



Appendix F:

Flood Impact Assessment

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Camperdown Battery Energy System (BESS) Phase 3

Flood Impact Assessment

Camperdown BESS Pty Ltd

29 Ringara Street, Manly West QLD 4179

Prepared by:

SLR Consulting Australia

Level 16, 175 Eagle Street, Brisbane QLD 4000, Australia

SLR Project No.: 620.041535.00001

13 June 2025

Revision: 1.0

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Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
1.0	13 June 2025	GM	NWB	

Basis of Report

This report has been prepared by SLR Consulting Australia (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Camperdown BESS Pty Ltd (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

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Appendices

- Appendix A** **TUFLOW Model Results – Existing Scenario**
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Acronyms and Abbreviations

Acronym	Description
AEP	Annual Exceedance Probability
AHD	Australian Height Datum
ARR	Australian Rainfall and Runoff v4.2
BESS	Battery Energy Storage System
BoM	Bureau of Meteorology
DEM	Digital Elevation Model
HPC	Heavily Parallelised Compute
IFD	Intensity-Frequency-Duration
RoG	Rain-on-Grid
SGS	Sub-grid Sampling

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1.0 Introduction

1.1 Background

Camperdown BESS Pty Ltd (Camperdown BESS) has engaged SLR Consulting Australia Pty Ltd (SLR) to undertake a flood impact assessment (Phase 3) of the proposed development of a Battery Energy Storage System (BESS) at Camperdown, VIC.

The proposed site is located in the Corangamite Shire within the Lake Corangamite catchment. The proposed site is located approximately 1.5 km east of the town of Camperdown. Mount Leura and Mount Sugarloaf are located approximately 1.8 km southwest of the site. The project location is shown in **Figure 1-1**.

The scope of work for the assessment consisted of:

- build an existing scenario Rain-on-Grid (RoG) hydraulic model based on publicly available topographic data and site survey data.
- simulate the model for 50%, 1%, and 0.2% AEP events applying the latest Australian Rainfall and Runoff guidelines (version 4.2).
- incorporate proposed design earthworks model for site into RoG model and simulate the model for relevant design flood events (50%, 1% and 0.2% AEP).
- extract and process results from the existing and developed models, including peak flows, level, velocities, affluxes and extents.
- summarize modelling methodology and results in a Flood Impact Assessment Report.

The data, assumptions, methodology and outcomes of the assessment are provided in this Flood Assessment Report.

This assessment was undertaken in accordance with Australian Rainfall and Runoff (Version 4.2).

1.2 Data

The following data was utilised in the assessment:

- Digital Elevation Model (DEM) of the project site derived from LiDAR 10 Metre Grid (Vicmap).
- Local survey data dated 5 December 2024 provided by Alexander Symonds Surveying Consultants via Camperdown BESS Pty Ltd.
- Design surface DEM of the proposed development.
- Design Rainfall Intensity-Frequency-Duration data for the Project location (Bureau of Meteorology).

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km	
Coordinate System: GDA2020 MGA Zone 54	
Scale:	1:25,000 at A3
Project Number:	620.041535
Date:	16-Dec-2024
Drawn by:	TS

- LEGEND
- Site Boundary
 - Cadastre
 - Watercourses and Drainage Lines

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CAMPERDOWN BESS
PHASE 2 BASELINE FLOOD ASSESSMENT

SITE LOCATION

FIGURE 1-1

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\\au.slr.local\Corporate\Projects\SLR\620-BNE\620.041535\00001 Camperdown BESS - Phase 1 - S0106 SLR Data\01 GIS\ArcFigures\620041535_Site_Location_001.mxd

1.3 Site Description

1.3.1 Existing Site

The site is situated across two existing property parcels being Lot 2 LP34716 and Lot 2 PS817143. The site is bounded by Wiridgil Road to the north, Wire Lane to the east, a railway line to the south and an adjacent property to the west. Access to the Site is via Wiridgil Road.

Ground levels at the site range from 153.6 mAHD in the northeast of the property boundary and 162.3 mAHD in the southwest. The site drains towards Lake Colongulac to the north through a series of drainage channels. The Site generally drains freely to the east with a portion draining towards Wiridgil Road to the west.

Terrain in the vicinity of the site is characterised by a local catchment formed by the ridges Mount Leura. The site layout and terrain are illustrated in **Figure 1-2**.

1.3.2 Proposed Development

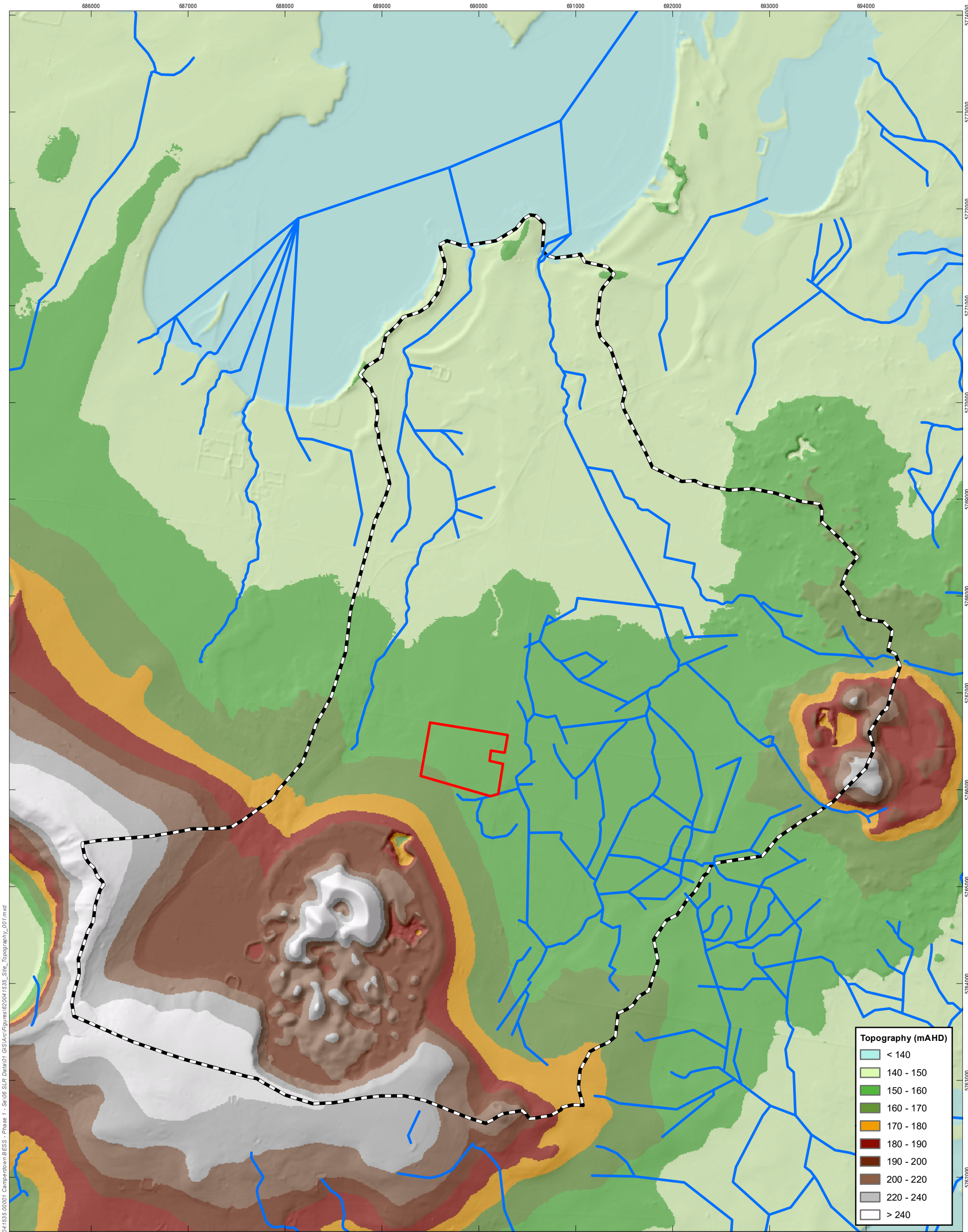
It is proposed to develop the site to accommodate a Battery Energy Storage System (BESS). The Site has an area of approximately 2.9 ha with finished ground levels ranging from 159.7 to 160.7 mAHD.

The proposed development layout is shown in **Figure 1-3**.

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Scale: 1:35,000 at A3
Project Number: 620.041535
Date: 12-Dec-2024
Drawn by: TS

LEGEND

- Site Boundary
- Proposed Model Area
- Watercourses and Drainage Lines

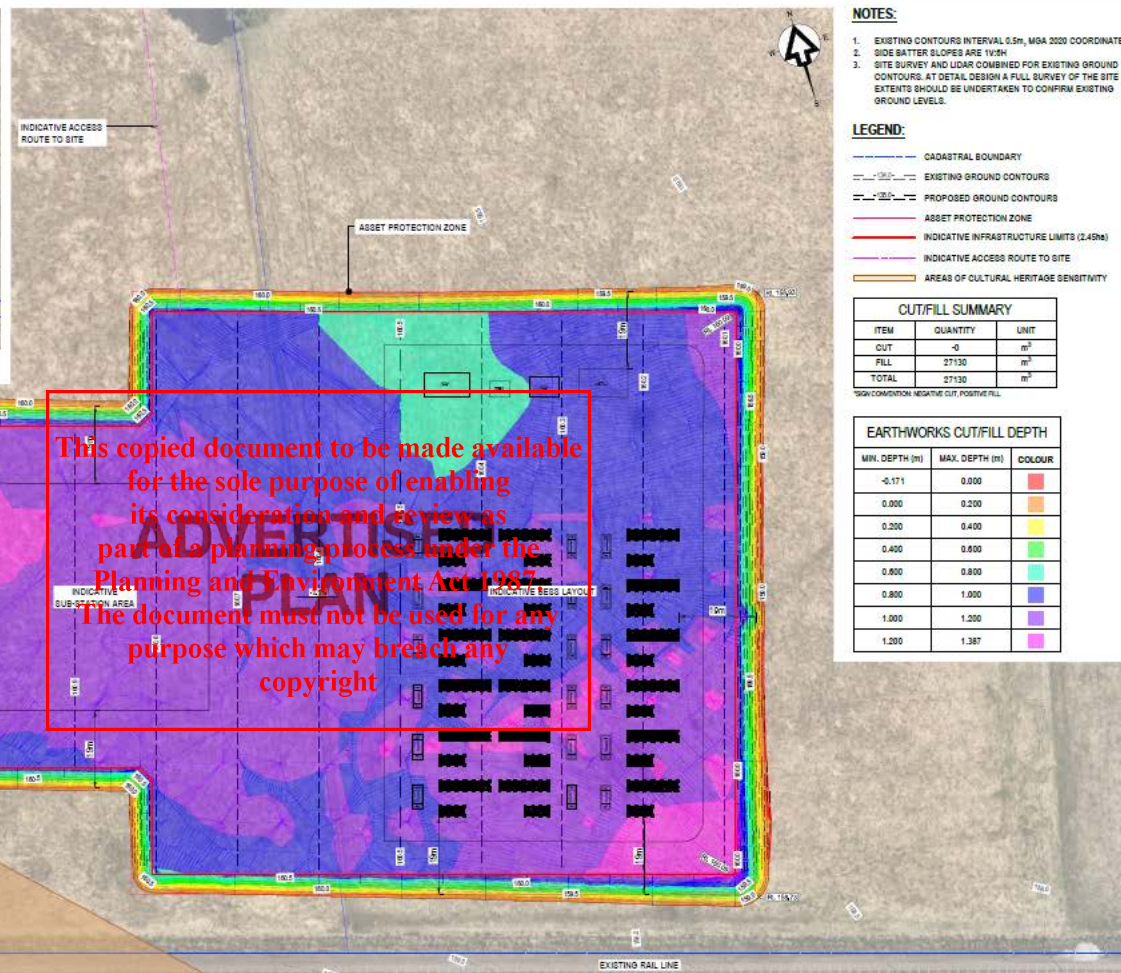
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**CAMPERDOWN BESS
PHASE 2 BASELINE FLOOD ASSESSMENT**

SITE TOPOGRAPHY

FIGURE 1-2



NOTES:

1. EXISTING CONTOURS INTERVAL 0.5m, MGA 2020 COORDINATES.
2. SIDE SLOPES ARE 1V:5H
3. SITE SURVEY AND LIDAR COMBINED FOR EXISTING GROUND CONTOURS. AT DETAIL DESIGN A FULL SURVEY OF THE SITE EXTENTS SHOULD BE UNDERTAKEN TO CONFIRM EXISTING GROUND LEVELS.

LEGEND:

- CADASTRAL BOUNDARY
- EXISTING GROUND CONTOURS
- PROPOSED GROUND CONTOURS
- ASSET PROTECTION ZONE
- INDICATIVE INFRASTRUCTURE LIMITS (2.45m)
- INDICATIVE ACCESS ROUTE TO SITE
- AREAS OF CULTURAL HERITAGE SENSITIVITY

CUT/FILL SUMMARY

ITEM	QUANTITY	UNIT
CUT	-0	m ³
FILL	27130	m ³
TOTAL	27130	m ³

*SIGN CONVENTION: NEGATIVE CUT, POSITIVE DUE

EARTHWORKS CUT/FILL DEPTH

MIN. DEPTH (m)	MAX. DEPTH (m)	COLOR
-0.171	0.000	
0.000	0.200	
0.200	0.400	
0.400	0.600	
0.600	0.800	
0.800	1.000	
1.000	1.200	
1.200	1.387	

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EARTHWORKS LAYOUT PLAN
SCALE 1:500

REVISIONS				
	D	03/05/2025	FOR REVIEW	RS
	C	29/04/2025	FOR REVIEW	RS
	B	29/04/2025	FOR REVIEW	RS
	A	09/12/2024	FOR REVIEW	RS
	DATE	DESCRIPTION		APPROVED



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DESIGN:	RMC	DATE:	02/12/2024
DWG. CHECK:	RS	DATE:	02/12/2024
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QUEST

CAMPERDOWN
PROJECT:
CAMPERDOWN BATTERY ENERGY STORAGE SYSTEM
(BESS) PHASE 1
LOTS 2/LP34716, 2/P8817143 WIRE LN, CAMPERDOWN

NOT FOR CONSTRUCTION

CAMPERDOWN BESS PTY LTD

DRAWING TITLE:
CUT & FILL PRELIMINARY EARTHWORKS LAYOUT PLAN

SCALE
AS SHOWN
DATE

620.041535-CI-1010

SIZE	A1
REVISION	D

2.0 Rain-on-Grid Hydraulic Modelling

2.1 Overview

A two-dimensional hydrodynamic model was developed for the catchment containing the Project Site. A Rain-on-Grid (RoG) approach was adopted for this assessment. RoG is a modelling technique in which rainfall depths are applied directly to the model domain, thereby eliminating the requirement for separate hydrologic modelling. The approach is useful for determining catchment-wide flooding behaviour, particularly localised overland flow paths and ponding which are generally not included when adopting a fluvial modelling approach.

2.2 Software

The hydraulic model was developed using TUFLOW (build 2023-03-AE), which is an industry standard hydrodynamic modelling software. The TUFLOW Heavily Parallelised Compute (HPC) solution scheme was adopted as the preferred scheme, to provide the fastest possible model simulation time. Details of the model setup, methodology and results are provided in the following sections.

2.3 Model Setup

2.3.1 Model Scenarios

Two model scenarios were developed for the FIA:

- Existing Scenario (E03) – representing the existing catchment including the site in its present condition; and
- Developed Scenario (D03) – representing the existing catchment incorporating the proposed development of the site.

The TUFLOW model setup for the existing and developed scenarios is shown in **Figure 2-1** and **Figure 2-2**, respectively.

2.3.2 Topography

The Vicmap 10 metre DEM was adopted as the primary topographic data for this study, which serves as the most readily available data for the area and provides sufficiently detailed ground level information for the entire study area.

The local survey data was incorporated into the model topography over the footprint of the data.

A grid cell size of 10 metres was adopted which was suitable given the resolution of the adopted terrain data. Sub-grid sampling was adopted with 1 metre distance. The sub-grid sampling (SGS) feature provided in TUFLOW was applied in the models to provide increased definition of conveyance paths throughout the two-dimensional domain.

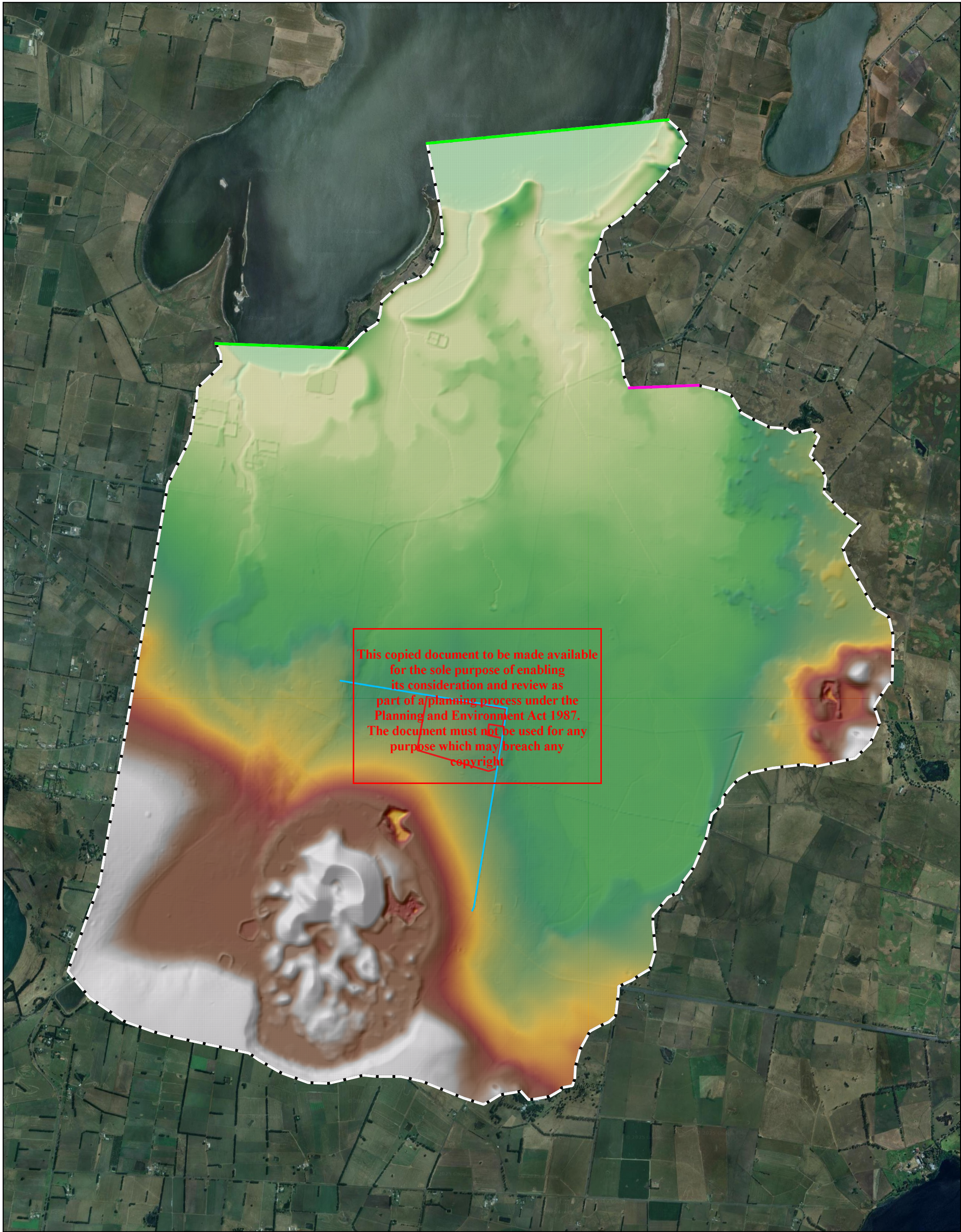
In the developed scenario, the model topography within the site was updated to reflect the proposed design earthworks.

The topography for the existing and developed scenarios are illustrated in **Figure 2-1** and **Figure 2-2**, respectively.

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H:\Projects-SLR\620-BNE\620-BNE\620_041535_00001 Camperdown BESS - Phase 1 - Set06 SLR Data\01 GIS\Camperdown BESS_flood.qgz



0 300 600 m

Coordinate System: GDA2020 MGA zone 54
Scale: 1:35000 at A3
Project Number: 620-BNE16
Date: 26-May-2025
Drawn by: GM

LEGEND



Model Extent



Site Boundary



Direct Rainfall Extent



Breaklines

Downstream Boundaries

Water Level (HT)

Stage-Discharge Relationship (HQ)

Topography (mAHD)

220

130

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FLOOD IMPACT ASSESSMENT

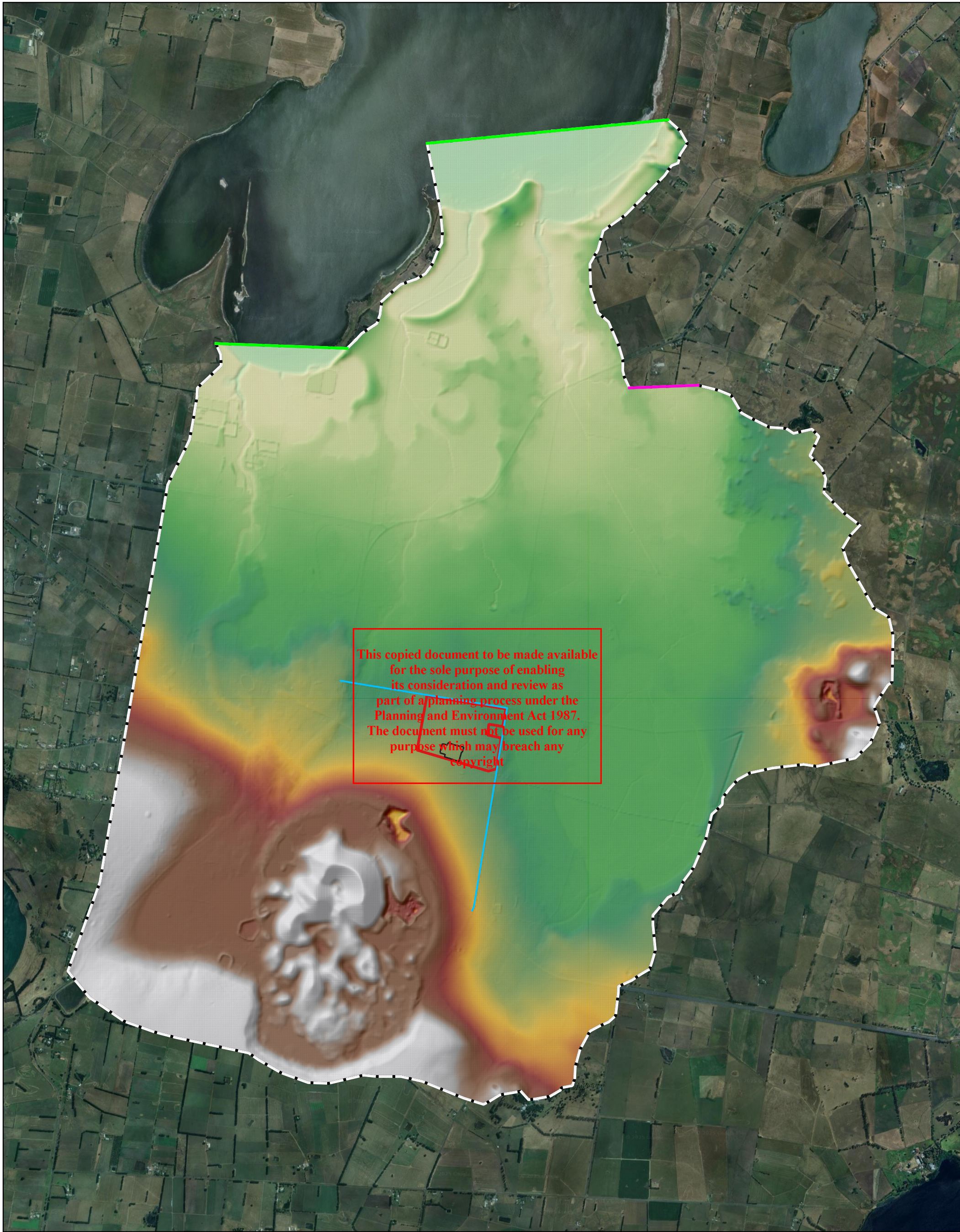
TUFWLOW MODEL SETUP
EXISTING SCENARIO



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FIGURE 2-1

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0 300 600 m

Coordinate System: GDA2020 MGA zone 54
Scale: 1:35000 at A3
Project Number: 620-BNE16
Date: 26-May-2025
Drawn by: GM

LEGEND



Model Extent



Site Boundary



Proposed Development



Direct Rainfall Extent



Breaklines

Downstream Boundaries

Water Level (HT)

Stage-Discharge Relationship (HQ)

Topography (mAHD)

220

130

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FLOOD IMPACT ASSESSMENT

TUFLOW MODEL SETUP
DEVELOPED SCENARIO

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FIGURE 2-2



2.3.3 Boundaries

2.3.3.1 Rainfall and Losses

Design rainfall IFD and temporal pattern data for the project area were obtained from BoM.

Rainfall initial and continuing losses were obtained from the AR&R Data Hub. The adopted initial loss values for the 50%, 1% and 0.2% AEP events are detailed in **Table 2-1**.

Table 2-1 Adopted Initial Loss Values

Duration (h)	AEP Event – Adopted Initial Loss (mm)		
	50%	1%	0.2%
0.5	10.3	10.4	0
0.75	15.4	15.6	0
1	20.6	20.8	0
1.5	21.0	20.0	0
2	20.8	20.3	0

Initial loss values for the 0.2% event were assumed to be zero for all durations given the likely antecedent catchment conditions in such an event. The adopted continuing loss value was 5.2 mm/h for all storm events.

2.3.3.2 Tailwater

The downstream tailwater locations were chosen to ensure that the choice of tailwater conditions would not impact the Project Site. The tailwater conditions adopted for the model were water level boundaries based on flood levels of the Colongulac Lake; and a stage-discharge relationship boundary based on a water surface gradient of 0.3%, in line with the topography at the boundary location. The boundary conditions are shown in **Figure 2-1** and **Figure 2-2**, respectively.

2.3.4 Manning's n

The Manning's roughness values (n) were determined based on aerial imagery data. The values adopted for the study are listed in **Table 2-2**.

Table 2-2 Manning's n

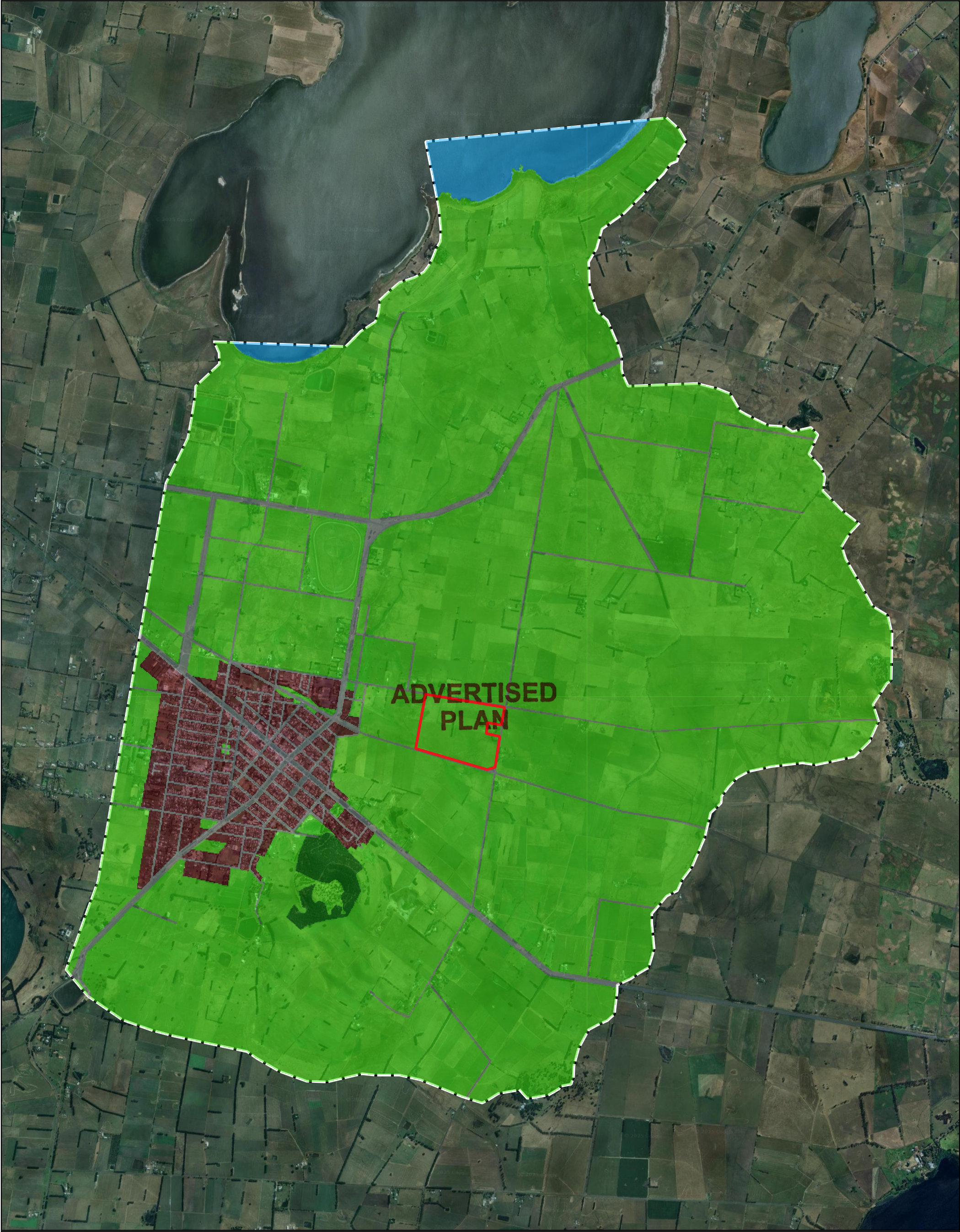
Material Type	Manning's n
Open Water	0.020
Roads	0.025
Short Grass	0.040
Dense Vegetation	0.100
Rural Residential Parcel	0.150
Hardstand	0.025

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Manning's n values for the existing and developed scenarios are shown in **Figure 2-3** and **Figure 2-4**.

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Scale: 1:35000 at A3
Project Number: 620-BNE16
Date: 26-May-2025
Drawn by: GM



LEGEND



Model Extent
Site Boundary

Mannings n

- Open Water: 0.020
- Roads: 0.025
- Short Grass: 0.040
- Dense Vegetation: 0.100
- Rural Residential Parcel: 0.150

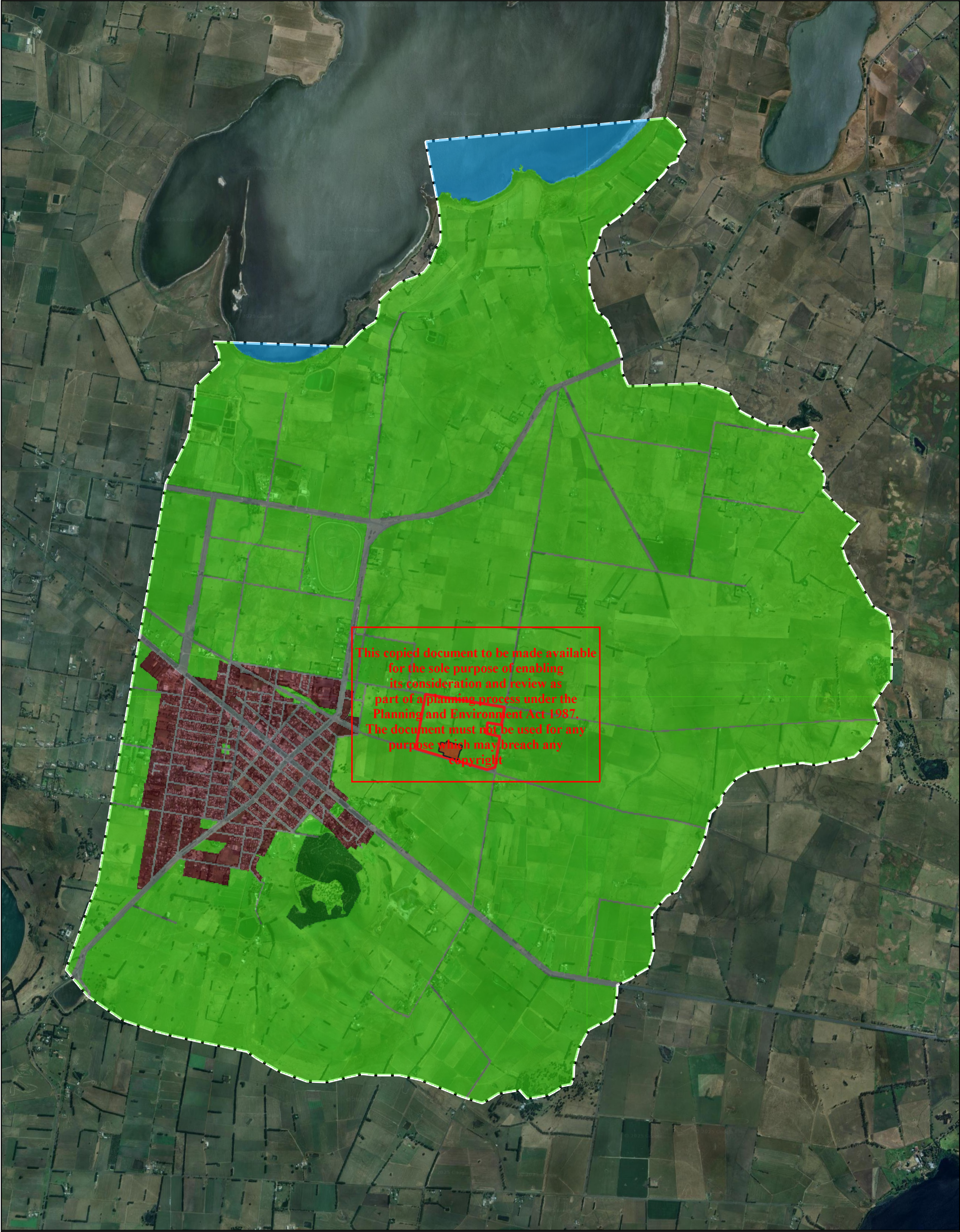
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MANNINGS N VALUES
EXISTING SCENARIO

FIGURE 2-3

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Scale: 1:35000 at A3
Project Number: 620-BNE16
Date: 26-May-2025
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LEGEND

- Model Extent
- Site Boundary
- Proposed Development

- Mannings n
- Open Water: 0.020
 - Roads: 0.025
 - Short Grass: 0.040
 - Dense Vegetation: 0.100

- Rural Residential Parcel: 0.150
- Hardstand: 0.025

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**MANNINGS N VALUES
DEVELOPED SCENARIO**

FIGURE 2-4

2.3.5 Design Storm Events

The suite of design storm events included the 50%, 1%, 0.2% AEP events with a range of storm durations between 30 minutes and 2 hours and 10 temporal patterns for each duration in accordance with ARR.

2.4 Validation

In the absence of gauged data, results of the TUFLOW model were verified against peak flows produced by a DRAINS model. A simple DRAINS model was run for a catchment within the Project Site that does not include significant flood storage. The key parameters adopted in the DRAINS model are shown in **Table 2-3**.

Table 2-3 DRAINS Model Parameters and Results

Parameter	Value
Catchment Area (ha)	342
Flow path length (m)	3500
Flow path slope (%)	0.2
DRAINS Peak Flows (m ³ /s)	6.3
TUFLOW Peak Flows (m ³ /s)	6.7

As shown, the TUFLOW model results were consistent with the results of the DRAINS model. The TUFLOW model was therefore considered adequate for the purposes of the assessment.

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2.5 Results

2.5.1 Existing Scenario

Peak flood extents, levels, depths and velocities were extracted from the TUFLOW model for each simulated design storm event.

The model results for the 1% AEP event showed the peak flood levels within the site ranged from 153.7 mAHD in the northeast to 162.2 mAHD in the southwest. Peak flood depths are generally under 100mm with some areas between 200-450 mm.

The results showed local overland flow paths exist within the site. Most of the site runs in an easterly direction along the northern and southern boundaries of the site, discharging to a localised depression storage downstream of Wire Lane. There is also a flow path running in a north-westerly direction, discharging to a localised depression storage in the western portion of the site.

Ponding depths of up to 450 mm occur in small local depressions in the northwest of the site in the 1% AEP event. Other ponding areas are located in the east of the site with depths under 200 mm.

Peak flood velocities are generally under 0.5 m/s within the site, including within the existing overland flow path.

Peak flood extents, levels and depths for the 1% AEP event produced by the TUFLOW model are illustrated in **Figure 2-5**.

The existing scenario TUFLOW model results including peak flood extents, levels, depths and velocities for the 10%, 1% and 0.5% AEP events are provided in **Appendix A**.

2.5.2 Developed Scenario

The developed scenario was modelled to include the proposed fill pad. Peak flood extents, levels and depths for the 1% AEP event produced by the TUFLOW model are illustrated in **Figure 2-6**. An afflux map for the 1% AEP event is shown in **Figure 2-7**.

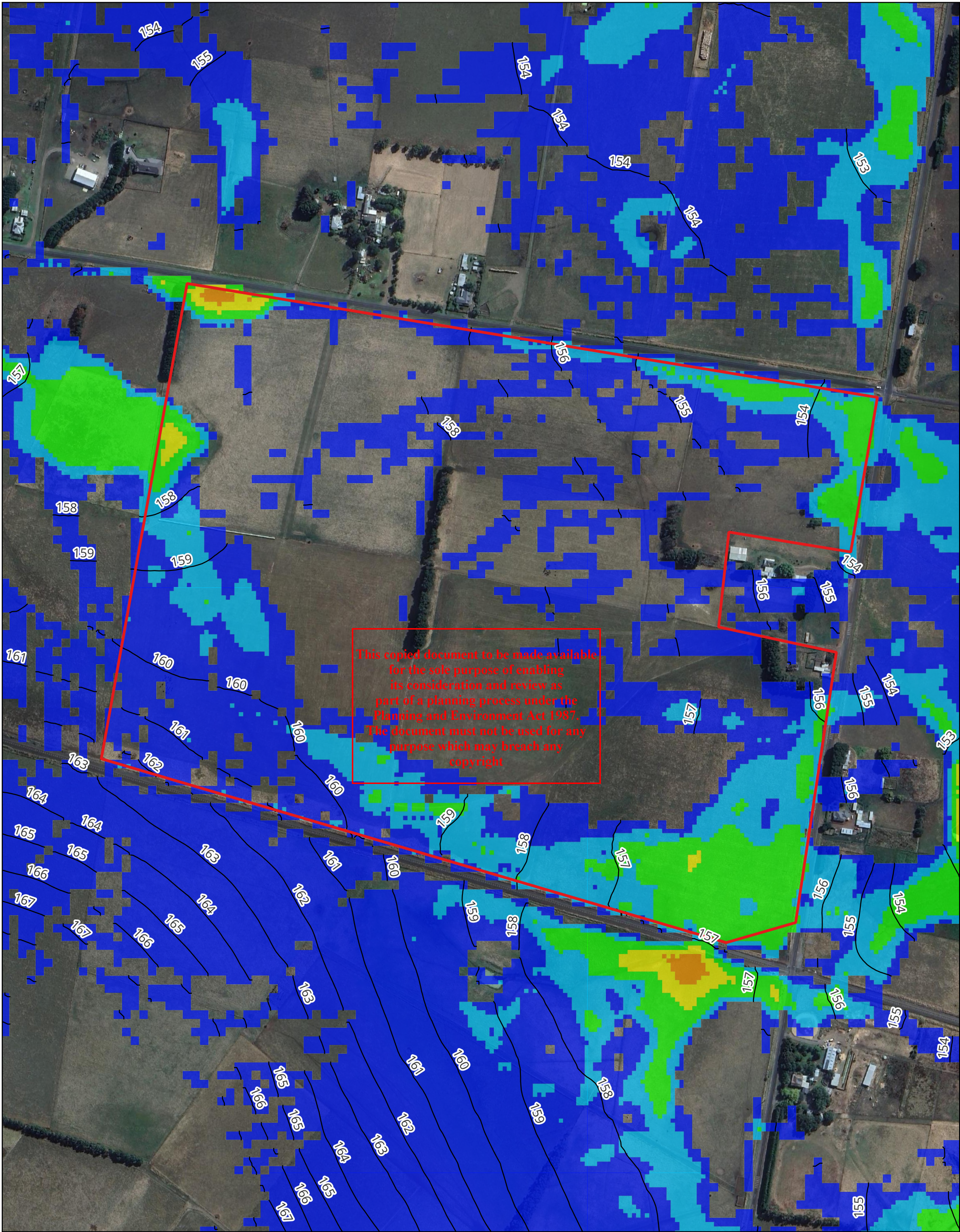
The key model results showed:

- The peak water levels modelled for the developed scenario did not vary significantly from those for existing conditions across the site in the 1% AEP event.
- Peak flood velocities are modelled to be generally under 0.5 m/s within the site with a small portion south of the fill pad reaching 0.75 m/s for the 1% AEP.
- The flood afflux does not indicate any impacts on external properties for all modelled design events including the 0.2% AEP. Water depths are modelled to increase up to 300 mm in several locations around the proposal for the developed scenario due to backwater accumulation in the 1% AEP event. At these locations, it is recommended that localised drains be addressed during the detailed design phase, or that localised shallow depth water ponding for a short period of time is expected.

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0 30 60 m

Coordinate System: GDA2020 MGA zone 54
Scale: 1:4000 at A3
Project Number: 620-BNE16
Date: 28-May-2025
Drawn by: GM

LEGEND



Model Extent



Site Boundary



Flood Level (mAHD)

Flood Depth (m)

0 - 0.05
0.05 - 0.10
0.10 - 0.20
0.20 - 0.30
0.30 - 0.50

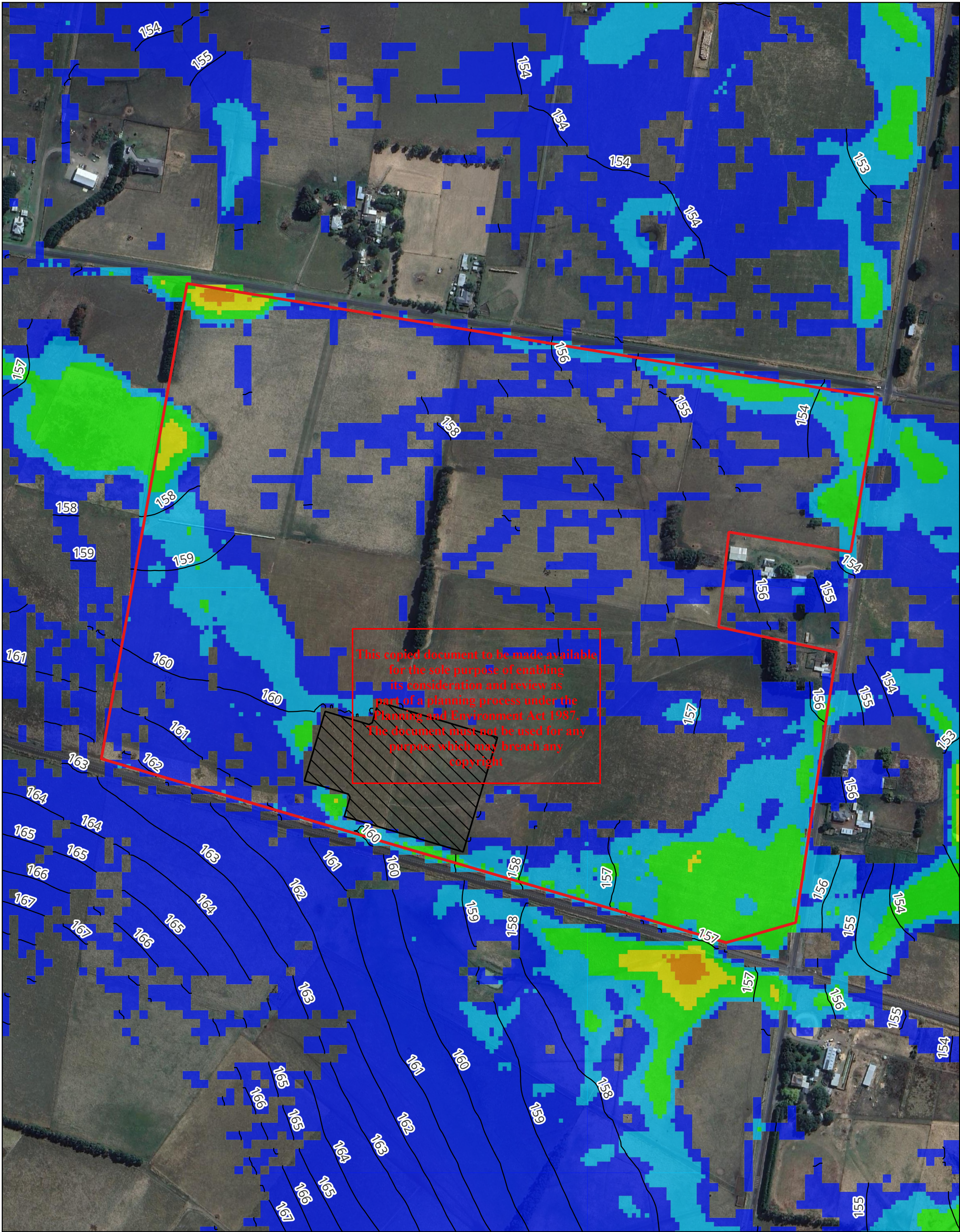
0.50 - 1.00
> 1.00

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CAMPERDOWN BESS
FLOOD IMPACT ASSESSMENT

TUFLOW MODEL RESULTS
PEAK FLOOD DEPTHS AND LEVELS
1% AEP - EXISTING SCENARIO

FIGURE 2-5



0 30 60 m

Coordinate System: GDA2020 MGA zone 54
Scale: 1:4000 at A3
Project Number: 620-BNE16
Date: 09-Jun-2025
Drawn by: GM



LEGEND



Model Extent



Site Boundary



Flood Level (mAHD)



Proposed Development

Flood Depth (m)

0 - 0.05
0.05 - 0.10
0.10 - 0.20
0.20 - 0.30
0.30 - 0.50

0.50 - 1.00
> 1.00

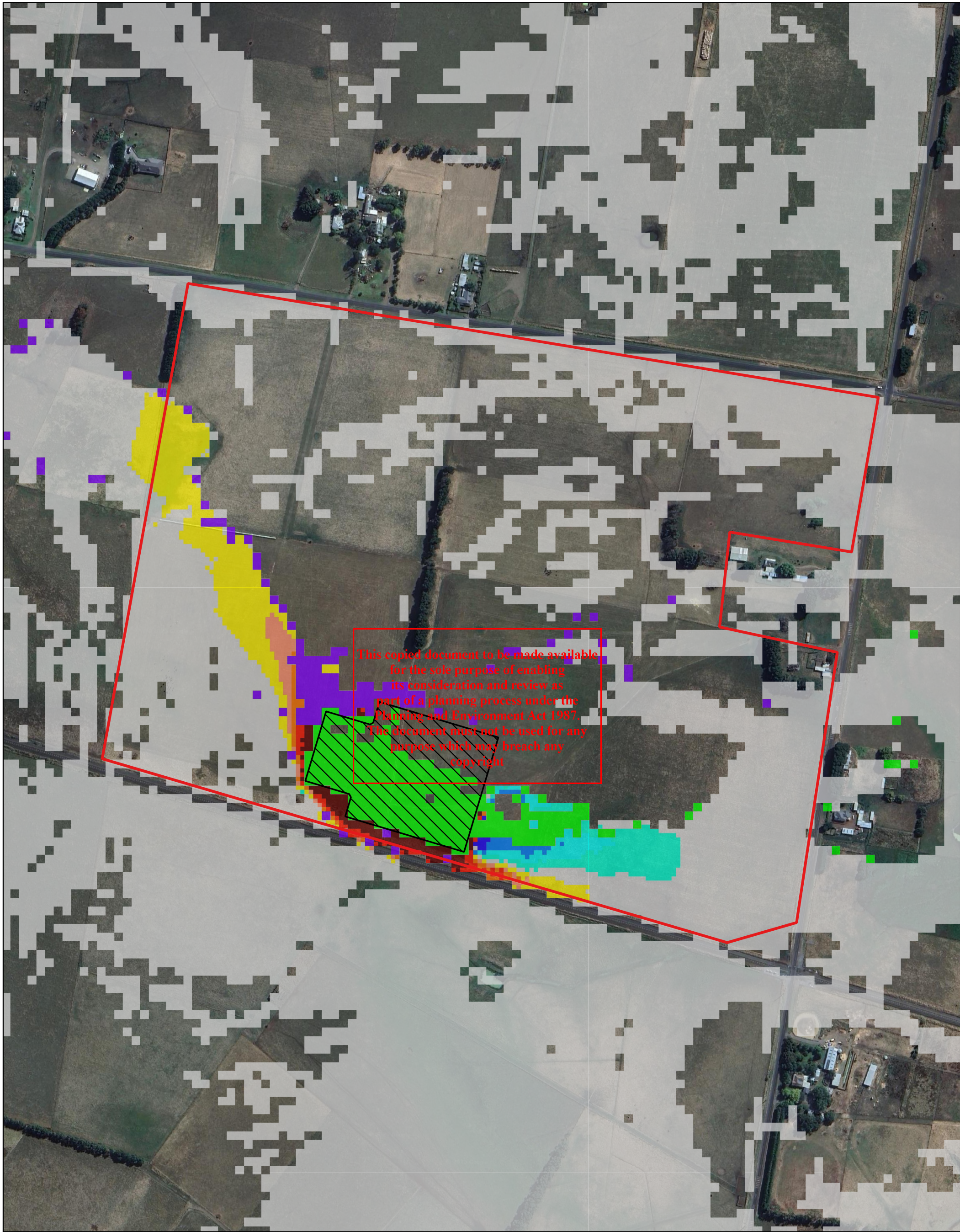
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FLOOD IMPACT ASSESSMENT**

**TUFLOW MODEL RESULTS
PEAK FLOOD DEPTHS AND LEVELS
1% AEP - DEVELOPED SCENARIO**

FIGURE 2-6

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Coordinate System: GDA2020 MGA zone 54
Scale: 1:4000 at A3
Project Number: 620-BNE16
Date: 09-Jun-2025
Drawn by: GM



LEGEND

- Site Boundary
- Proposed Development

Afflux (mm)	
Less than -100	-10 to 10
-100 to -50	10 to 25
-50 to -35	25 to 35
-35 to -25	35 to 50
-25 to -10	50 to 100
	More than 100

- Was wet now dry
- Was dry now wet

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CAMPERDOWN BESS
FLOOD IMPACT ASSESSMENT

TUFLOW MODEL RESULTS
AFFLUX
1% AEP

FIGURE 2-7

3.0 Conclusions

This Flood Impact Assessment was undertaken for Camperdown BESS Pty Ltd to quantify existing flooding conditions in the vicinity of the site and to investigate potential flooding impacts that the proposed development may cause.

A two-dimensional rain-on-grid hydraulic model was developed for the catchment containing the Project Site. The model was developed using suitable publicly available and provided datasets.

The hydraulic model was simulated for a range of design storm durations for the 50%, 1% and 0.2% AEP events in accordance with ARR. Peak flood extents, levels, depths and velocities were extracted from the model results.

Key results of the existing scenario include:

- Peak flood levels in the site range from 153.7 mAHD to 162.2 mAHD
- Peak flood depths are generally less than 100 mm across the site and reach up to 450 mm in the local depressions in the northwest of the site.
- Peak flood velocities are less than 0.5 m/s across the site.

Key results of the developed scenario include:

- The peak water levels modelled for the developed scenario did not vary significantly from those for existing conditions across the site in the 1% AEP event.
- Peak flood velocities are modelled to be generally under 0.5 m/s within the site with a small portion south of the fill pad reaching 0.75 m/s for the 1% AEP.
- The flood afflux does not indicate any impacts on external properties for all modelled design events including the 0.2% AEP. Water depths are modelled to increase up to 300 mm in several locations around the proposal for the developed scenario due to backwater accumulation in the 1% AEP event. At these locations, it is recommended that localised drains be addressed during the detailed design phase, or that localised shallow depth water ponding for a short period of time is expected.

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4.0 References

Ball J, Babister M, Nathan R, Weeks W, Weinmann E, Retallick M, Testoni I, (Editors)
Australian Rainfall and Runoff: A Guide to Flood Estimation, © Commonwealth of Australia
(Geoscience Australia), Version 4.2, 2019.

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Appendix A TUFLOW Model Results – Existing Scenario

Camperdown Battery Energy System (BESS) Phase 3

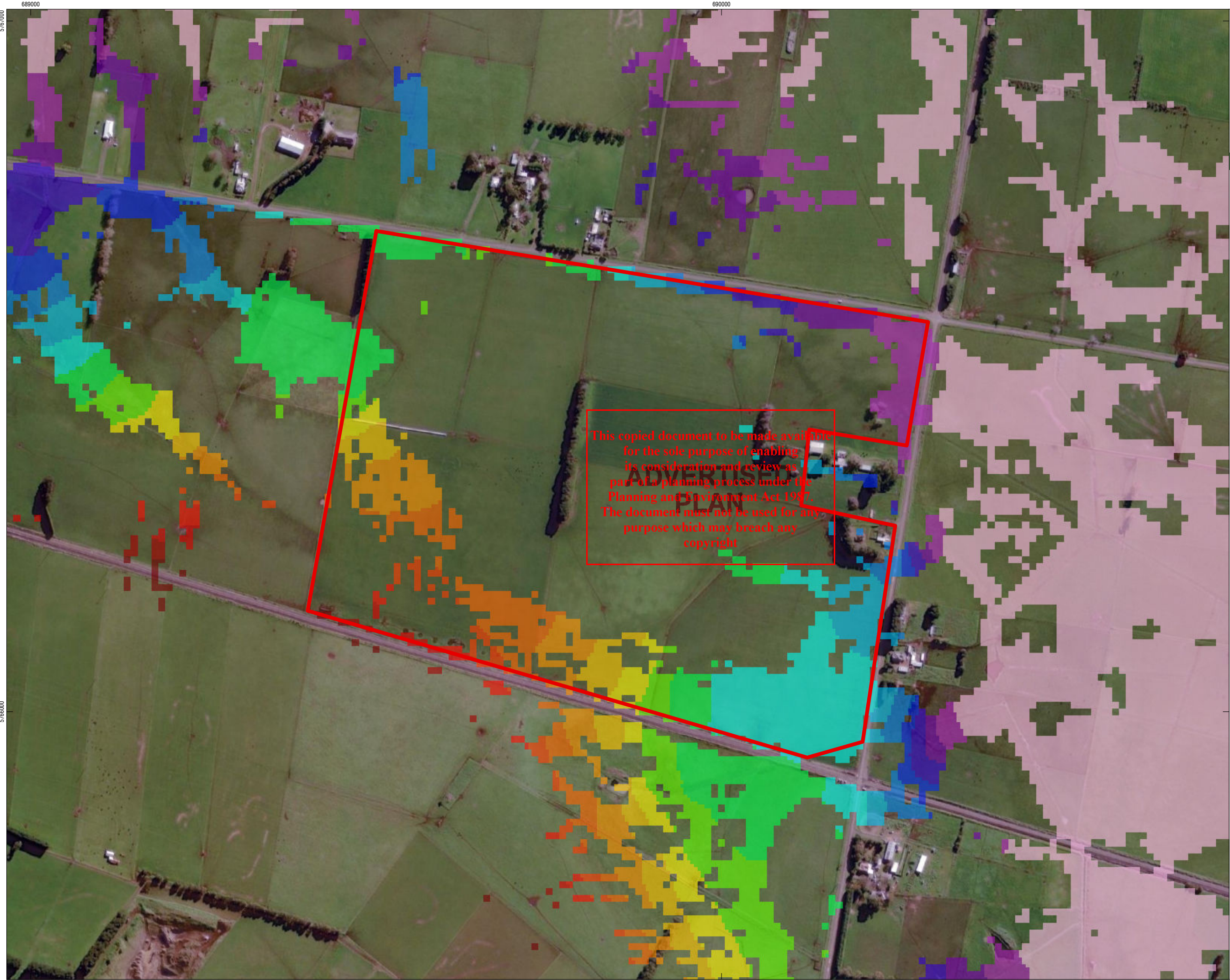
Flood Impact Assessment

Camperdown BESS Pty Ltd

SLR Project No.: 620.041535.00001

13 June 2025

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**Camperdown BESS
Flood Impact Assessment**

**Existing Scenario (E03)
Peak Flood Levels - 50% AEP**

APPENDIX A1-1

Legend
Site Boundary

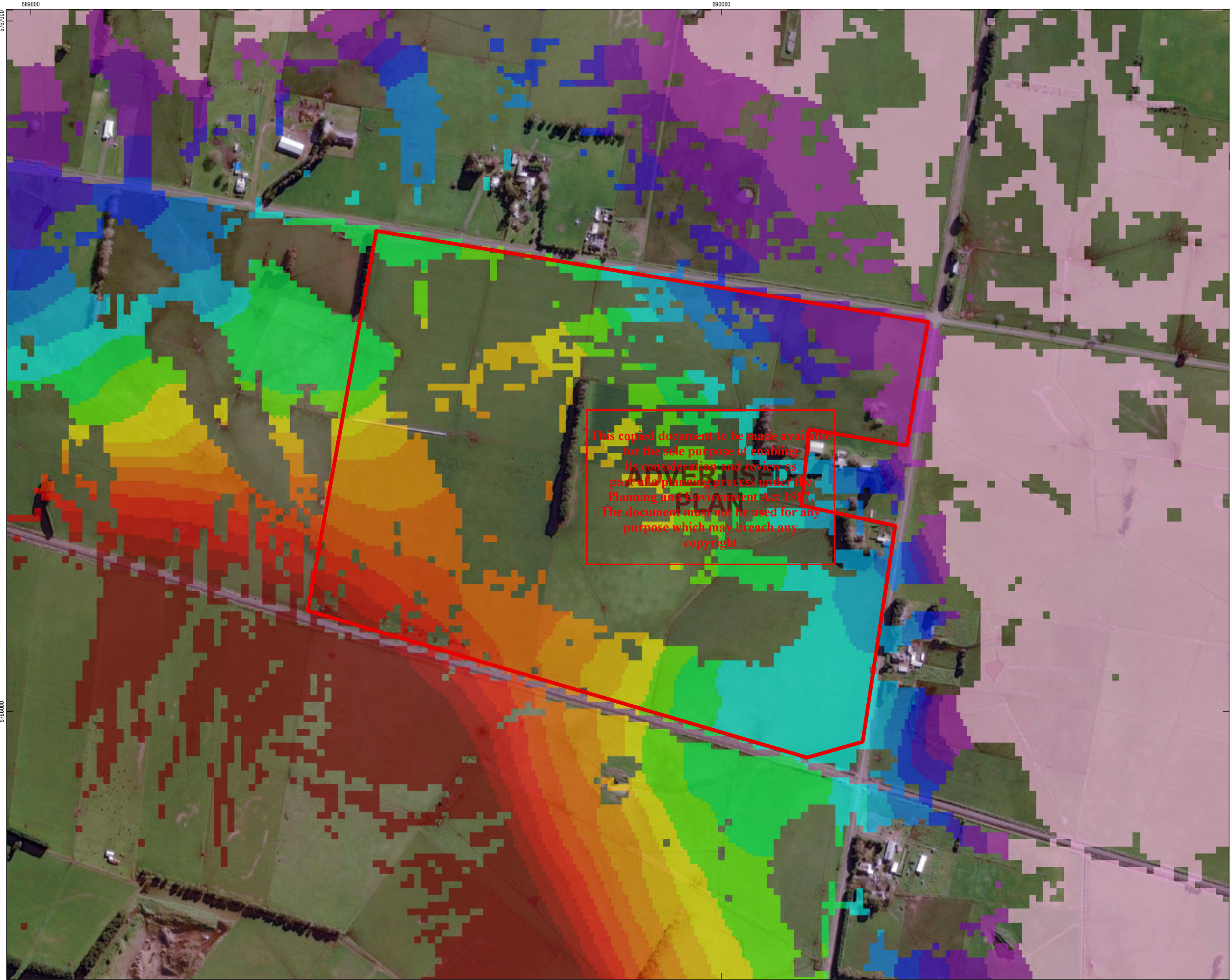
Level (m AHD)

Less than 153.5
153.5 - 154.0
154.0 - 154.5
154.5 - 155.0
155.0 - 155.5
155.5 - 156.0
156.0 - 156.5
156.5 - 157.0
157.0 - 157.5
157.5 - 158.0
158.0 - 158.5
158.5 - 159.0
159.0 - 159.5
159.5 - 160.0
160.0 - 160.5
160.5 - 161.0
161.0 - 161.5
161.5 - 162.0
Greater than 162



Coordinate System:	GDA2020 MGA Zone 54
Scale:	1:5,000 at A3
Project Number:	620.041822
Date:	9/06/2025
Drawn by:	HM





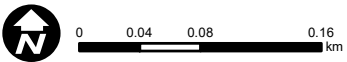
**Camperdown BESS
Flood Impact Assessment**

**Existing Scenario (E03)
Peak Flood Levels - 1% AEP**

APPENDIX A1-2

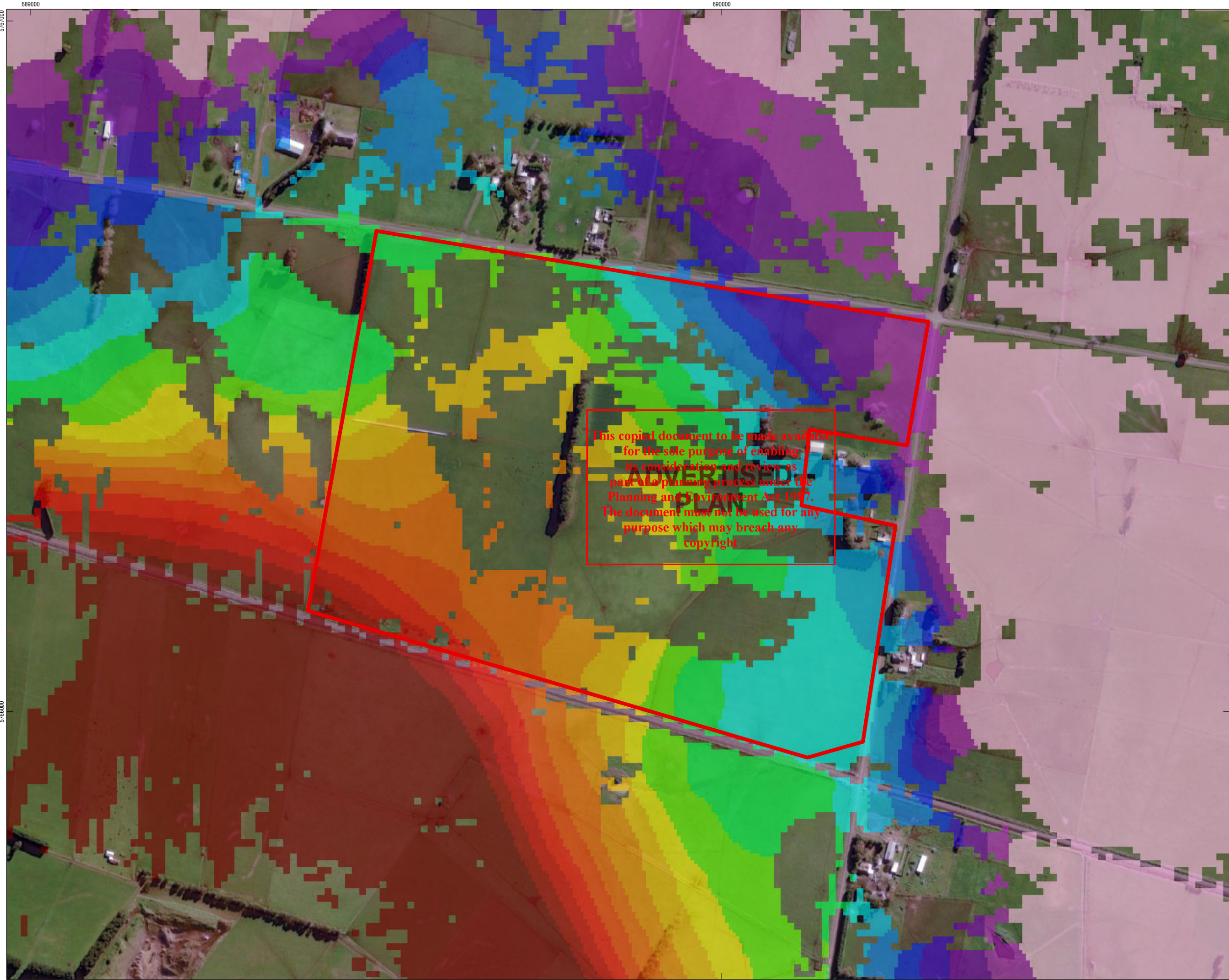
Legend
Site Boundary

- Level (m AHD)**
- Less than 153.5
 - 153.5 - 154.0
 - 154.0 - 154.5
 - 154.5 - 155.0
 - 155.0 - 155.5
 - 155.5 - 156.0
 - 156.0 - 156.5
 - 156.5 - 157.0
 - 157.0 - 157.5
 - 157.5 - 158.0
 - 158.0 - 158.5
 - 158.5 - 159.0
 - 159.0 - 159.5
 - 159.5 - 160.0
 - 160.0 - 160.5
 - 160.5 - 161.0
 - 161.0 - 161.5
 - 161.5 - 162.0
 - Greater than 162



Coordinate System: GDA2020 MGA Zone 54
Scale: 1:5,000 at A3
Project Number: 620.041822
Date: 9/06/2025
Drawn by: HM





Camperdown BESS
Flood Impact Assessment

Existing Scenario (E03)
Peak Flood Levels - 0.2% AEP

APPENDIX A1-3

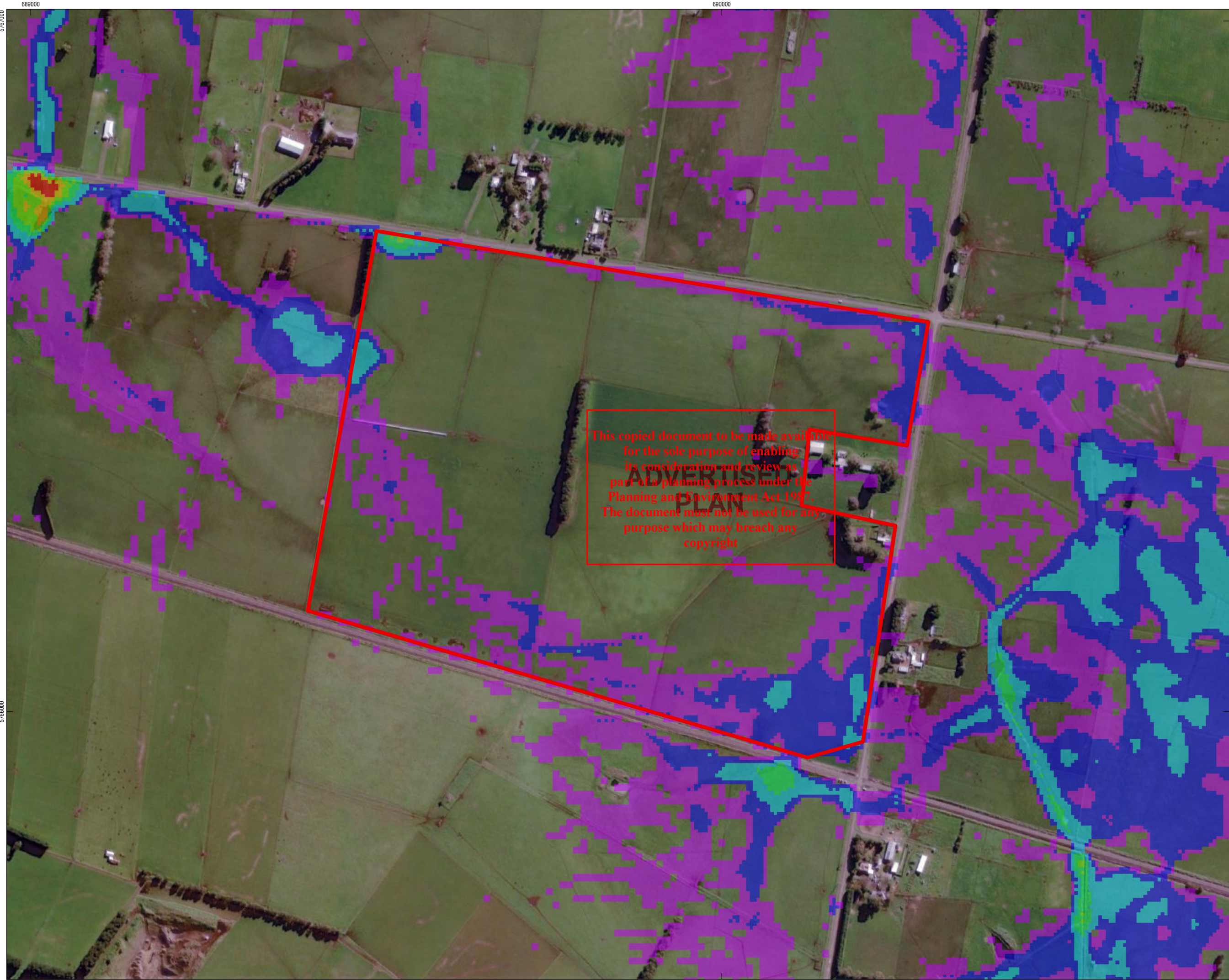
Legend
Site Boundary

- Level (m AHD)
- Less than 153.5
 - 153.5 - 154.0
 - 154.0 - 154.5
 - 154.5 - 155.0
 - 155.0 - 155.5
 - 155.5 - 156.0
 - 156.0 - 156.5
 - 156.5 - 157.0
 - 157.0 - 157.5
 - 157.5 - 158.0
 - 158.0 - 158.5
 - 158.5 - 159.0
 - 159.0 - 159.5
 - 159.5 - 160.0
 - 160.0 - 160.5
 - 160.5 - 161.0
 - 161.0 - 161.5
 - 161.5 - 162.0
 - Greater than 162



Coordinate System: GDA2020 MGA Zone 54
Scale: 1:5,000 at A3
Project Number: 620.041822
Date: 9/06/2025
Drawn by: HM





Camperdown BESS
Flood Impact Assessment

Existing Scenario (E03)
Peak Flood Depths - 50% AEP

APPENDIX A2-1

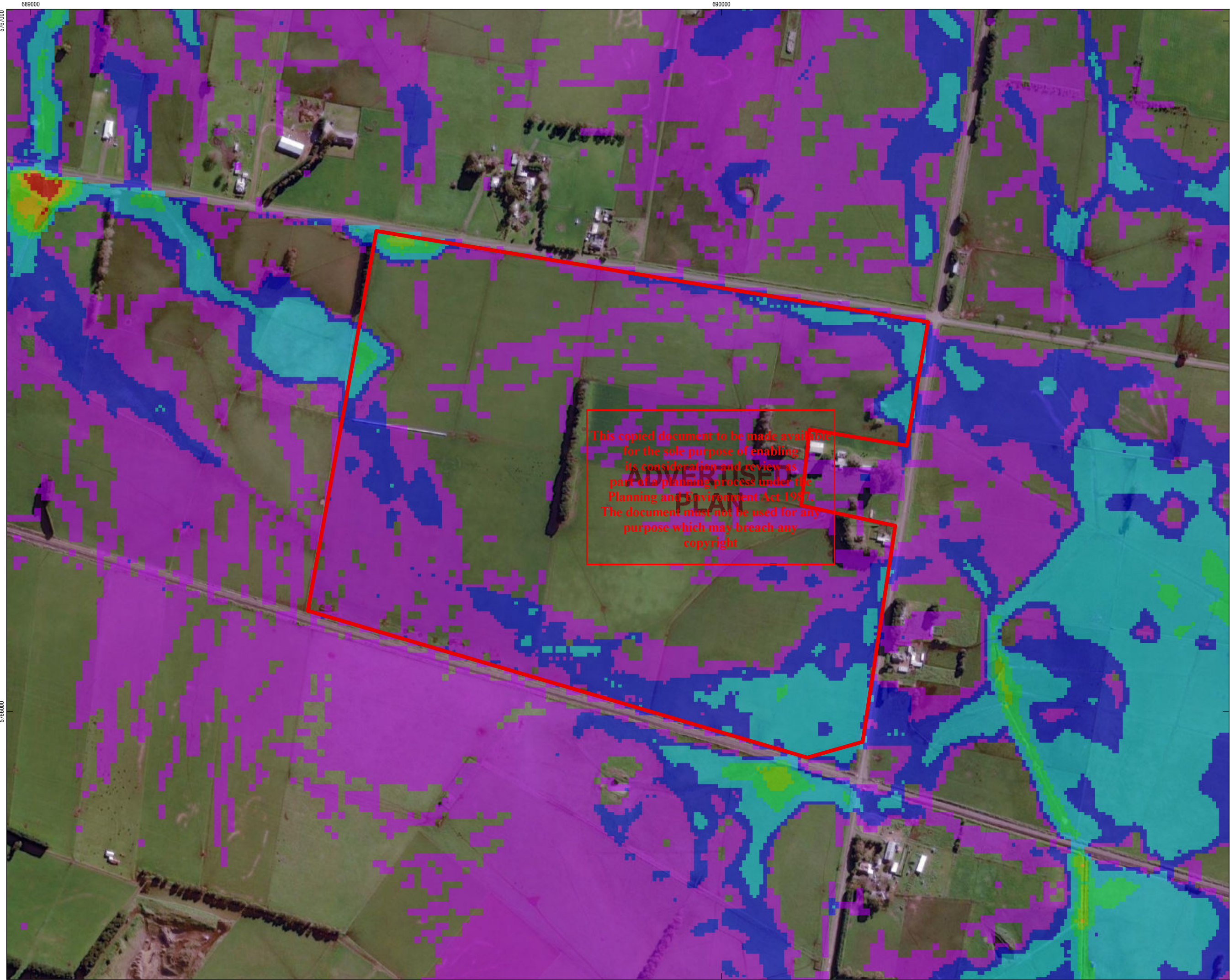
Legend
Site Boundary

Depth (m)
0 - 0.05
0.05 - 0.1
0.1 - 0.2
0.2 - 0.3
0.3 - 0.4
0.4 - 0.5
> 0.5



Coordinate System: GDA2020 MGA Zone 54
Scale: 1:5,000 at A3
Project Number: 620.041822
Date: 9/06/2025
Drawn by: HM





Camperdown BESS
Flood Impact Assessment

Existing Scenario (E03)
Peak Flood Depths - 1% AEP

APPENDIX A2-2

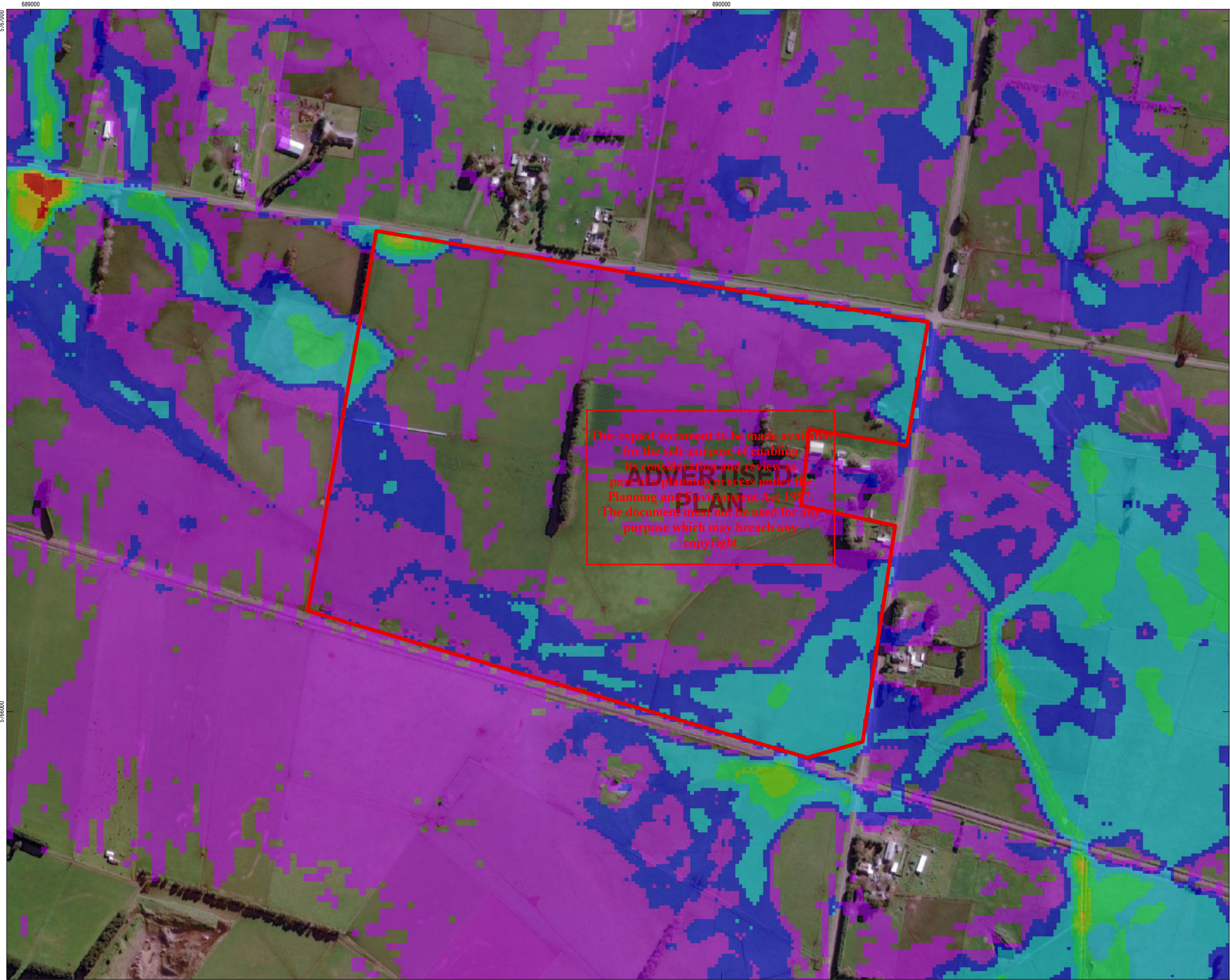
Legend
Site Boundary

- Depth (m)
- 0 - 0.05
 - 0.05 - 0.1
 - 0.1 - 0.2
 - 0.2 - 0.3
 - 0.3 - 0.4
 - 0.4 - 0.5
 - > 0.5



Coordinate System:	GDA2020 MGA Zone 54
Scale:	1:5,000 at A3
Project Number:	620.041822
Date:	9/06/2025
Drawn by:	HM





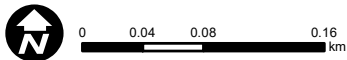
Camperdown BESS
Flood Impact Assessment

Existing Scenario (E03)
Peak Flood Depths - 0.2% AEP

APPENDIX A2-3

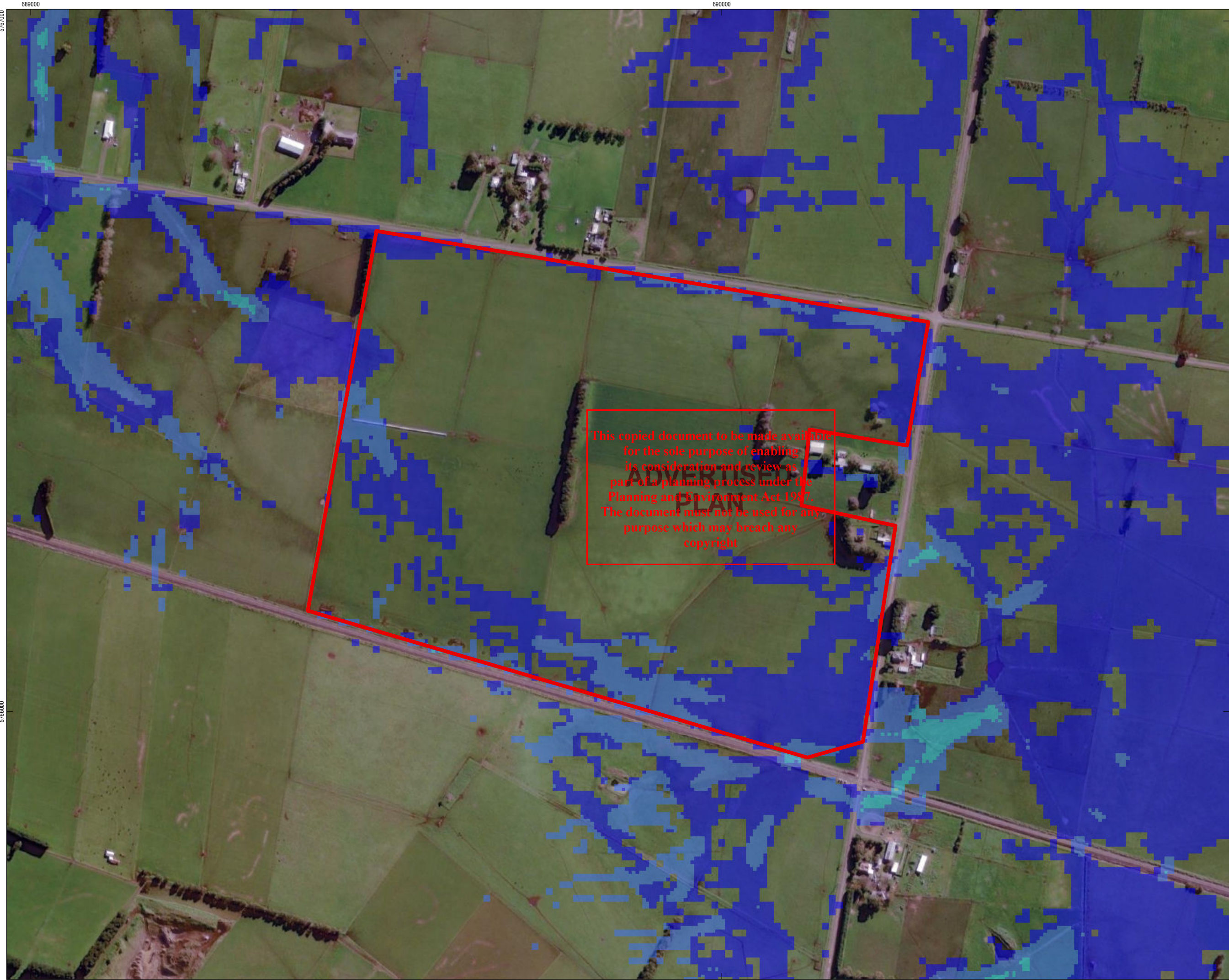
Legend
Site Boundary

- Depth (m)
- 0 - 0.05
 - 0.05 - 0.1
 - 0.1 - 0.2
 - 0.2 - 0.3
 - 0.3 - 0.4
 - 0.4 - 0.5
 - > 0.5



Coordinate System:	GDA2020 MGA Zone 54
Scale:	1:5,000 at A3
Project Number:	620.041822
Date:	9/06/2025
Drawn by:	HM





Camperdown BESS
Flood Impact Assessment

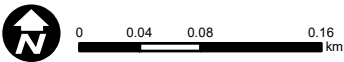
Existing Scenario (E03)
Peak Flood Velocities - 50% AEP

APPENDIX A3-1

Legend
Site Boundary

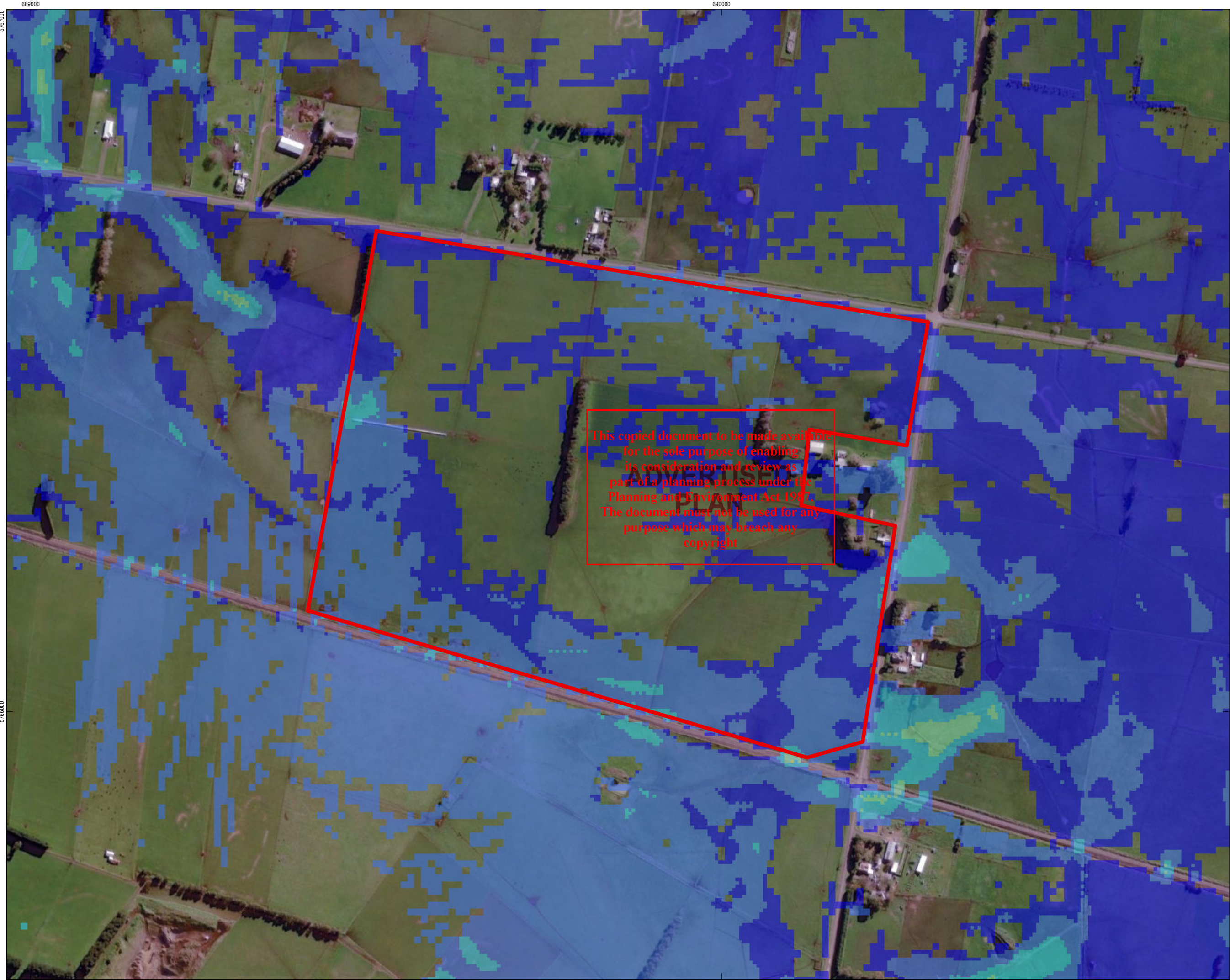
Velocity (m/s)

- 0 - 0.25
- 0.25 - 0.5
- 0.5 - 0.75
- 0.75 - 1.0
- 1.00 - 1.25
- 1.250 - 1.5
- 1.50 - 2.0
- > 2.0



Coordinate System: GDA2020 MGA Zone 54
Scale: 1:5,000 at A3
Project Number: 620.041822
Date: 9/06/2025
Drawn by: HM





Camperdown BESS
Flood Impact Assessment

Existing Scenario (E03)
Peak Flood Velocities - 1% AEP

APPENDIX A3-2

Legend
Site Boundary

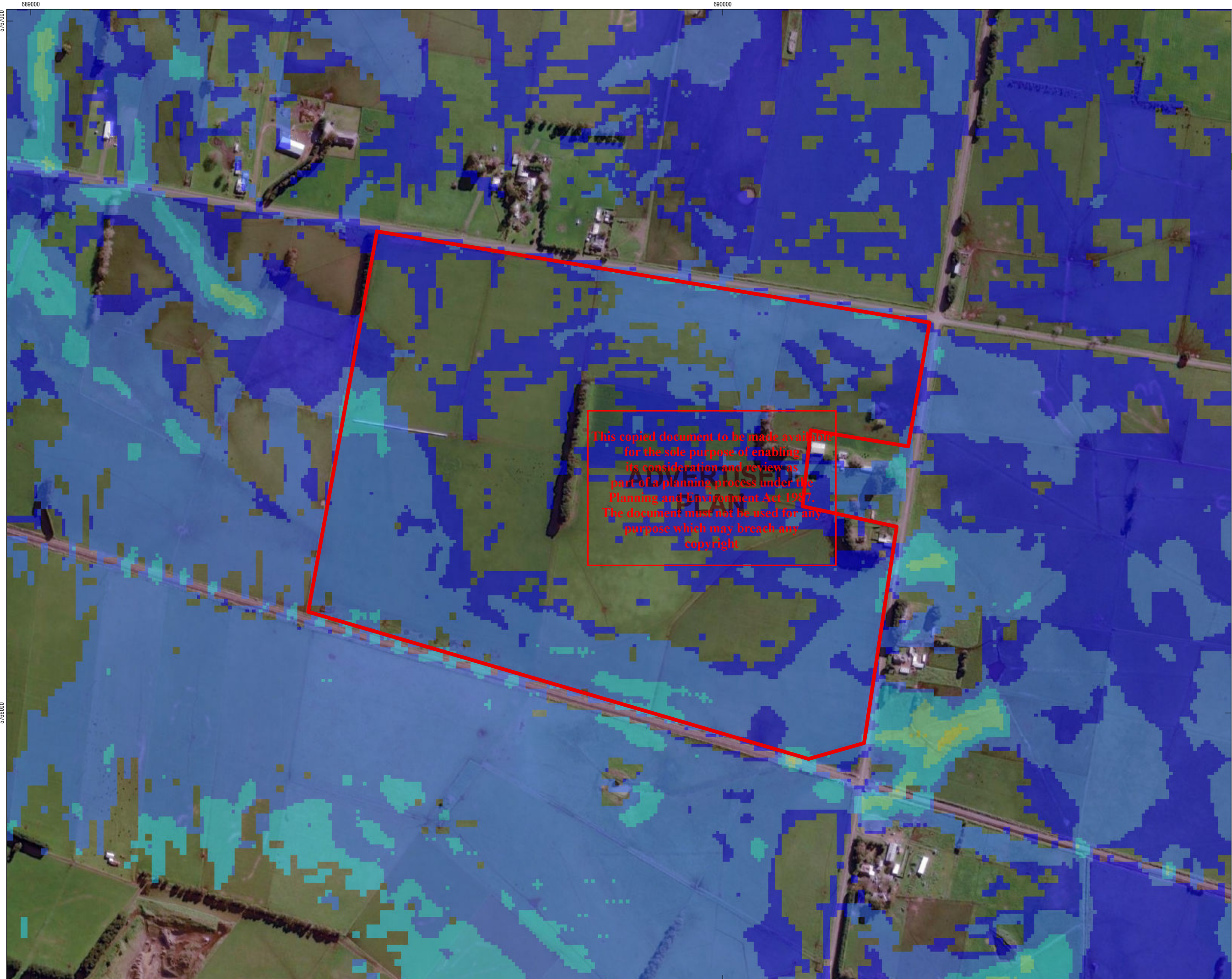
Velocity (m/s)

- 0 - 0.25
- 0.25 - 0.5
- 0.5 - 0.75
- 0.75 - 1.0
- 1.00 - 1.25
- 1.250 - 1.5
- 1.50 - 2.0
- > 2.0



Coordinate System: GDA2020 MGA Zone 54
Scale: 1:5,000 at A3
Project Number: 620.041822
Date: 9/06/2025
Drawn by: HM





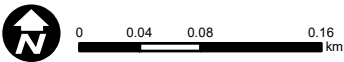
Camperdown BESS
Flood Impact Assessment

Existing Scenario (E03)
Peak Flood Velocities - 0.2% AEP

APPENDIX A3-3

Legend
Site Boundary

- Velocity (m/s)
- 0 - 0.25
 - 0.25 - 0.5
 - 0.5 - 0.75
 - 0.75 - 1.0
 - 1.00 - 1.25
 - 1.250 - 1.5
 - 1.50 - 2.0
 - > 2.0



Coordinate System:	GDA2020 MGA Zone 54
Scale:	1:5,000 at A3
Project Number:	620.041822
Date:	9/06/2025
Drawn by:	HM



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Appendix B TUFLOW Model Results – Developed Scenario

Camperdown Battery Energy System (BESS) Phase 3

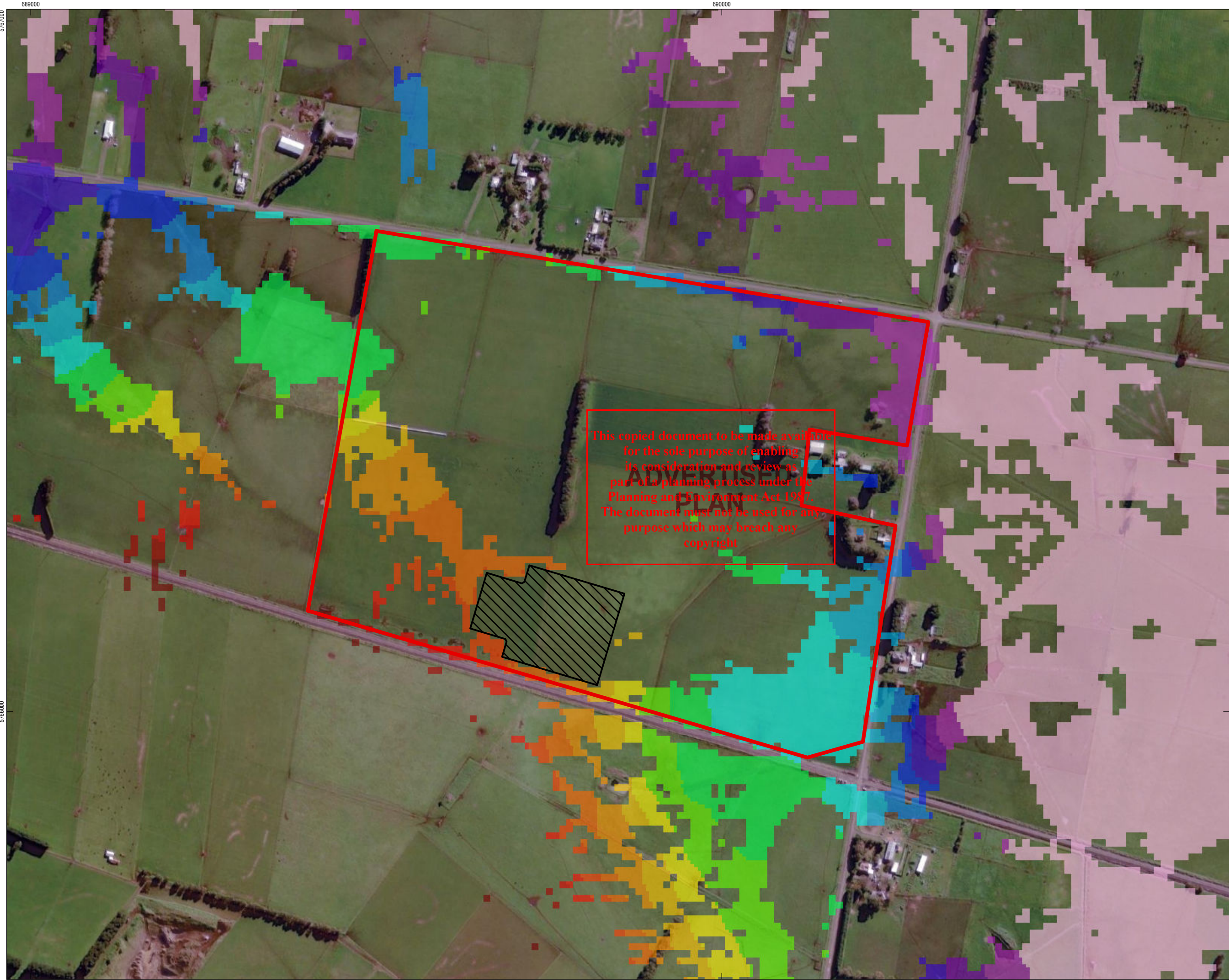
Flood Impact Assessment

Camperdown BESS Pty Ltd

SLR Project No.: 620.041535.00001

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Camperdown BESS
Flood Impact Assessment

Developed Scenario (D03)
Peak Flood Levels - 50% AEP

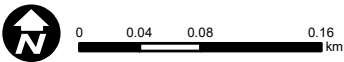
APPENDIX B1-1

Legend

- Site Boundary
- Proposed Development

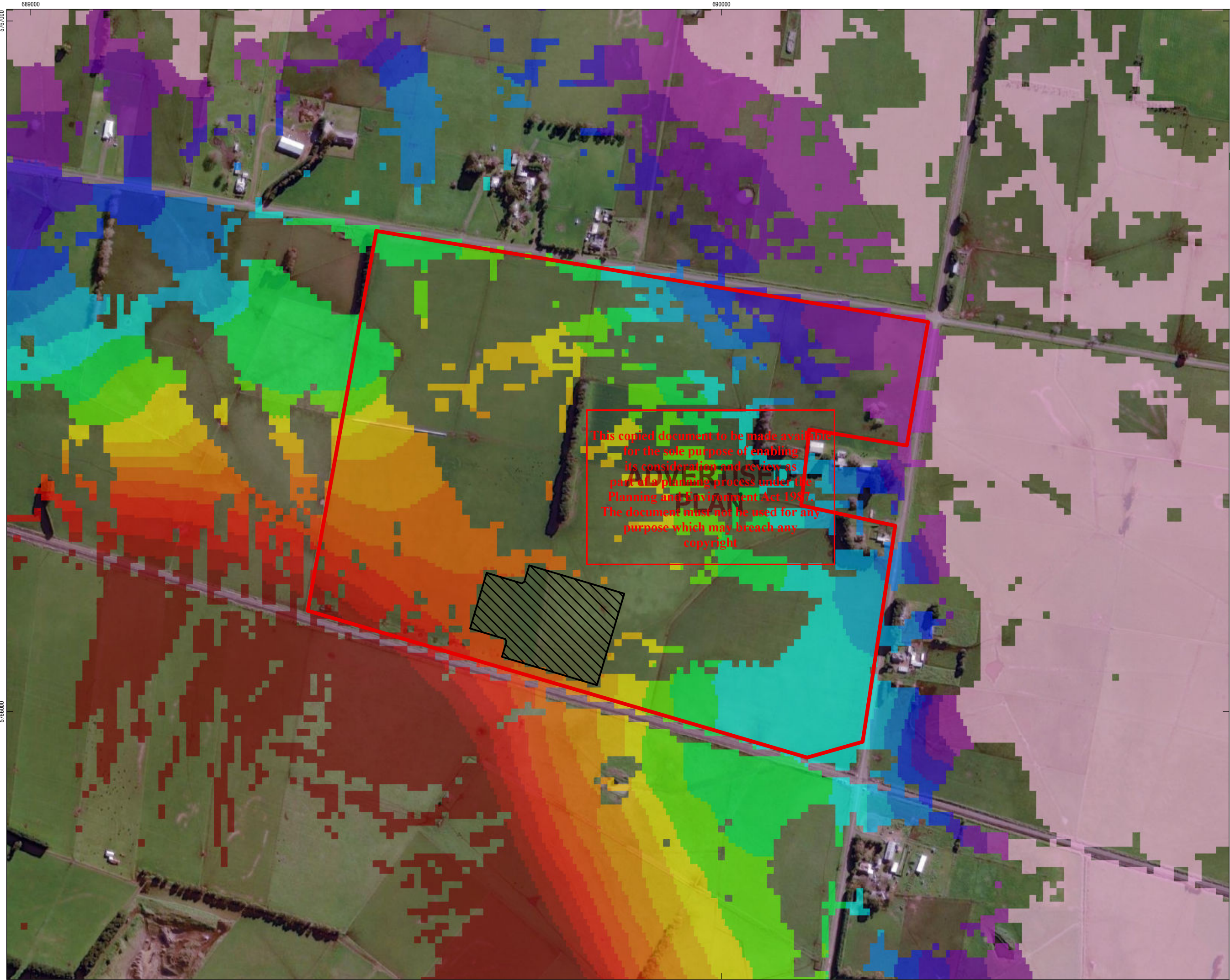
Level (m AHD)

- Less than 153.5
- 153.5 - 154.0
- 154.0 - 154.5
- 154.5 - 155.0
- 155.0 - 155.5
- 155.5 - 156.0
- 156.0 - 156.5
- 156.5 - 157.0
- 157.0 - 157.5
- 157.5 - 158.0
- 158.0 - 158.5
- 158.5 - 159.0
- 159.0 - 159.5
- 159.5 - 160.0
- 160.0 - 160.5
- 160.5 - 161.0
- 161.0 - 161.5
- 161.5 - 162.0
- Greater than 162



Coordinate System: GDA2020 MGA Zone 54
Scale: 1:5,000 at A3
Project Number: 620.041822
Date: 9/06/2025
Drawn by: HM





**Camperdown BESS
Flood Impact Assessment**

**Developed Scenario (D03)
Peak Flood Levels - 1% AEP**

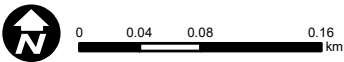
APPENDIX B1-2

Legend

- Site Boundary
- Proposed Development

Level (m AHD)

- Less than 153.5
- 153.5 - 154.0
- 154.0 - 154.5
- 154.5 - 155.0
- 155.0 - 155.5
- 155.5 - 156.0
- 156.0 - 156.5
- 156.5 - 157.0
- 157.0 - 157.5
- 157.5 - 158.0
- 158.0 - 158.5
- 158.5 - 159.0
- 159.0 - 159.5
- 159.5 - 160.0
- 160.0 - 160.5
- 160.5 - 161.0
- 161.0 - 161.5
- 161.5 - 162.0
- Greater than 162



Coordinate System: GDA2020 MGA Zone 54

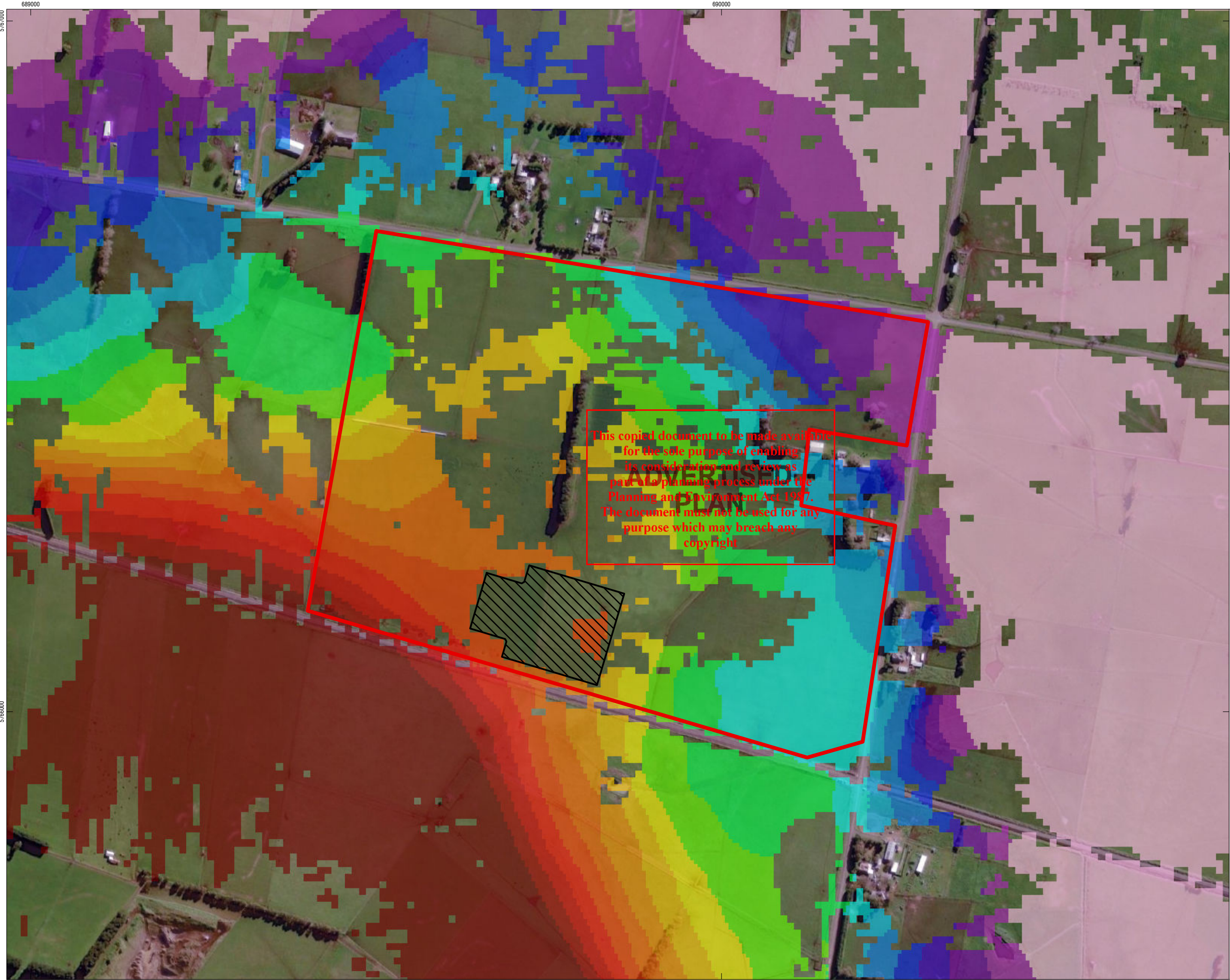
Scale: 1:5,000 at A3

Project Number: 620.041822

Date: 9/06/2025

Drawn by: HM





**Camperdown BESS
Flood Impact Assessment**

**Developed Scenario (D03)
Peak Flood Levels - 0.2% AEP**

APPENDIX B1-3

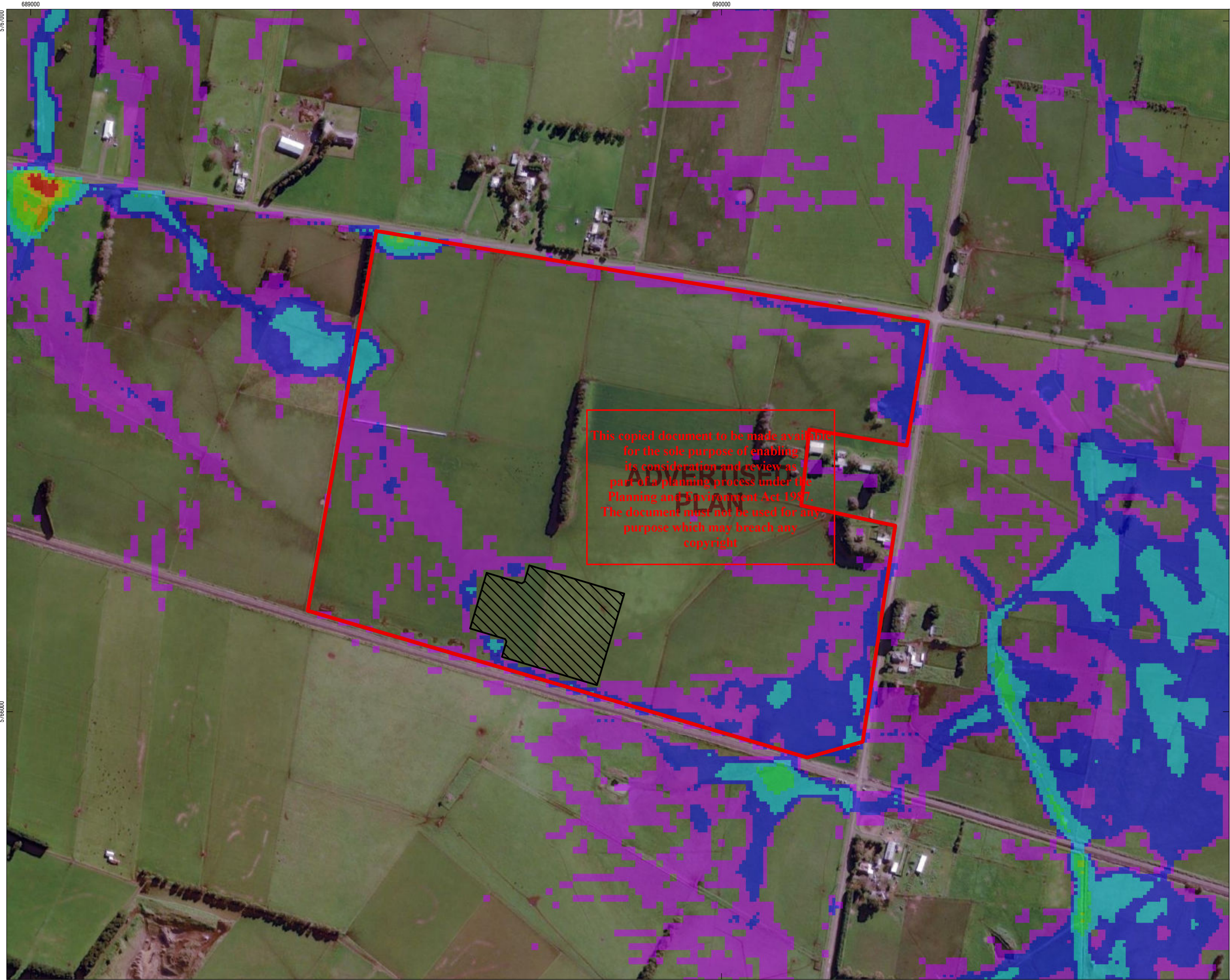
- Legend**
- Site Boundary
 - Proposed Development

- Level (m AHD)**
- Less than 153.5
 - 153.5 - 154.0
 - 154.0 - 154.5
 - 154.5 - 155.0
 - 155.0 - 155.5
 - 155.5 - 156.0
 - 156.0 - 156.5
 - 156.5 - 157.0
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 - 158.0 - 158.5
 - 158.5 - 159.0
 - 159.0 - 159.5
 - 159.5 - 160.0
 - 160.0 - 160.5
 - 160.5 - 161.0
 - 161.0 - 161.5
 - 161.5 - 162.0
 - Greater than 162



Coordinate System: GDA2020 MGA Zone 54
Scale: 1:5,000 at A3
Project Number: 620.041822
Date: 9/06/2025
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Camperdown BESS
Flood Impact Assessment

Developed Scenario (D03)
Peak Flood Depths - 50% AEP

APPENDIX B2-1

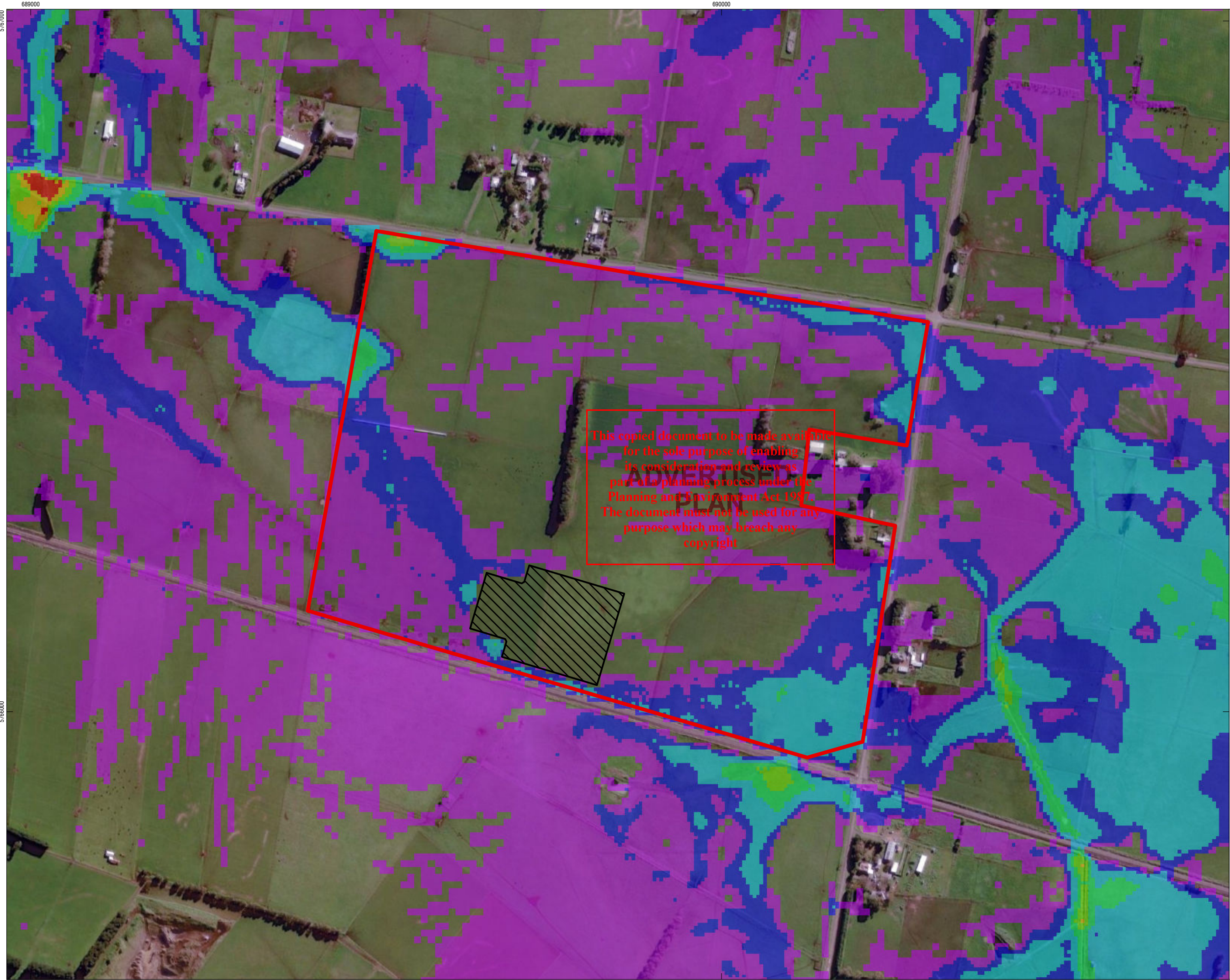
- Legend
- Site Boundary
 - Proposed Development

- Depth (m)
- 0 - 0.05
 - 0.05 - 0.1
 - 0.1 - 0.2
 - 0.2 - 0.3
 - 0.3 - 0.4
 - 0.4 - 0.5
 - > 0.5



Coordinate System:	GDA2020 MGA Zone 54
Scale:	1:5,000 at A3
Project Number:	620.041822
Date:	9/06/2025
Drawn by:	HM





Camperdown BESS
Flood Impact Assessment

Developed Scenario (D03)
Peak Flood Depths - 1% AEP

APPENDIX B2-2

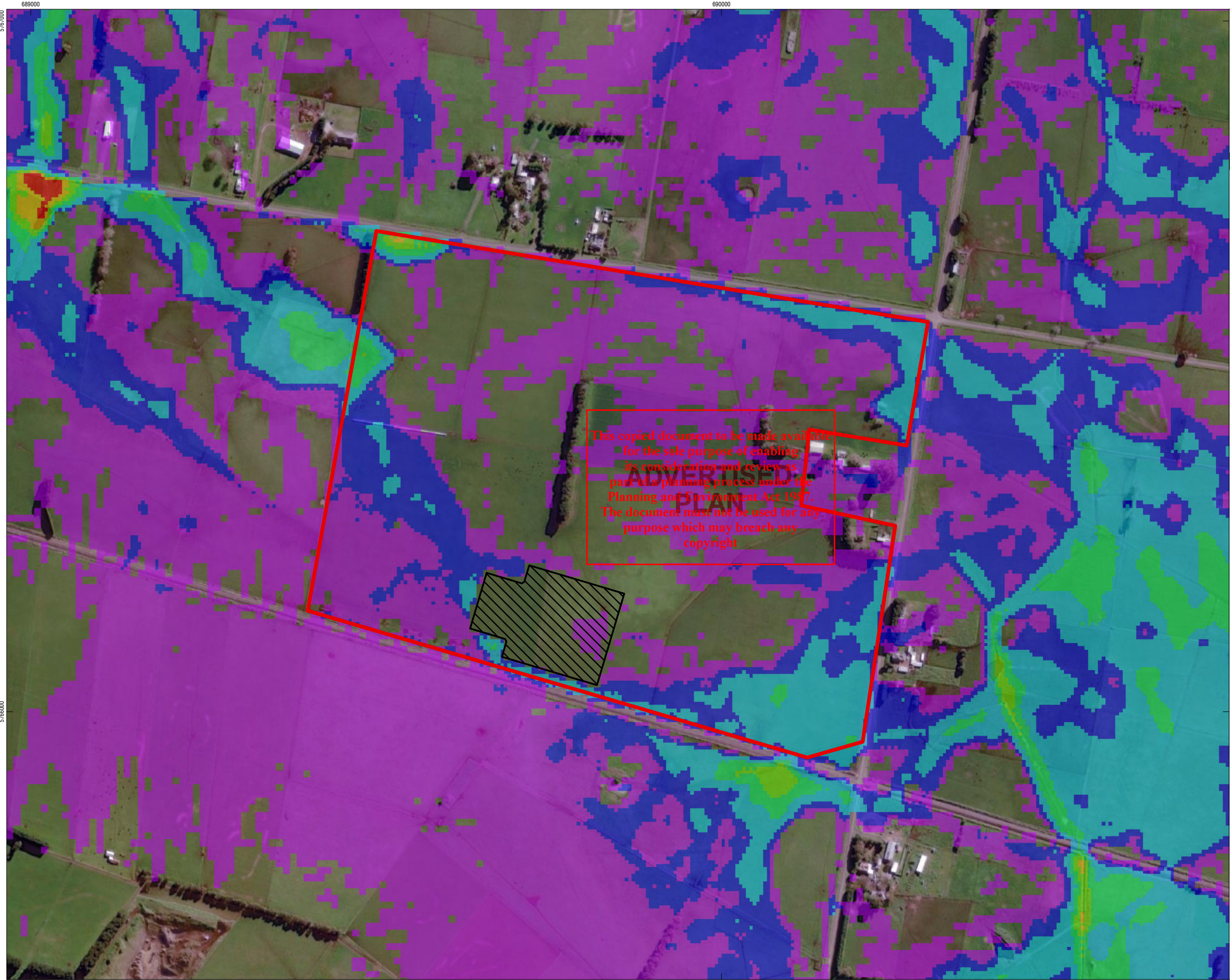
- Legend
- Site Boundary
 - Proposed Development

- Depth (m)
- 0 - 0.05
 - 0.05 - 0.1
 - 0.1 - 0.2
 - 0.2 - 0.3
 - 0.3 - 0.4
 - 0.4 - 0.5
 - > 0.5



Coordinate System:	GDA2020 MGA Zone 54
Scale:	1:5,000 at A3
Project Number:	620.041822
Date:	9/06/2025
Drawn by:	HM





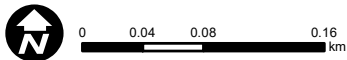
Camperdown BESS
Flood Impact Assessment

Developed Scenario (D03)
Peak Flood Depths - 0.2% AEP

APPENDIX B2-3

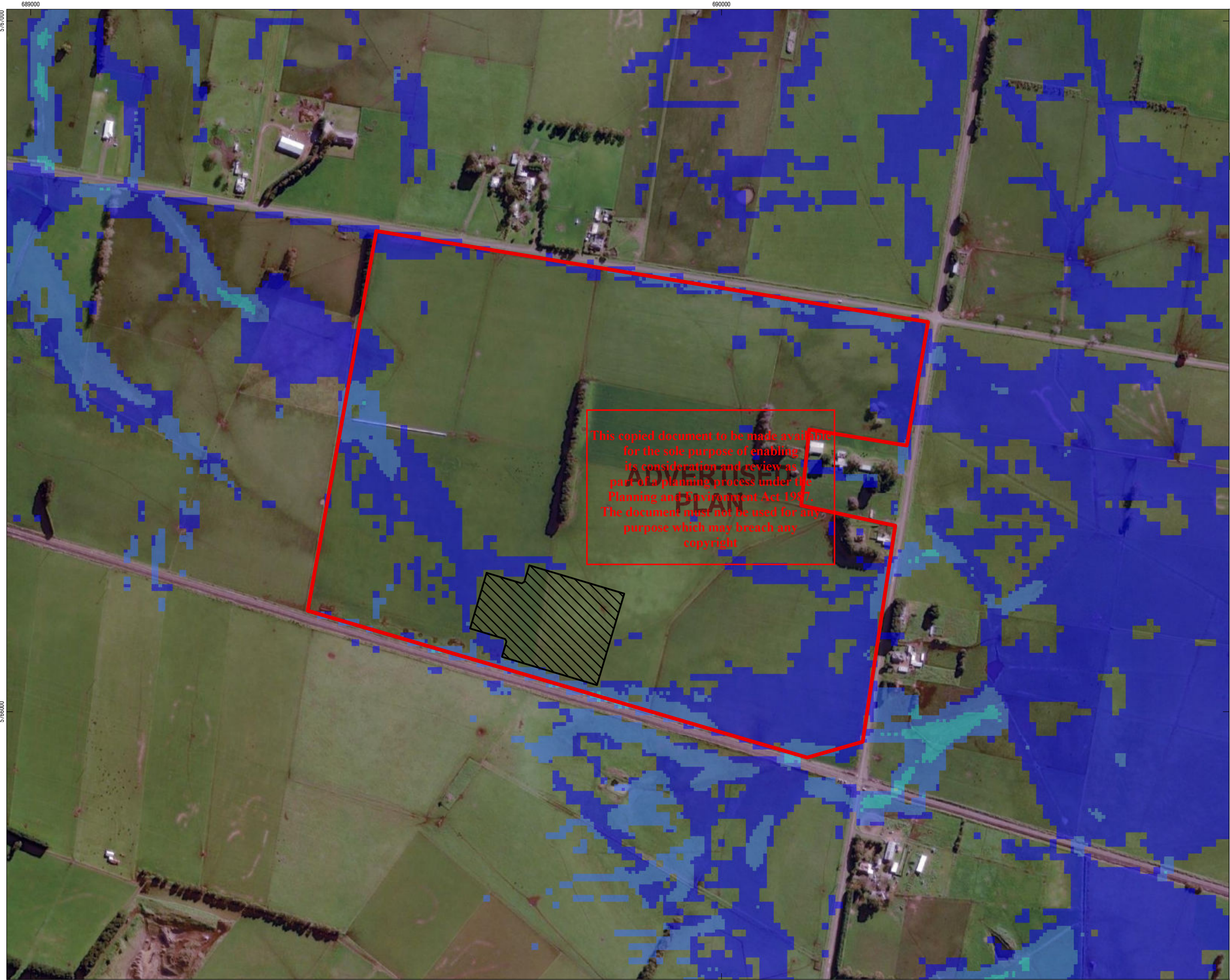
- Legend
- Site Boundary
 - Proposed Development

- Depth (m)
- 0 - 0.05
 - 0.05 - 0.1
 - 0.1 - 0.2
 - 0.2 - 0.3
 - 0.3 - 0.4
 - 0.4 - 0.5
 - > 0.5



Coordinate System:	GDA2020 MGA Zone 54
Scale:	1:5,000 at A3
Project Number:	620.041822
Date:	9/06/2025
Drawn by:	HM





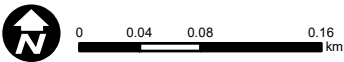
Camperdown BESS
Flood Impact Assessment

Developed Scenario (D03)
Peak Flood Velocities - 50% AEP

APPENDIX B3-1

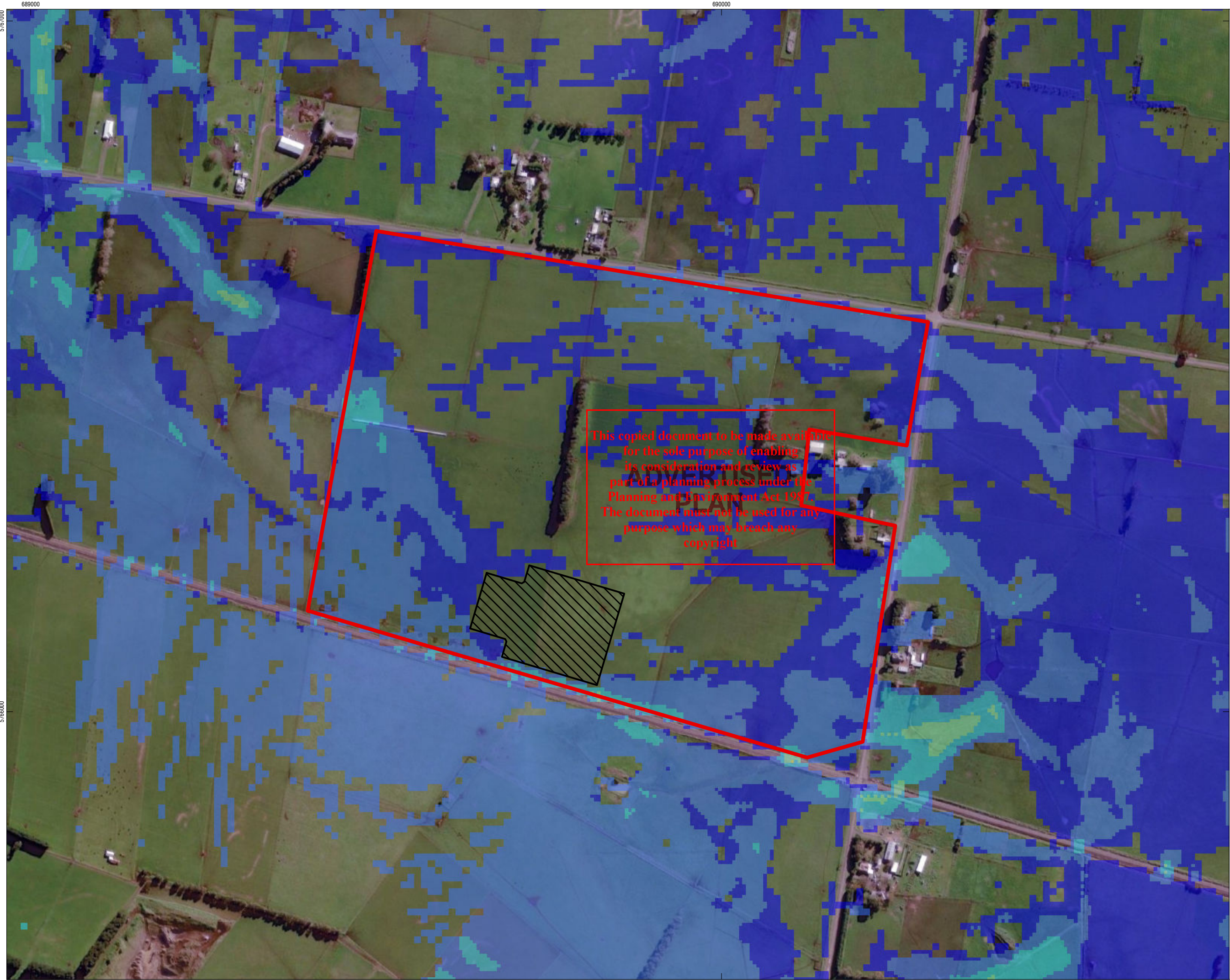
- Legend
- Site Boundary
 - Proposed Development

- Velocity (m/s)
- 0 - 0.25
 - 0.25 - 0.5
 - 0.5 - 0.75
 - 0.75 - 1.0
 - 1.00 - 1.25
 - 1.250 - 1.5
 - 1.50 - 2.0
 - > 2.0



Coordinate System:	GDA2020 MGA Zone 54
Scale:	1:5,000 at A3
Project Number:	620.041822
Date:	9/06/2025
Drawn by:	HM





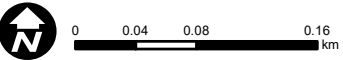
Camperdown BESS
Flood Impact Assessment

Developed Scenario (D03)
Peak Flood Velocities - 1% AEP

APPENDIX B3-2

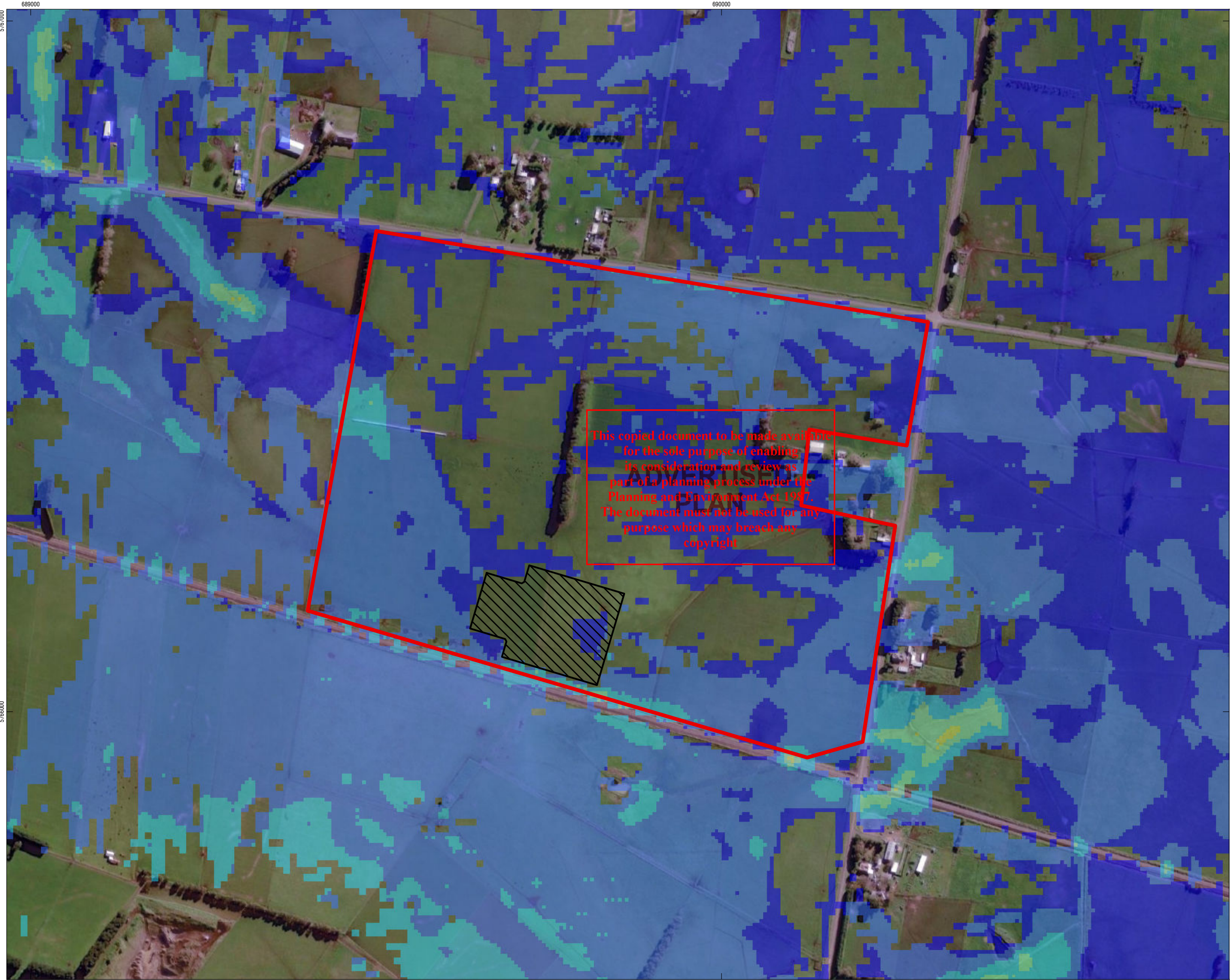
- Legend
- Site Boundary
 - Proposed Development

- Velocity (m/s)
- 0 - 0.25
 - 0.25 - 0.5
 - 0.5 - 0.75
 - 0.75 - 1.0
 - 1.00 - 1.25
 - 1.250 - 1.5
 - 1.50 - 2.0
 - > 2.0



Coordinate System:	GDA2020 MGA Zone 54
Scale:	1:5,000 at A3
Project Number:	620.041822
Date:	9/06/2025
Drawn by:	HM





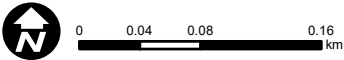
Camperdown BESS
Flood Impact Assessment

Developed Scenario (D03)
Peak Flood Velocities - 0.2% AEP

APPENDIX B3-3

- Legend
- Site Boundary
 - Proposed Development

- Velocity (m/s)
- 0 - 0.25
 - 0.25 - 0.5
 - 0.5 - 0.75
 - 0.75 - 1.0
 - 1.00 - 1.25
 - 1.250 - 1.5
 - 1.50 - 2.0
 - > 2.0



Coordinate System:	GDA2020 MGA Zone 54
Scale:	1:5,000 at A3
Project Number:	620.041822
Date:	9/06/2025
Drawn by:	HM





Camperdown BESS
Flood Impact Assessment

Developed Scenario (D03)
Peak Flood Afflux - 50% AEP

APPENDIX B4-1

- Legend
- Site Boundary
 - Proposed Development

- Afflux (mm)
- Less than -100
 - 100 to -50
 - 50 to -35
 - 35 to -25
 - 25 to -10
 - 10 to 10
 - 10 to 25
 - 25 to 35
 - 35 to 50
 - 50 to 100
 - More than 100
 - Was wet now dry
 - Was dry now wet

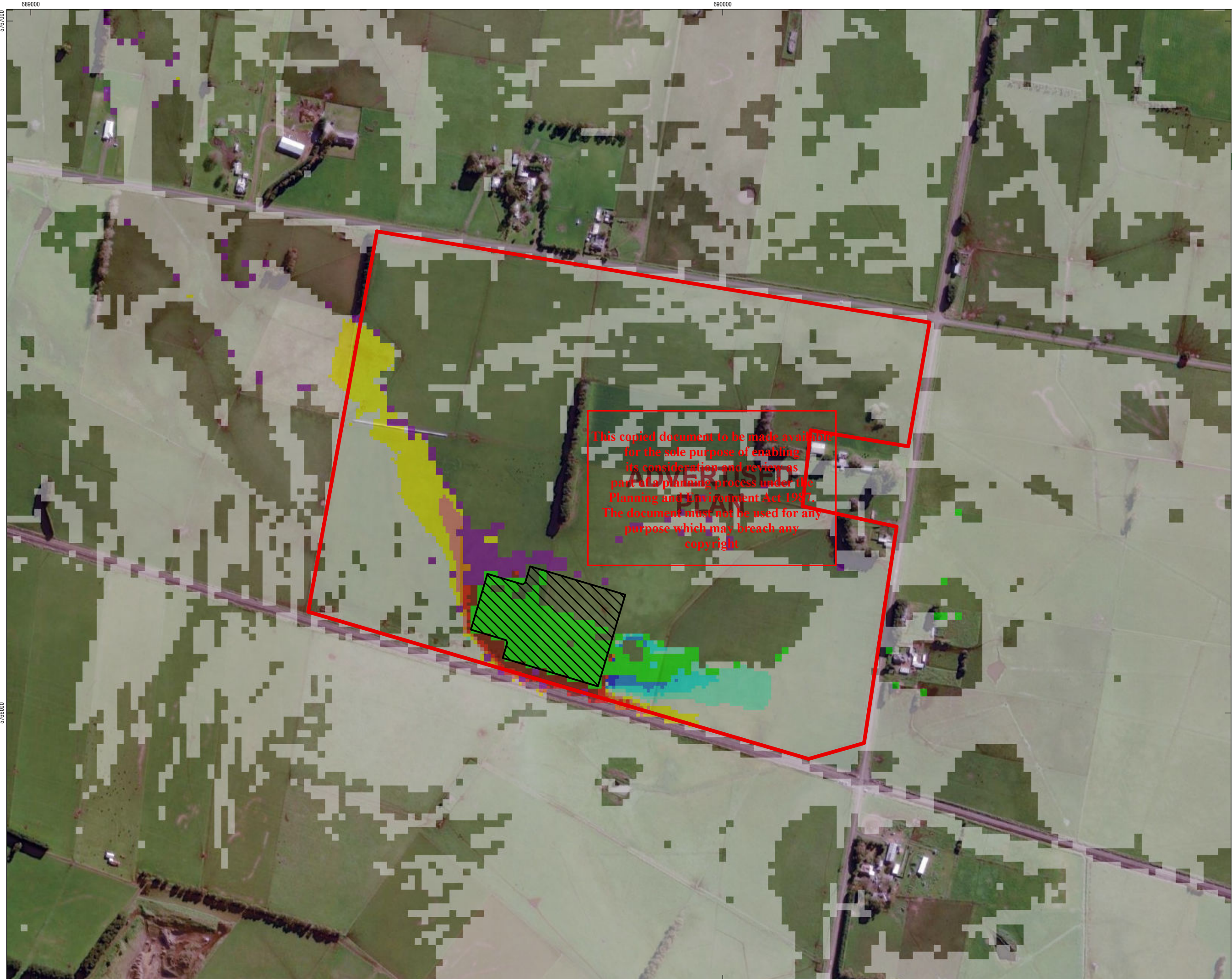


Coordinate System: GDA2020 MGA Zone 54
Scale: 1:5,000 at A3
Project Number: 620.041822
Date: 9/06/2025
Drawn by: HM



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5767000
5765000



**Camperdown BESS
Flood Impact Assessment**

**Developed Scenario (D03)
Peak Flood Afflux - 1% AEP**

APPENDIX B4-2

- Legend
- Site Boundary
 - Proposed Development

- Afflux (mm)
- Less than -100
 - 100 to -50
 - 50 to -35
 - 35 to -25
 - 25 to -10
 - 10 to 10
 - 10 to 25
 - 25 to 35
 - 35 to 50
 - 50 to 100
 - More than 100
 - Was wet now dry
 - Was dry now wet



Coordinate System: GDA2020 MGA Zone 54
Scale: 1:5,000 at A3
Project Number: 620.041822
Date: 9/06/2025
Drawn by: HM



5767000
5765000



Camperdown BESS
Flood Impact Assessment

Developed Scenario (D03)
Peak Flood Afflux - 0.2% AEP

APPENDIX B4-3

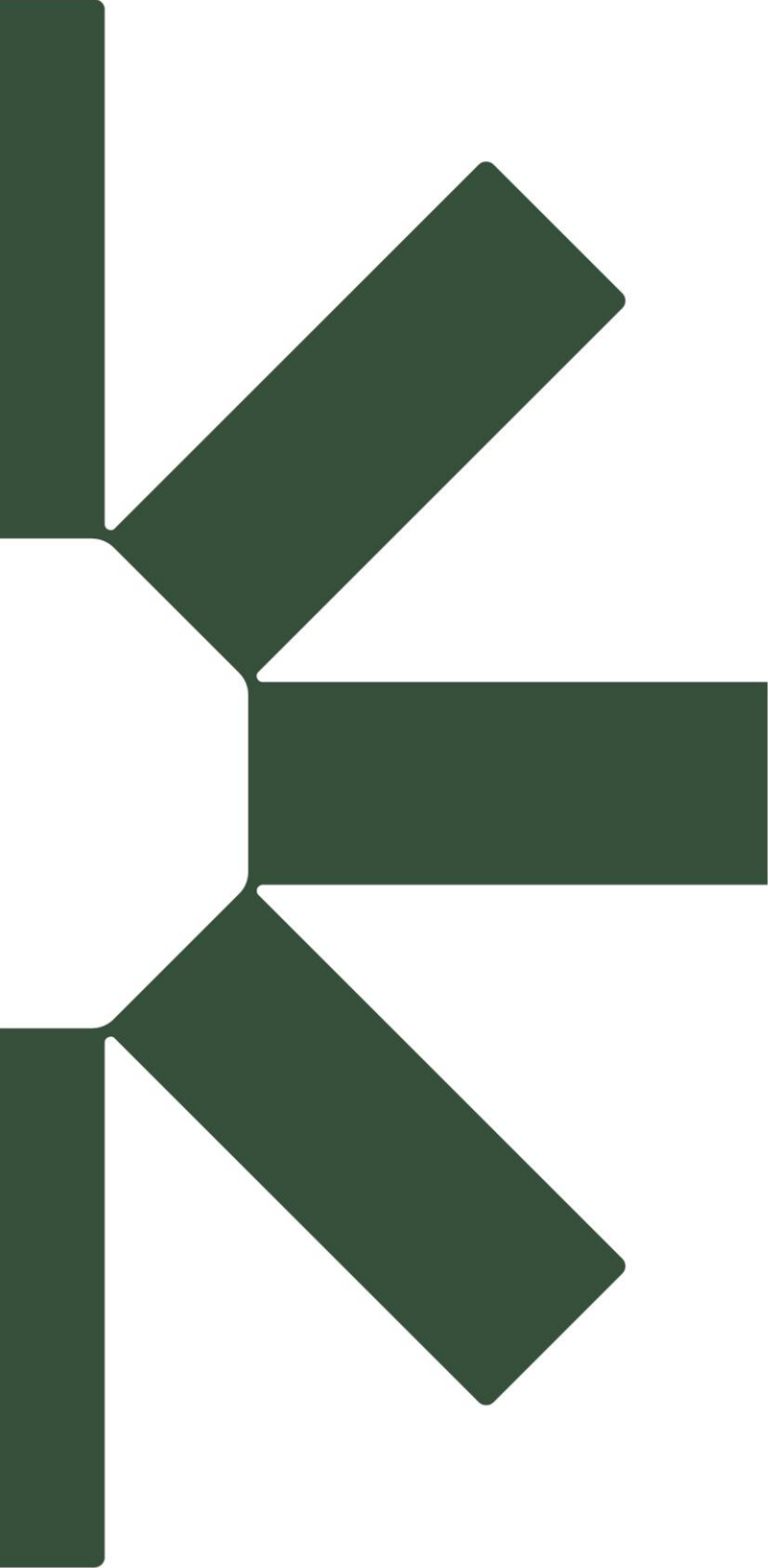
- Legend
- Site Boundary
 - Proposed Development

- Afflux (mm)
- Less than -100
 - 100 to -50
 - 50 to -35
 - 35 to -25
 - 25 to -10
 - 10 to 10
 - 10 to 25
 - 25 to 35
 - 35 to 50
 - 50 to 100
 - More than 100
 - Was wet now dry
 - Was dry now wet



Coordinate System:	GDA2020 MGA Zone 54
Scale:	1:5,000 at A3
Project Number:	620.041822
Date:	9/06/2025
Drawn by:	HM





ADVERTISED PLAN

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