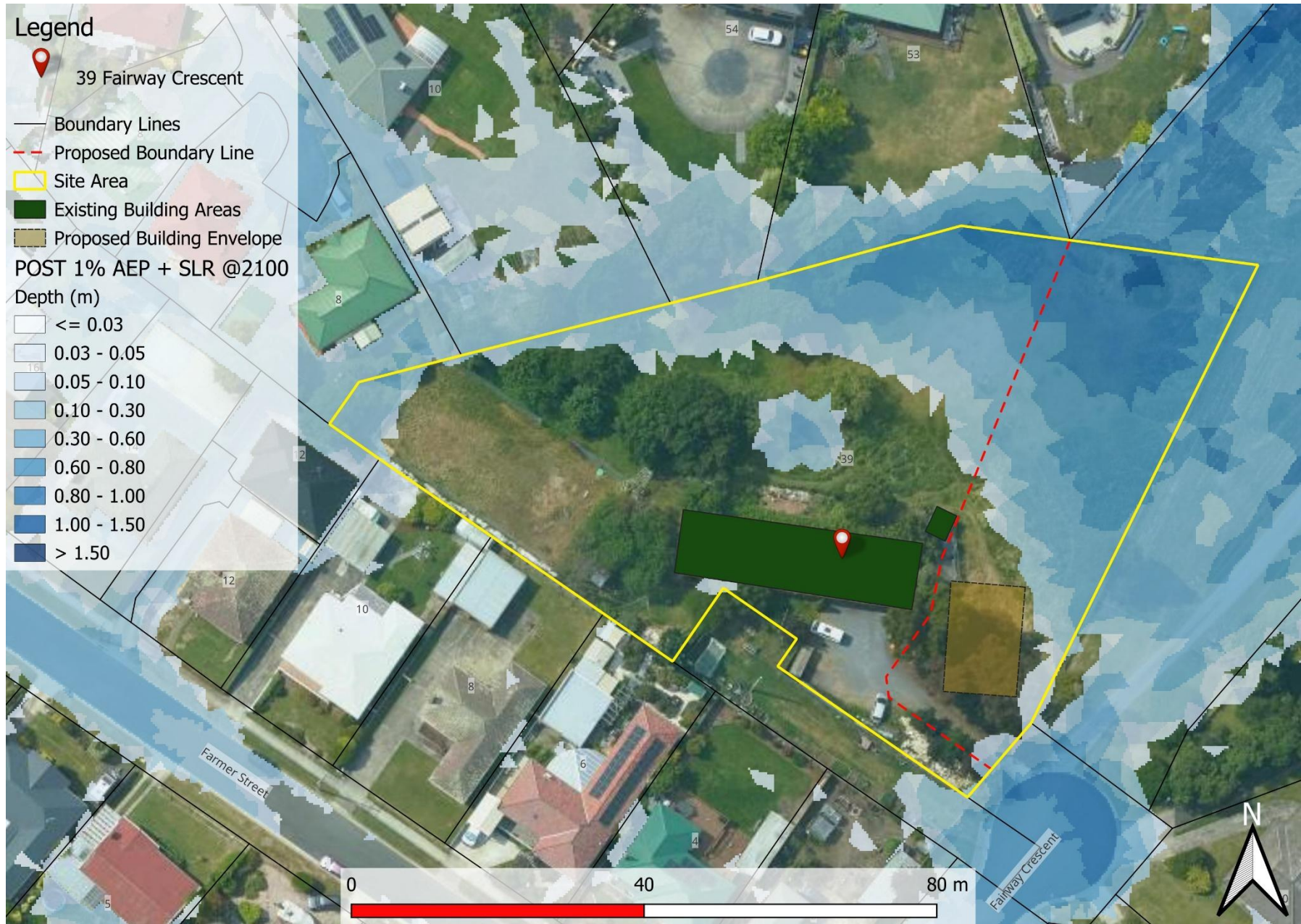


Figure 8. Post-Development 1% AEP + CC Depth

3.3 Displacement of Overland Flow on Third Party Property

Comparison of the post-development model results shown in Figure 8 with the pre-development conditions shown in Figure 7 indicates negligible changes to flood behaviour. Any localised changes are confined within the subject site, with no notable increase in flood depths, flood hazards, or flow distribution across neighbouring properties.

The indicative building envelope has been positioned outside the mapped inundation extent and therefore does not obstruct existing overland flow paths or flood storage areas. Accordingly, the risk of adverse impacts to third-party properties resulting from displacement of overland flow is considered negligible. The proposed subdivision is therefore not expected to adversely affect flood behaviour on surrounding properties.

3.4 Development Effects on Flooding

The proposed subdivision has been designed such that the indicative 150 m² building envelope is located outside the mapped inundation extent associated with the 1% AEP climate change and storm surge event. As no changes to ground levels, drainage patterns, flood storage, or overland flow paths are proposed, flood behaviour across the site remains consistent with existing conditions.

The proposed subdivision can accommodate future development within the nominated building envelope while maintaining existing flood behaviour and preserving available flood storage and conveyance across the site. Future development remains subject to separate assessment and approval.

4. Flood Hazard

The post development flood hazard assessment for the created lot has been undertaken for the 1% AEP event, including climate change and sea level rise to 2100. The hazard mapping indicates that flood affected land is present within the created lot, primarily along the lower northern, eastern and southern margins. Importantly, the proposed building envelope is located outside the mapped flood hazard area and is therefore not affected by H1, H2, H3, H4, H5 or H6 conditions during this event.

The mapped hazard pattern within the created lot is controlled by coastal inundation from elevated Tamar River estuary levels. The results do not show a defined high velocity overland flow path through the proposed building envelope. Instead, the flood hazard is associated with slow moving backwater inundation and ponding across the lower ground surrounding the development area. This confirms that the envelope has been positioned on higher land within the created lot, away from the mapped inundation extent.

Hazard conditions within the created lot increase toward the eastern and north eastern low lying areas. These portions of the lot include H2 and H3 conditions, with localised H4 and H5 hazard further east where deeper ponding occurs. Lower hazard conditions are also shown near the southern and northern margins. However, these mapped hazard areas remain outside the proposed building envelope and do not encroach across the intended dwelling location.

The proposed building envelope is therefore suitably located from a flood hazard perspective. By keeping the future building area outside the mapped flood extent, the development avoids direct exposure to flood depths, velocities and combined hazard categories identified in the post development model. This arrangement also limits the potential for the future dwelling to obstruct coastal flood storage or redirect floodwater within the created lot.

Although the building envelope is outside the mapped hazard area, future works within the remainder of the created lot should still be managed carefully. Any filling, fencing, retaining walls, driveways, landscaping, services or ancillary structures proposed within mapped hazard areas should be designed so they do not displace flood storage, trap water or increase impacts on adjoining land.

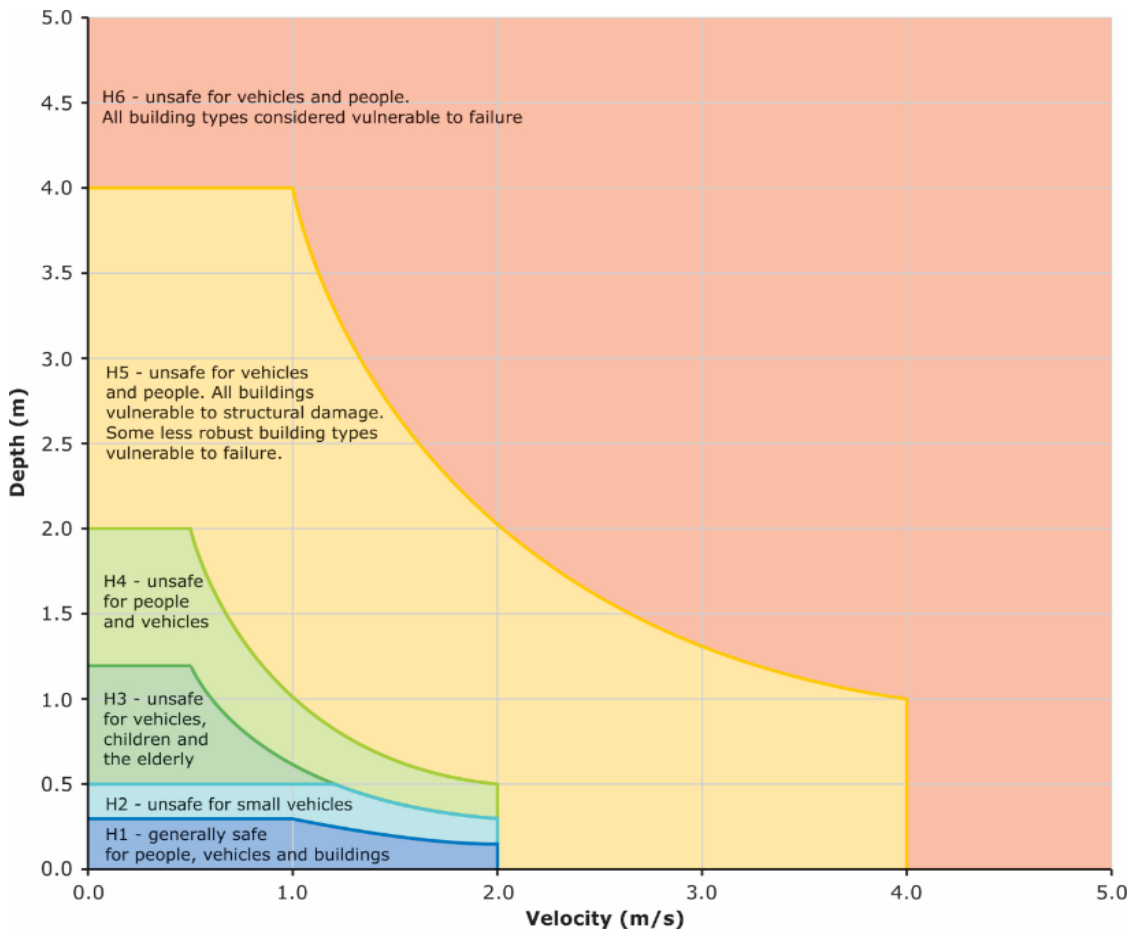


Figure 9. Hazard Categories Australian Disaster and Resilience Handbook

4.1 Tolerable Risk

The site is subject to widespread but generally shallow inundation near the habitable areas during the assessed 1% Annual Exceedance Probability event incorporating projected climate change and sea level rise to the year 2100. Flood behaviour across the lot is predominantly characterised by estuarine inundation and localised ponding associated with elevated River Tamar water levels. Model results indicate that the majority of the site experiences flood hazard classifications generally within the H1 to H2 range, with localised areas of increased hazard ranging from H3-H5 confined to lower-lying portions along the northern and eastern boundaries where deeper ponding occurs.

The proposed building envelope is located outside the mapped inundation extent and is therefore not directly affected by flooding during the assessed event. The primary flood risk associated with future development relates to temporary inundation of sections of the surrounding road network during extreme events. Under these circumstances, a shelter-in-place approach is considered an appropriate and manageable response until floodwaters safely recede.

The proposed subdivision does not alter existing flood depths, velocities, inundation extents, or hazard classifications. As the nominated building envelope is located outside the mapped inundation extent, the likelihood of future development resulting in increased flooding within the site or on surrounding properties is considered very low. The assessment indicates that flood behaviour remains unchanged, with no displacement of floodwaters onto adjoining properties or adverse impacts to surrounding land and infrastructure.

Accordingly, the proposed development is considered to achieve a tolerable level of flood risk in accordance with the applicable Coastal Inundation Hazard Areas Code. Provided the recommendations contained within this report are implemented and maintained for the life of the development, the proposed development is considered capable of achieving an acceptable and manageable level of flood resilience under the assessed future design conditions without resulting in unacceptable risks to occupants, property, or surrounding land.

4.2 Planning Scheme Assessment

The following table summarise the assessment of the proposed development against the relevant provisions of the Tasmanian Planning Scheme, clause 11.7.1.

Table 6. Report Summary against TPS(C11.7.1)

C11.7.1 Subdivision within a coastal inundation hazard area	
Objectives: That subdivision within a coastal inundation hazard area does not create an opportunity for use or development that cannot achieve and maintain a tolerable risk from coastal inundation.	
Performance Criteria	
A1	P1
<p>Each lot, or a lot proposed in a plan of subdivision within a coastal inundation hazard area must not create an opportunity for use or development that cannot achieve and maintain a tolerable risk from coastal inundation, having regard to:</p>	<p>Response from flood report</p>
<p>(a) any increase in risk from flood for adjacent land;</p> <p>(b) the level of risk to use or development arising from an increased reliance on public infrastructure;</p> <p>(c) the need to minimise future remediation works.</p> <p>(d) any loss or substantial compromise by flood of access to the lot, on or off site;</p> <p>(e) the need to locate building areas outside the flood-prone hazard area;</p> <p>(f) any advice from a state authority, regulated entity or a council; and</p> <p>(g) the advice contained in a flood hazard report.</p>	<p>(a) No opportunity of an increase in flood risk on adjacent land if building constructed within compliance areas.</p> <p>(b) The use within the proposed subdivision would not provide an opportunity to increase the risk of additional reliance on public infrastructure.</p> <p>(c) There is no need for significant remediation works if the recommendations within the report are followed as the proposed building compliance area is only minimally affected by inundation.</p> <p>(d) Access to both proposed lots may be temporarily compromised during major flood or coastal inundation events due to flooding within Fairway Crescent. The public road is inundated under both pre and post-development scenarios, with hazard classifications of up to H3 occurring outside the proposed lot boundaries. Access within the proposed lots remains at a maximum hazard classification of H1. A shelter-in-place approach is therefore considered appropriate until floodwaters recede and safe access is restored.</p> <p>(e) The nominated 150 m² building envelope is located outside the mapped inundation extent and therefore avoids the flood-prone areas of the site.</p> <p>(f) N/A</p> <p>(g) Refer to this report and recommendations.</p>

5. Conclusion

This assessment has been undertaken with consideration of both the Coastal Inundation Hazard Code and Flood-Prone Areas provisions of the Tasmanian Planning Scheme, together with the applicable West Tamar Local Provisions Schedule coastal hazard levels. A combined assessment of coastal inundation and coincident overland flooding was completed using a two-dimensional hydraulic model.

The assessment indicates that the majority of the site is subject to low flood hazard conditions, ranging from no hazard classification to H1. Higher hazard classifications of up to H5 are confined to the northern portion of the site and remain associated with lower-lying areas susceptible to ponding and elevated estuarine water levels. The nominated building envelope is located outside the mapped inundation extent and away from the higher hazard areas of the site.

Access to the proposed lot remains subject to low flood hazard conditions, while Fairway Crescent is subject to existing H3 hazard classifications due to flood depths along the roadway. During extreme events, temporary restrictions to access may occur and a shelter-in-place approach is considered appropriate until floodwaters recede and safe access is restored.

The proposed subdivision does not result in any increase in flood levels, flood hazards, flow velocities, or flood risk to adjoining properties. Accordingly, the proposed subdivision is considered capable of achieving and maintaining a tolerable level of risk over its intended life and is consistent with the relevant requirements of the Tasmanian Planning Scheme and West Tamar Local Provisions Schedule.

6. Recommendations

Flüssig Engineers has conducted a detailed evaluation and based on our findings we recommend the implementation of the following engineering design measures for the proposed development. These recommendations are designed to ensure compliance with the stringent requirements of the Coastal Inundation Hazard Code:

1. During major storm events where site access may be temporarily affected, occupants should adopt a shelter-in-place approach and follow advice issued by the Tasmania State Emergency Service (SES) or other emergency personnel.
2. Any future development within the proposed building envelope should be subject to site-specific assessment during the planning, building approval, and detailed design stages. Finished floor levels, building layout, and any associated earthworks should be designed having regard to the applicable planning controls, flood conditions, and the need to maintain existing overland flow paths and flood storage characteristics.
3. Any additional works that are not represented in the provided plans should be subjected to a further flood assessment. This ensures all elements of the development meet the required flood risk management standards.
4. A proactive approach to risk mitigation should include regular review and integration of updates from future coastal studies. This is essential to evaluate their relevance to the site and to address evolving risks effectively.

7. Limitations

Flüssig Engineers was engaged by **DJ McCulloch & Associates**, to conduct a site-specific Flood and Coastal Inundation Report for the property located at 39 Fairway Crescent, Riverside, in accordance with C11.0 Coastal Inundation Hazard Code a of the Tasmanian Planning Scheme. The study conducted was considered appropriate for its intended purpose at the time of its execution. However, it is imperative to note that if any conditions of the site undergo changes, the report will necessitate a thorough review to ensure its continued relevance and accuracy.

The results, findings, and interpretations contained in this report are based on the existing site conditions, available LiDAR surface data, hydraulic modelling, and other third-party information provided to Flüssig Engineers. Should any aspect of the site, catchment, or proposed development design change, including modifications to ground levels, drainage patterns, or surrounding infrastructure, the flood behaviour and associated risks may also change. In such cases, this report must be re-evaluated and updated to reflect those modifications before further use.

This report must be read and used in its entirety. It may not be quoted, reproduced, or relied upon in part or for any purpose other than that expressly stated within, unless prior written consent is obtained from Flüssig Engineers.

Flüssig Engineers accepts no responsibility or liability for errors or inaccuracies arising from information supplied by external sources, third-party consultants, or other data providers used in preparing this report. The outcomes and conclusions presented herein are valid only for the conditions and assumptions explicitly described in this document.

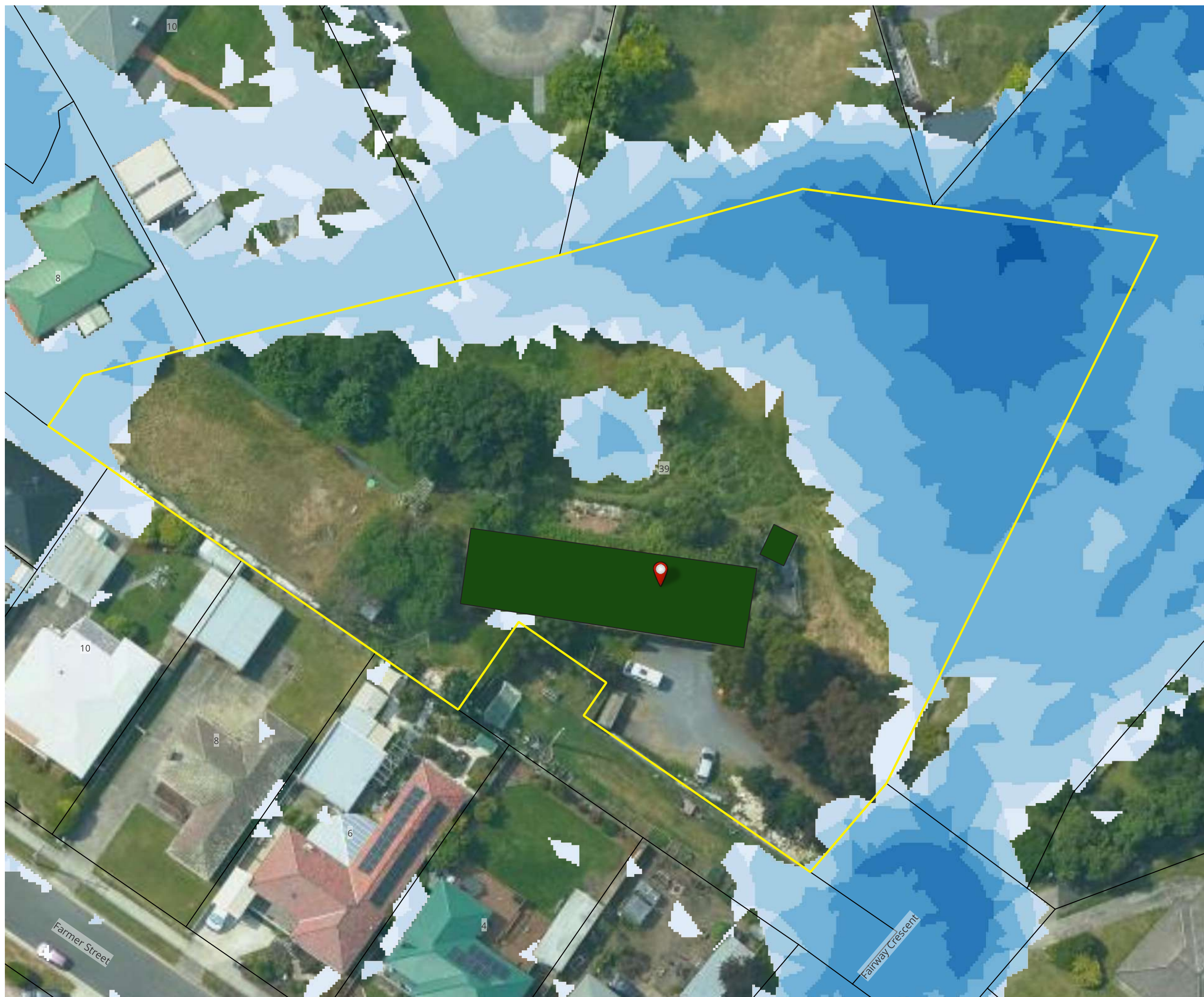
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Appendices

Appendix A: Flood Study Maps

PRE 1% AEP + CC + SLR @ 2100



Legend

 39 Fairway Crescent


 Boundary Lines


 Site Area


 Existing Building Areas


PRE 1% AEP + SLR @2100


Depth (m)


 <= 0.03


 0.03 - 0.05


 0.05 - 0.10


 0.10 - 0.30

 0.30 - 0.60

 0.60 - 0.80

 0.80 - 1.00

 1.00 - 1.50

 > 1.50



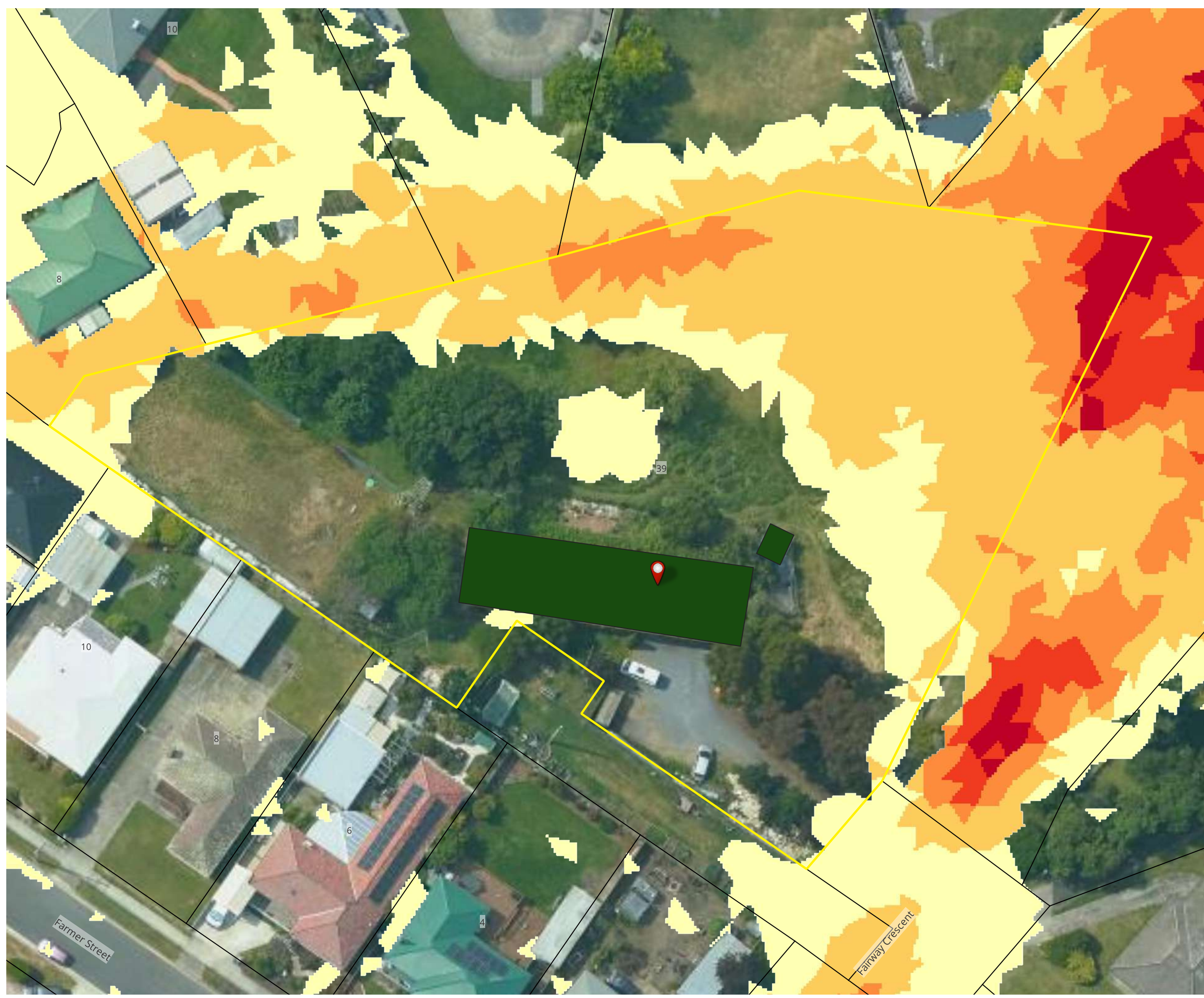
0 10 20 m
meters



flüssig
Engineers

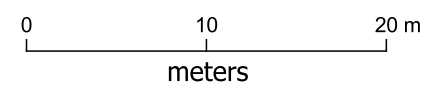
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PRE 1% AEP + CC + SLR @ 2100



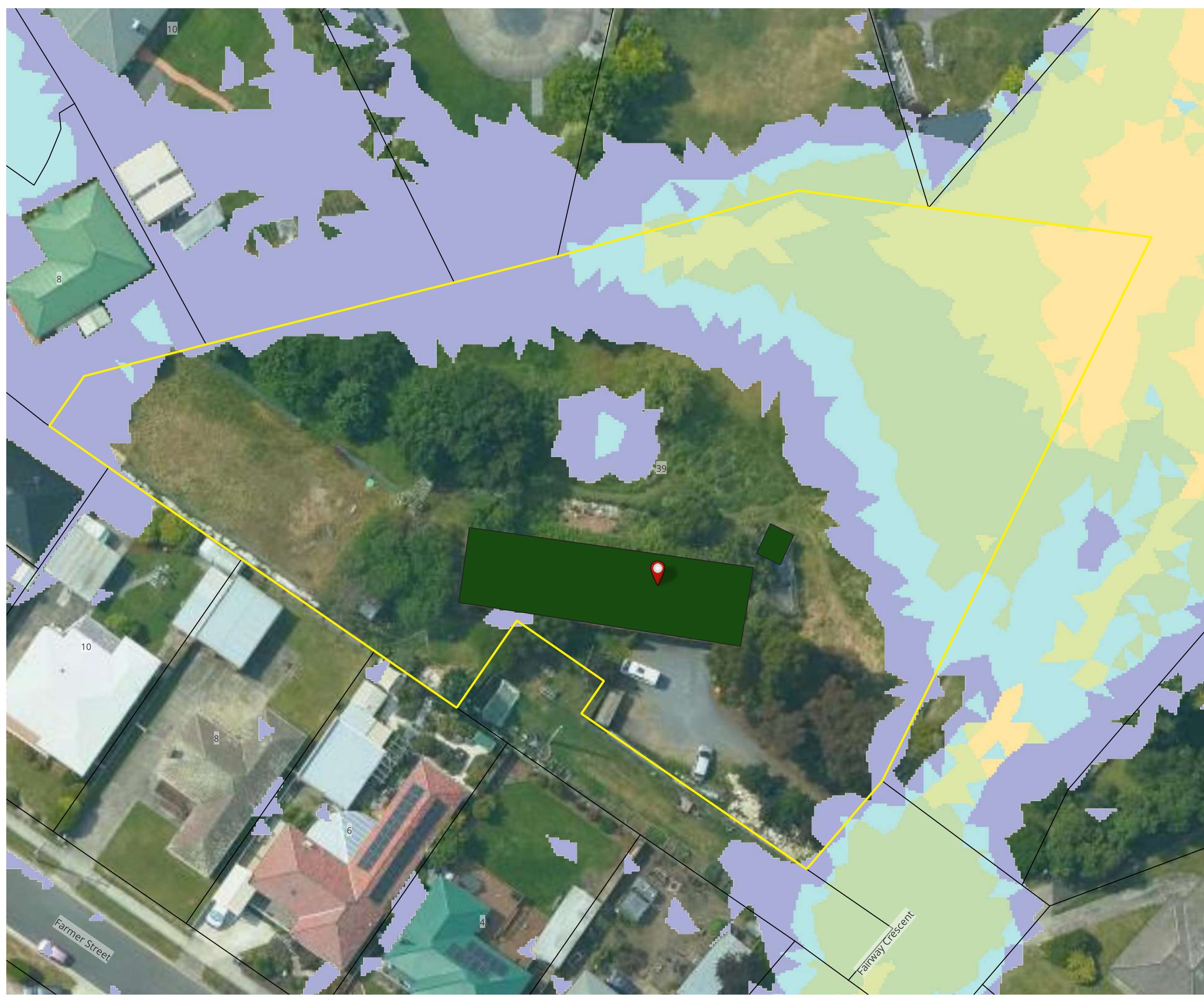
Legend

- 39 Fairway Crescent
- Boundary Lines
- Site Area
- Existing Building Areas
- PRE 1% AEP + SLR @2100
- Velocity (m/s)
 - <= 0.50
 - 0.50 - 1.00
 - 1.00 - 1.50
 - 1.50 - 2.00
 - > 2.00



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PRE 1% AEP + CC + SLR @ 2100



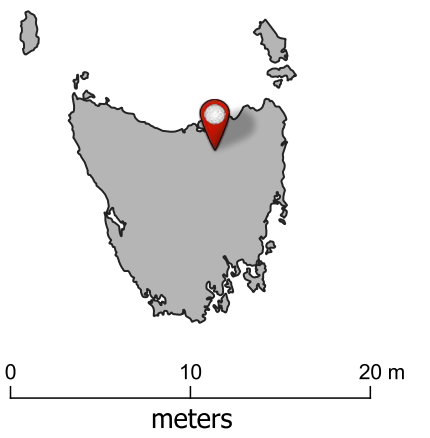
Legend

- 39 Fairway Crescent
- Boundary Lines
- Site Area
- Existing Building Areas

PRE 1% AEP + SLR @2100

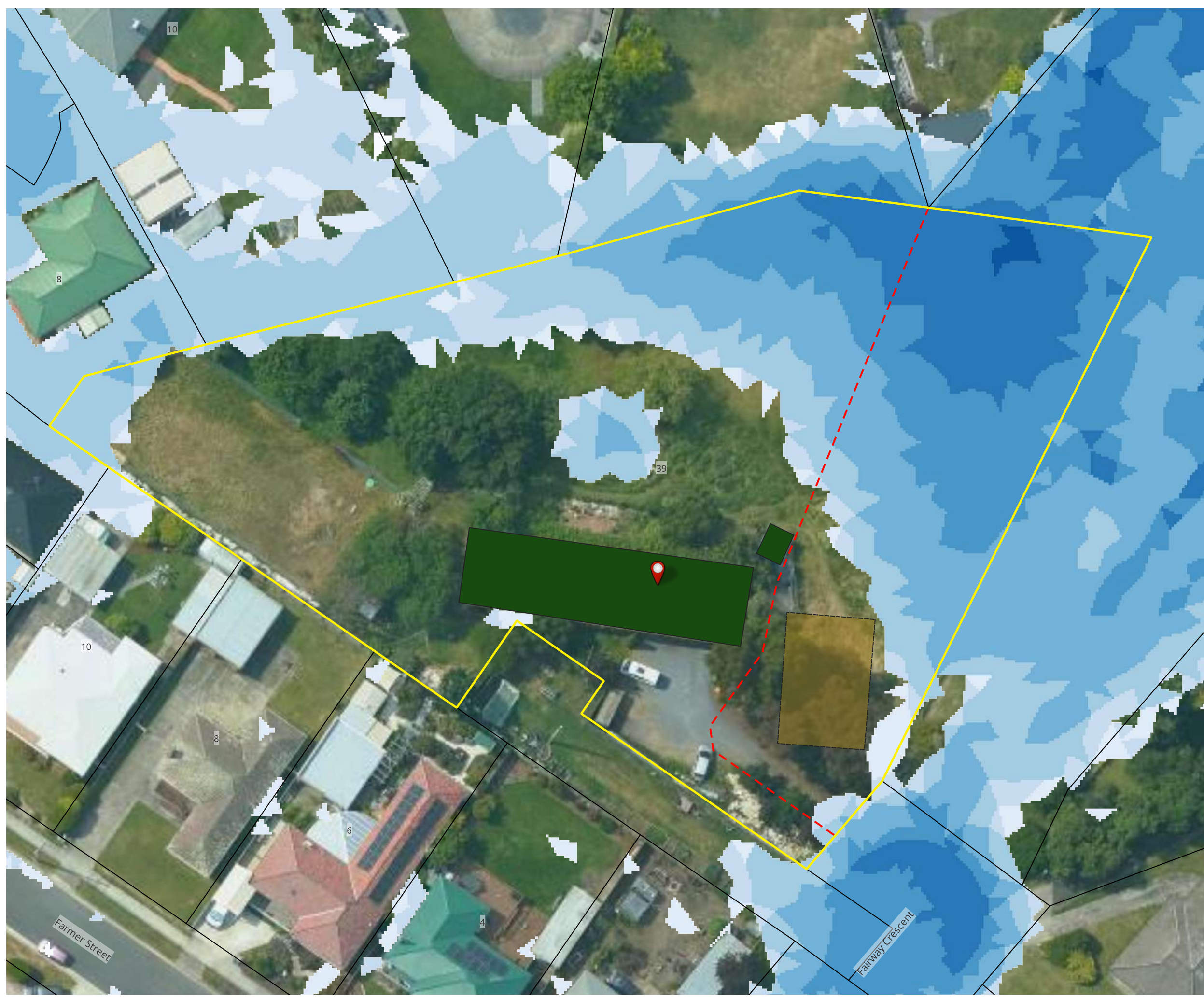
Hazard

- H1
- H2
- H3
- H4
- H5
- H6



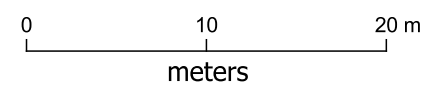
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POST 1% AEP + CC + SLR @ 2100



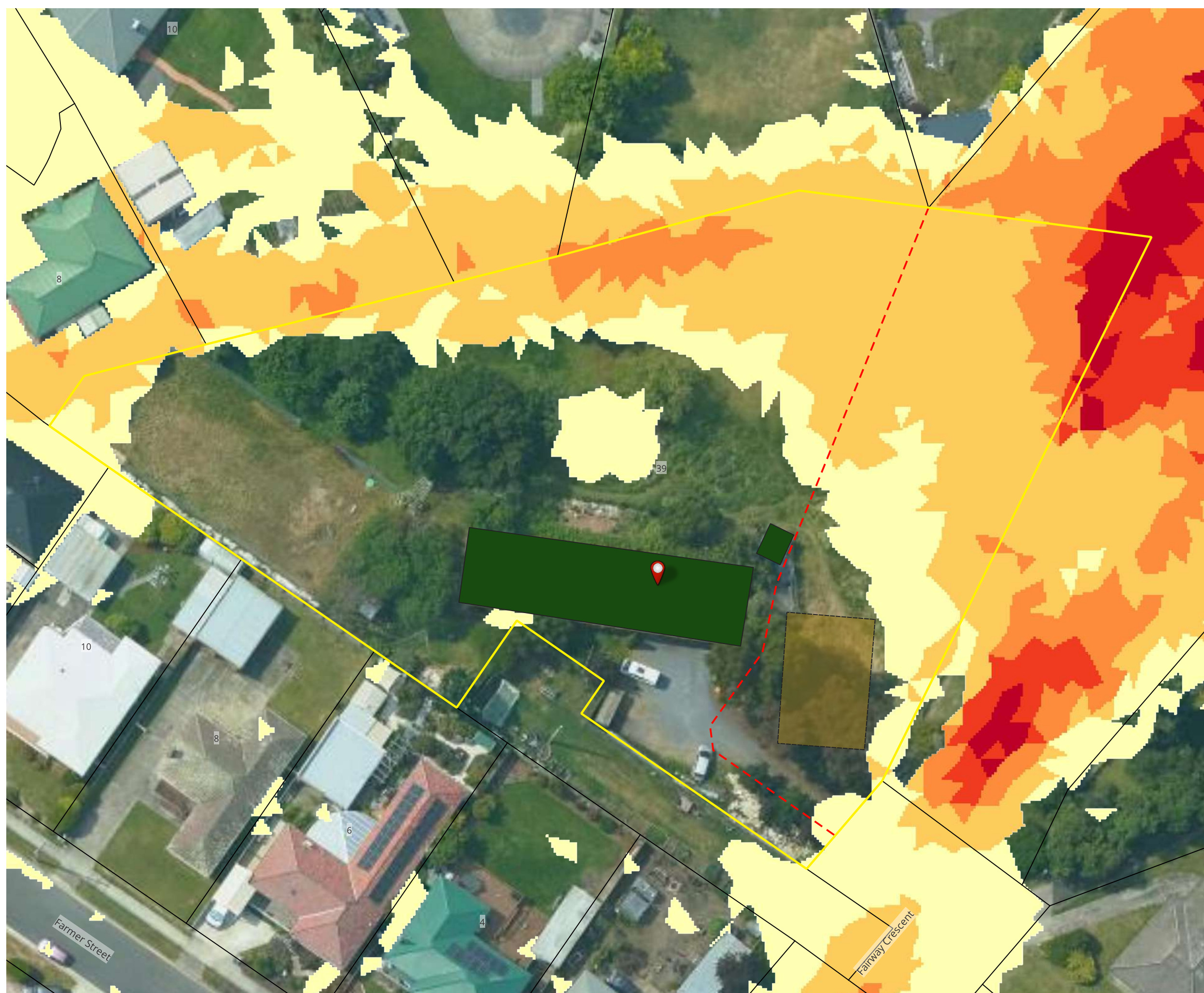
Legend

- 39 Fairway Crescent
- Boundary Lines
- Proposed Boundary Line
- Site Area
- Existing Building Areas
- Proposed Building Envelope
- POST 1% AEP + SLR @2100**
- Depth (m)**
- <= 0.03
- 0.03 - 0.05
- 0.05 - 0.10
- 0.10 - 0.30
- 0.30 - 0.60
- 0.60 - 0.80
- 0.80 - 1.00
- 1.00 - 1.50
- > 1.50



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POST 1% AEP + CC + SLR @ 2100



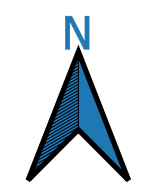
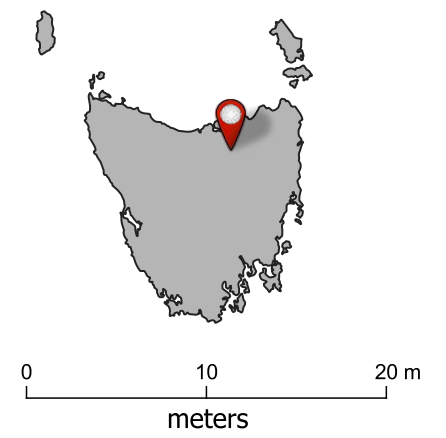
Legend

- 39 Fairway Crescent
- Boundary Lines
- Proposed Boundary Line
- Site Area
- Existing Building Areas
- Proposed Building Envelope

POST 1% AEP + SLR @2100

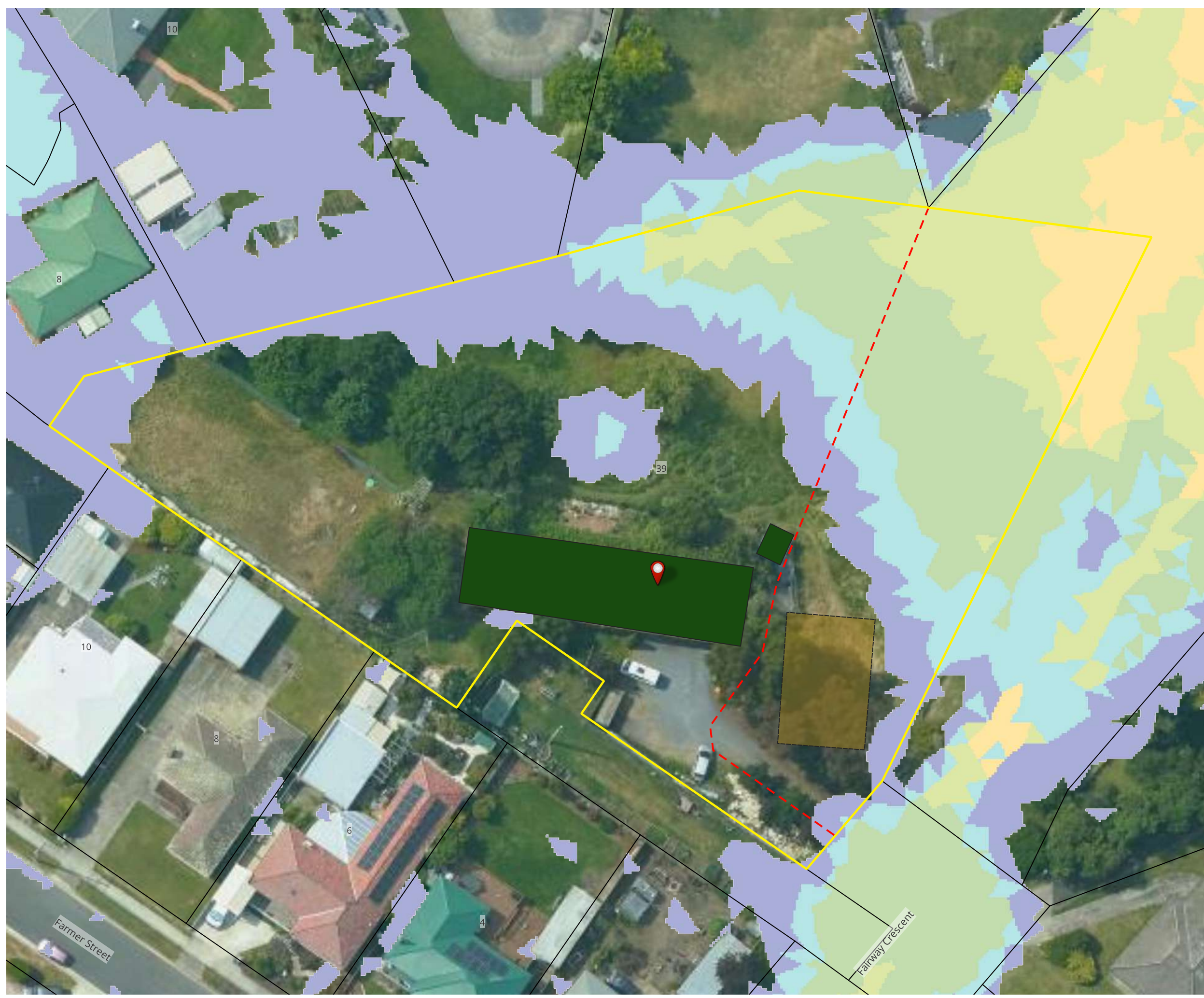
Velocity (m/s)

- <= 0.50
- 0.50 - 1.00
- 1.00 - 1.50
- 1.50 - 2.00
- > 2.00



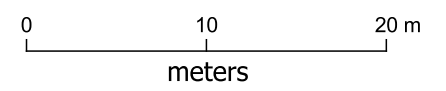
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Hobart, 7000, TASMANIA

POST 1% AEP + CC + SLR @ 2100



Legend

- 39 Fairway Crescent
- Boundary Lines
- Proposed Boundary Line
- Site Area
- Existing Building Areas
- Proposed Building Envelope
- POST 1% AEP + SLR @2100**
- Hazard**
- H1
- H2
- H3
- H4
- H5
- H6



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Appendix B: Risk Matrix


Site/ job number		FE_26105_39 Fairway Crescent Flood and Coastal Inundation Report	RISKS OF THE DEVELOPMENT IMPACTING ON EXISTING FLOOD BEHAVIOUR							
Pre-Development Risk Identification (1% AEP + CC + SS)			Post-Development			Recommendations				
Risk Ref No	Risk Type A - Asset P - Project F - Financial S - Safety	Risk Description	Conclusions derived from report for the post development scenario	Risk with no Treatment			Treatment	Risk following recommended treatment		
				Likelihood	Consequence	Risk Level		Likelihood	Consequence	Risk Level
P1	A, F, S	Whether the use or development is likely to cause or contribute to coastal inundation on the site or on adjacent land	No increased displacement of flood waters observed in flood model. No treatment recommended	Rare	Minor	Low	none required	Rare	Minor	
P2	A, F, S	There is a risk that the use or development cannot achieve and maintain a tolerable risk for the intended life of the use or development, having regard to the nature, intensity and duration of the use.	The development will achieve and maintain a tolerable risk without any additional flood risk measures that those outlined in the flood report.	Rare	Minor	Low	No additional coastal inundation mitigation works are required, subject to finished floor levels, building materials, services and access being designed to respond to the mapped hazard conditions. During major storm or coastal inundation events, occupants should shelter in place until floodwaters have receded and safe access has been restored.	Rare	Minor	
P3	A, F, S	There is a risk that the use or development cannot achieve and maintain a tolerable risk for the intended life of the use or development, having regard to the ability to adapt to a change in the level of risk.	The proposed development is expected to achieve and maintain a tolerable level of risk under the assessed climate change scenario, provided the recommendations in the flood report are implemented. If future coastal inundation or flood hazard mapping is updated, the risk assessment should be reviewed against the updated information.	Rare	Minor	Low	Review the flood and coastal inundation assessment if future adopted climate change projections, coastal hazard levels, or flood mapping materially change.	Rare	Minor	
P4	A, F, S	There is a risk that the use or development cannot achieve and maintain a tolerable risk for the intended life of the use or development, having regard to the ability to maintain access to utilities and services.	The development will achieve and maintain a tolerable risk including access to utilities and services.	Rare	Minor	Low	Temporary loss of safe access may occur during major storm or coastal inundation events from public road access. A shelter-in-place approach is recommended until floodwaters have receded and access conditions have improved.	Rare	Minor	Low
P5	A, F, S	There is a risk that the use or development cannot achieve and maintain a tolerable risk for the intended life of the use or development, having regard to the need for specific coastal inundation hazard reduction or protection measures on the site.	The development will achieve and maintain a tolerable risk without the need for specific coastal reduction or protection measures on the site.	Rare	Minor	Low	none required	Rare	Minor	Low

Appendix C: Coastal Inundation Declaration


Coastal Hazards Report Declaration

Section 1: About the practitioner and methodology

1.1 Practitioner details

Lead / coordinating consultant name (must be an individual)	Max Moller
Academic Qualification/s	<i>Bachelor of Engineering.</i> <i>Post Graduated Certificate in Hydraulic Services Design.</i> Introduction to Coastal Processes and Coastal Engineering <i>FIEAust, EngExec, CPEng, NER, APEC Engineer, IntPE(Aus)</i>
Relevant Experience	20 + years of undertaking various Riverine and Coastal inundation Studies that meets the requirements of current legislation.
Business name and address	Flussig Engineers – 4/116 Bathurst Street, Hobart, 7000
Contact phone number	0431 080 279
Email address	max@flussig.com.au
Signature	
Date	02/06/2026

Supporting consultant name (must be an individual)	Max Moller
Academic Qualification/s	<i>Bachelor of Engineering.</i> <i>Post Graduated Certificate in Hydraulic Services Design.</i> Introduction to Coastal Processes and Coastal Engineering <i>FIEAust, EngExec, CPEng, NER, APEC Engineer, IntPE(Aus)</i>

Relevant Experience	20+ years of undertaking various Riverine and Coastal inundation Studies that meets the requirements of current legislation.
Business address	Flussig Engineers – 4/116 Bathurst Street, Hobart, 7000
Contact phone number	0431 080 279
Email address	max@flussig.com.au
Signature	
Date	03/06/2026

Professional Indemnity

- Insured Company: Flussig Engineers
- Insurance Period: 17/10/25 to 17/10/26
- Amount: \$10,000.000.00

1.2 Methodology

The Methodology adopted for No.39 Fairway Crescent, Riverside Flood and Coastal Inundation study has been prepared in accordance with the *Tasmanian Planning Scheme, Building Act 2016* and regulation 51 and *Director Determination - Coastal Inundation Hazard Areas 2021*.

Section 2: Conclusions about the proposal

Likelihood of the proposed use or development to cause or contribute to the occurrence of coastal erosion and/or coastal inundation on the site or adjacent land¹

Based on the hydraulic assessment prepared by Flüssig Engineers, the proposed subdivision at 39 Fairway Crescent, Riverside, including the nominated building envelope, is not expected to cause or contribute to coastal inundation on the site or adjacent land. Comparison of the pre-development and post-development scenarios indicates only negligible localised changes within the site, with no measurable increase in inundation extent, depth, velocity or hazard on adjoining properties.

Can the proposed use or development achieve and maintain a tolerable risk for the intended life of the use or development, having regard to:

the nature, intensity and duration of the use	The proposed subdivision does not introduce a use that is particularly vulnerable to coastal inundation hazards and is capable of achieving and maintaining a tolerable level of risk over its intended life. The subdivision itself does not increase the coastal hazard affecting the site, and any future development of the proposed lots will be subject to separate planning and building approval processes to ensure coastal hazard risks are appropriately considered.
the type, form and duration of any development	Under the recommendations of this study the future works can withstand a tolerable risk to flood and coastal inundation for the life of the development.
the likely change in the risk across the intended life of the use or development	Coastal inundation has been assessed allowing for projected sea level rise to 2100. Based on the modelling, the proposed subdivision is capable of maintaining a tolerable level of risk over its intended life. The nominated building envelope is located outside the mapped inundation extent. Higher hazard conditions occur within Fairway Crescent, where classifications reach H3, and within lower-lying northern portions of the site, where localised classifications reach H5. These conditions are present under existing conditions and are not increased as a result of the proposed subdivision, subject to the recommendations contained within this report.

<p>the ability to adapt to a change in the level of risk</p>	<p>The proposed subdivision is capable of adapting to changes in coastal inundation risk, as future development will be assessed separately and can incorporate updated hazard information and mitigation measures where required.</p>
<p>the ability to maintain access to utilities and services</p>	<p>The site is subject to coastal inundation risk; however, the proposed development is expected to maintain access to utilities and services over its intended life. While the proposed building envelope is away from inundation extents, access via the Fairway Crescent cul-de-sac may be temporarily unsafe during major events due to hazard classifications of up to H3. A shelter-in-place approach is recommended until floodwaters have receded and safe access has been restored.</p>
<p>the need for specific coastal erosion or coastal inundation hazard reduction or protection measures on the site³</p>	<p>No specific protection measures required.</p>
<p>the need for coastal erosion or coastal inundation reduction or protection measures beyond the boundary of the site³</p>	<p>No broader scale protection measures required.</p>
<p>any coastal erosion or coastal inundation management plan in place for the site or adjacent land³</p>	<p>No specific inundation measurement plan required.</p>

Any advice relating to the ongoing management of the use or development

No specific ongoing flood management measures are required, provided the recommendations of the flood and coastal inundation hazard report are implemented.

Is the use or development located on an actively mobile landform within the coastal zone?

Yes

No

Conclusions relating to any matter specifically required by Performance Criteria in the Coastal Erosion Hazard Code (C10.5 – C10.7) or the Coastal Inundation Hazard Code (C11.6)

The proposed subdivision is considered to satisfy the applicable performance criteria of Clause C11.7.1 of the Coastal Inundation Hazard Code.

Contact Project Manager: Max Moller



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