

# 1.8 COMMUNITY FACILITY DETAILED PLAN



Location Map

## LEGEND

- ① Clubhouse, refer to Architectural Package
- ② Main entry
- ③ Bus drop off, port cochere
- ④ Central courtyard
- ⑤ Pool with infinity edge
- ⑥ Covered BBQ area
- ⑦ Pool deck/sunlounger area
- ⑧ Lawn/yoga/flexible space
- ⑨ Games lawn
- ⑩ Pedestrian path
- ⑪ Planting
- ⑫ Turf

Scale: 1:500 @ A3  
0 1 2.5 5 10 20

# 1.9 COMMUNITY GARDEN DETAILED PLAN

## PRECEDENT IMAGERY



Location Map

## LEGEND

- ① Entry Arbour
- ② Raised Planters
- ③ Tool Shed
- ④ Seating
- ⑤ Feature Trees
- ⑥ Carparking
- ⑦ Pavilion
- ⑧ Pedestrian path
- ⑨ Swale crossing

# 1.10 FENCE STRATEGY



## LEGEND

- · — · — Property boundary
- \* Vehicle and pedestrian entry
- — — — — Perimeter fencing  
1.8m high - permeable fencing
- — — — — Lot fencing - typical  
1.2-1.5m high permeable fence
- — — — — Lot fencing - privacy  
1.8m high - Solid fence

# 1.11 MATERIALS PALETTE

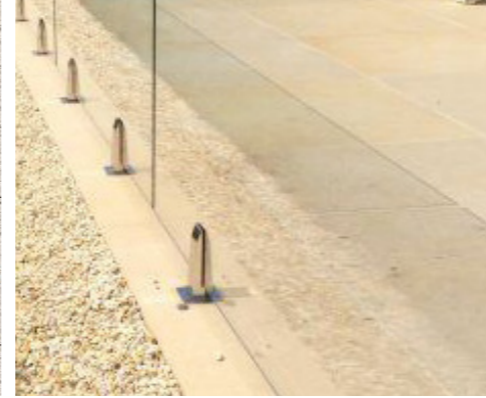
## Surfaces



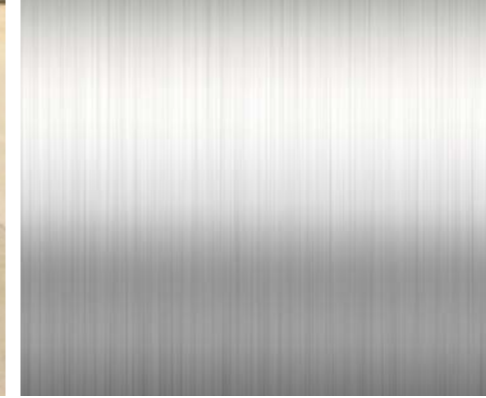
*Exposed aggregate*



*Textured concrete paver*



*Glass (pool fence)*



*Stainless steel fixings*



*Textured concrete*



*Entry threshold cobbles*



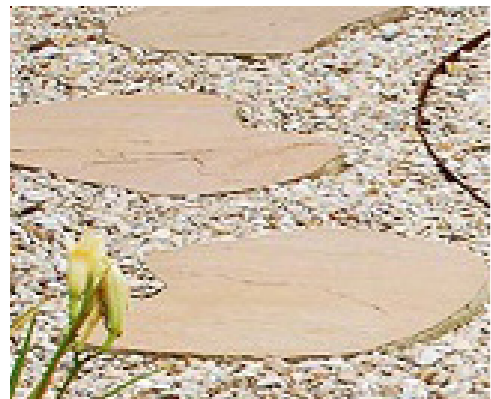
*Deco path*



*Powdercoated steel (baton fence)*



*Hardwood timber*



*Stone paver*



*Limestone cladding*



*Boulders*

# 1.12 TREE PALETTE

● Native ● Indigenous ● Exotic



*Melaleuca leucadendra*  
Weeping Paperbark



*Melaleuca fluviatilis*  
Weeping Tea-tree



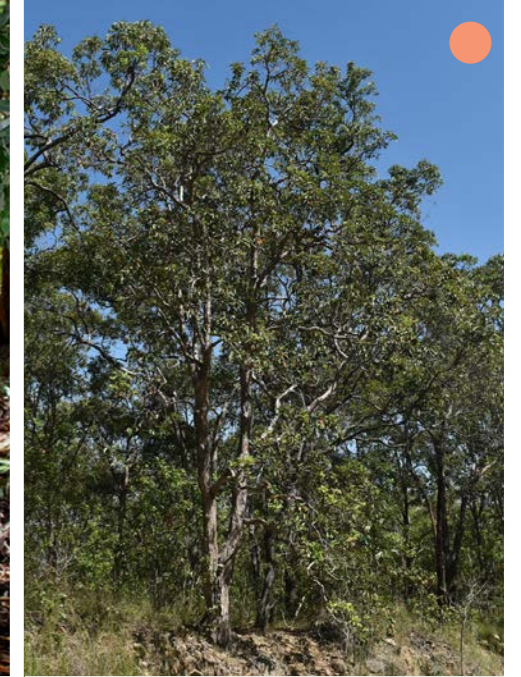
*Nauclea orientalis*  
Canary Cheesewood



*Eucalyptus tereticornis*  
Forest Red Gum



*Lophostemon grandiflorus*  
Northern Swamp Box



*Lophostemon suaveolens*  
Swamp Mahogany



*Corymbia tessellaris*  
Moreton Bay Ash



*Milletia pinnata*  
Pongamia/Indian Beech



*Pandanus spiralis*  
Screw Pine



*Cupaniopsis anacardioides*  
Tuckeroo

# 1.13 PLANTING PALETTE

## Shrubs

## Groundcovers

● Native 
 ● Indigenous 
 ● Exotic



*Syzygium australe*  
Lilly Pilly



*Melaleuca 'snowstorm'*  
Snowstorm



*Liriope 'Evergreen Giant'*  
Liriope



*Lomandra hystrix*  
Katie Belles



*Austromyrtus dulcis*  
Midgen Berry



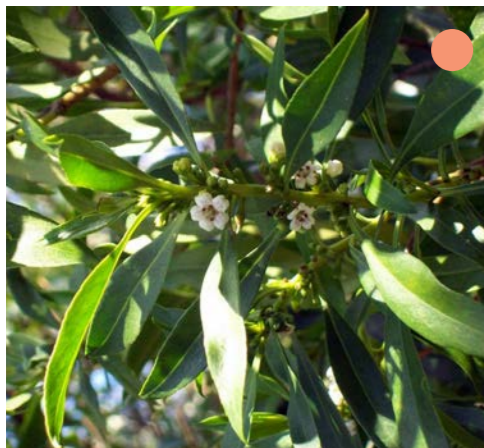
*Leptospermum flavescens 'Cardwell Pink'*  
Wild May



*Gardenia psidioides*  
Glennie River



*Jasminum didymum*  
Native Jasmine



*Myoporum acuminatum*  
Wild May

# 1.14 BASIN PLANTING PALETTE

## Trees

## Shrubs

## Groundcovers

● Native 
 ● Indigenous 
 ● Exotic



*Corymbia tessellaris*  
Moreton Bay Ash



*Callistemon viminalis*  
Bottlebrush



*Acacia holosericea*  
Silver Wattle



*Melaleuca viridiflora*  
Broad-leaved Paperbark



*Eragrostis elongata* 'Elvera'  
Elvera



*Ficinia nodosa*  
Paroo Lily



*Melaleuca dealbata*  
Grey Paperbark



*Cupaniopsis anacardioides*  
Tuckeroo



*Melaleuca leucadendra*  
Weeping Paperbark



*Gahnia aspera*  
Saw-Sedge



*Lomandra hystrix*  
Katie Belles



# APPENDIX I

Flood Impact Assessment prepared by Engeny

brazier motti





# PREMISE AUSTRALIA PTY LTD

## Ingenia Lifestyle Community

Hydraulic Impact Assessment





BNE04866\_0005-REP-001-0

23 JANUARY 2026

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Rev	Date	Description	Author	Reviewer	Project Mgr.	Approver
0	23/01/2026	Client Issue	Simon Tang	Daniel Niven	Simon Tang	Daniel Niven
Signatures:						

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# 1. INTRODUCTION

Engeny Australia Pty Ltd (Engeny) has been commissioned by Premise Australia Pty Ltd (Premise) to undertake a Hydraulic Impact Assessment (HIA) to support the proposed development of the Ingénia Lifestyle Community at North Shore, Townsville (herein referred to as the Site). The Site is located within the Townsville City Council (TCC) Local Government Area (LGA) and is situated within the Bohle River floodplain. Based on cadastral boundary mapping, the Site is formally described as Lot 2506 on SP333142, refer Figure 1.1. This report outlines the current flooding conditions at the Site and assesses the potential impacts associated with the proposed development.

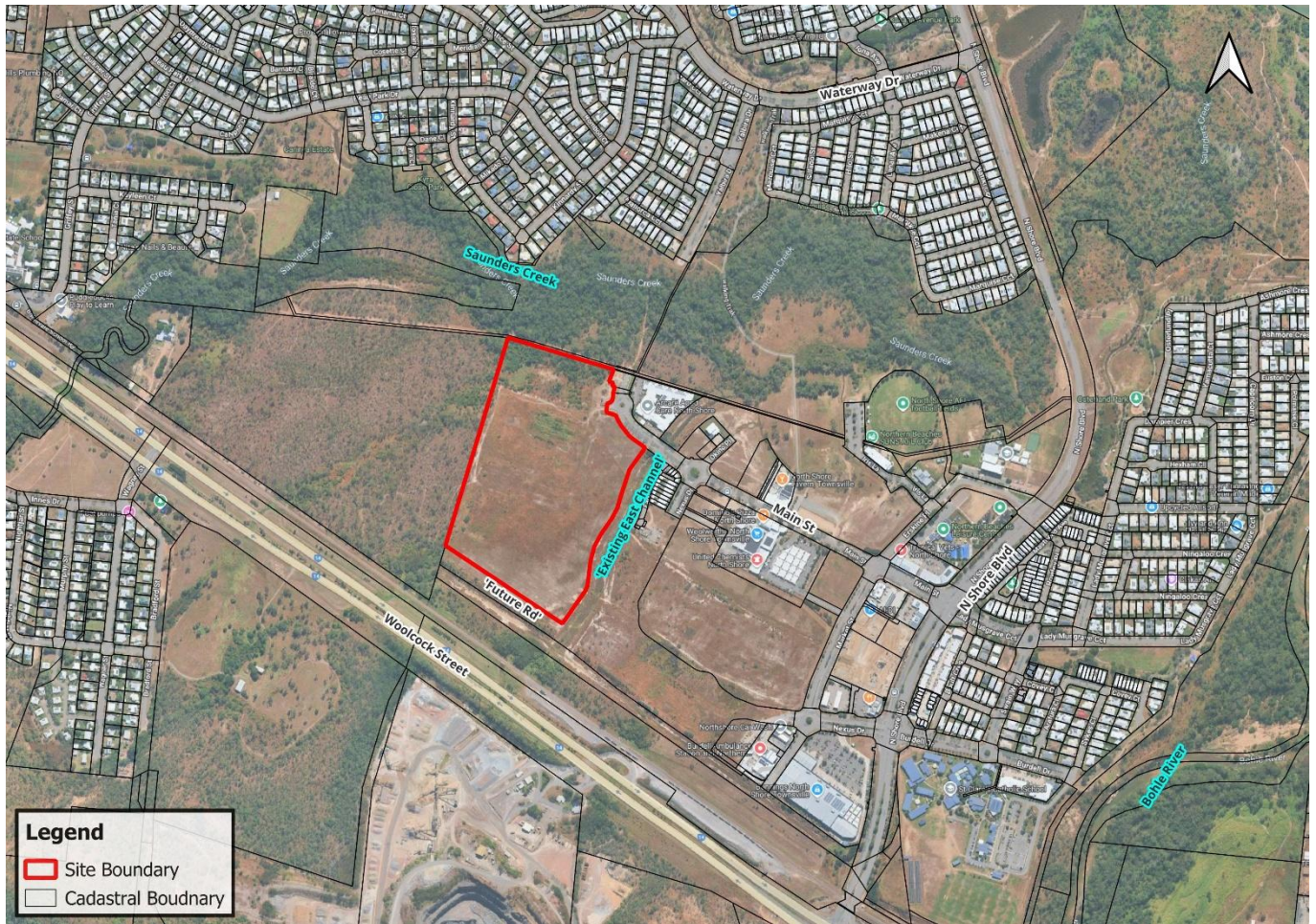


Figure 1.1: Site Locality

## 1.1 Project Scope

This HIA aims to quantify changes in flooding conditions resulting from the proposed development at Lot 2506 on SP333142 and to identify any mitigation measures required to ensure compliance with Townsville City Council (TCC) flood planning requirements. The scope of works for this assessment includes the following:

- Review the 2023 Bohle River Flood Study hydrologic and hydraulic models (Water Technology, 2023).
- Simulate the existing flooding conditions for the 50%, 10% and 1% AEP design storm events.
- Update the hydraulic model to represent the proposed developed conditions and simulate for the above design events.
- Assess potential Impacts created by the proposed development.
- Prepare a HIA report outlining methodology, results, and recommendations

## 1.2 Data Sources and Inputs

In the preparation of this report, information was gathered from the following sources:

- Hydrologic and hydraulic models from the 2023 Bohle River Flood Study (Water Technology, 2023), obtained from TCC.
- Proposed site layout, supplied by the client.
- Aerial Imagery obtained from Nearmap (accessed October 2026).

## 1.3 Applicable Guidelines and References

The guidelines, standards and codes considered during the assessment were as follows:

- Townsville City Plan, including the Floodplain Management Overlay Code.
- Australian Rainfall and Runoff 2019 (ARR).

Reference documents relevant to this assessment are:

- Bohle River Flood Study Report (Water Technology, 2023).

## 2. HYDRAULIC MODELLING METHODOLOGY

The 2023 Bohle River Flood Study TUFLOW hydraulic model was reviewed and adapted for use in this assessment. Hydraulic modelling was undertaken using this existing model as the baseline, with simulations prepared for both existing and developed case scenarios. Updates were applied to reflect the proposed Site conditions, and all scenarios were assessed for the 50% AEP, 10% AEP, and 1% AEP design storm events.

### 2.1 Existing Case Scenario Model

The existing case scenario represents current catchment and floodplain conditions based on the unmodified 2023 Bohle River Flood Study TUFLOW model. No changes were made to the hydrologic inflows, topography, land use, or hydraulic structures for this scenario.

Model simulations were undertaken for the 50%, 10%, and 1% AEP design storm events using the durations and temporal patterns adopted in the Bohle River Flood Study. A summary of the modelled durations and associated temporal patterns are provided in Table 2.1.

**TABLE 2.1: CRITICAL STORMS MODELLED PER DESIGN EVENT (BOHLE RIVER FLOOD STUDY, 2023)**

AEP	Durations	Temporal Pattern Bin
50%	30min TP6, 45min TP7, 60min TP6, 90min TP6, 120min TP7, 180min TP2, 360min TP8, 540min TP6, 1440min TP10	Intermediate (Point)
10%	30min TP6, 45min TP7, 60min TP6, 90min TP6, 120min TP7, 180min TP2, 360min TP8, 540min TP6, 1440min TP10	Intermediate (Point)
1%	30min TP6, 45min TP7, 90min TP1, 120min TP4, 180min TP7, 270min TP10, 360min TP4, 1080min TP1	Rare (Point)

Following simulation in TUFLOW, flood results were post processed to determine the critical duration for each design event by identifying the maximum flood level observed at each location across all simulated storm durations. These critical durations were then adopted for the developed case scenario to reduce simulation time while maintaining a conservative assessment of flood impacts.

The adopted critical durations at the Site are summarised in Table 2.2, with corresponding critical duration maps for all tested events shown in Figure 2.1 to Figure 2.3.

**TABLE 2.2: CRITICAL STORMS ADOPTED AT THE SITE**

AEP	Durations	Temporal Pattern Bin
50%	30min TP6, 60min TP6, 90min TP6, 180min TP2, 540min TP6	Intermediate (Point)
10%	30min TP6, 45min TP7, 60min TP6, 90min TP6, 120min TP7, 360min TP8, 540min TP6	Intermediate (Point)
1%	90min TP1, 360min TP4	Rare (Point)

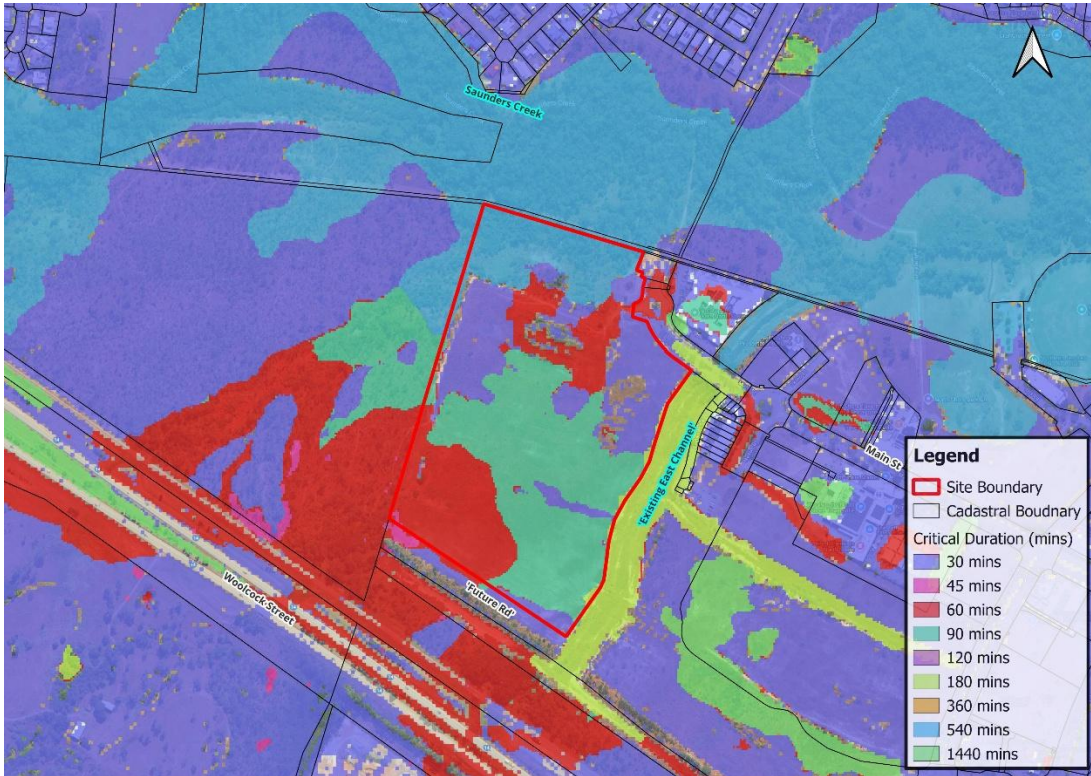


Figure 2.1: 50% AEP – Critical Duration at Site

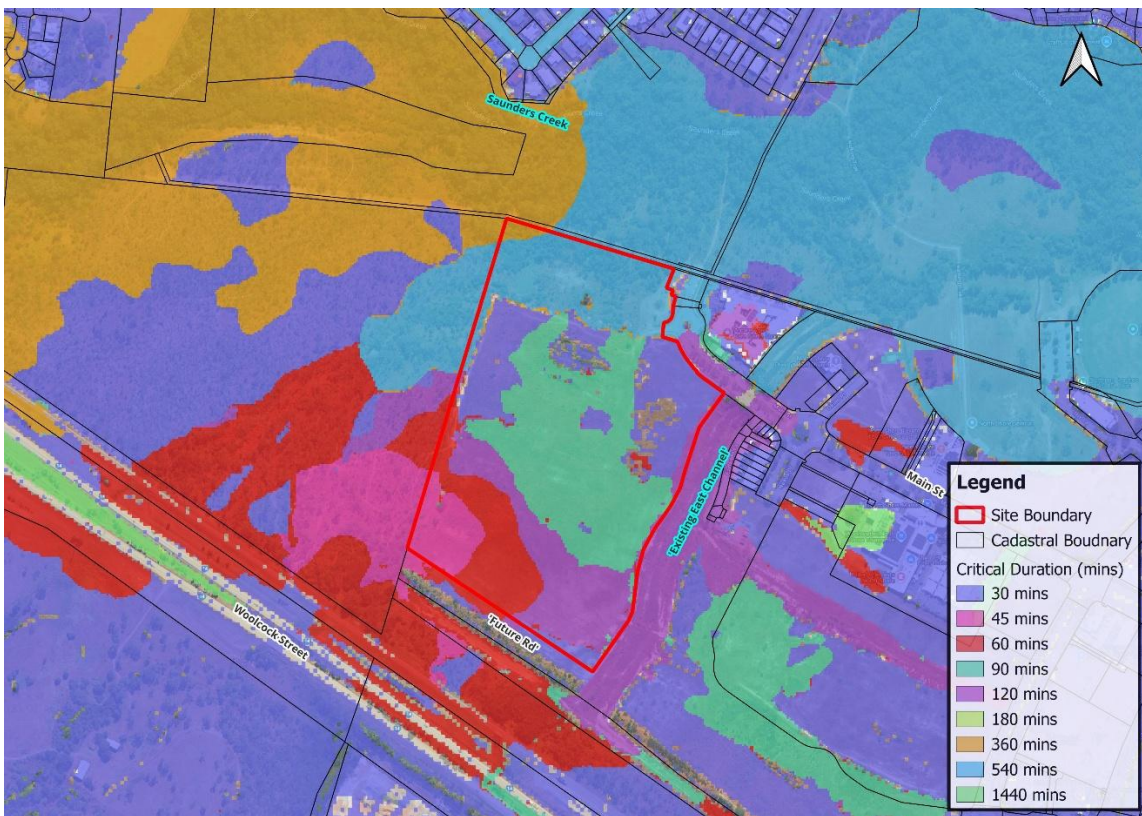


Figure 2.2: 10% AEP – Critical Duration at Site

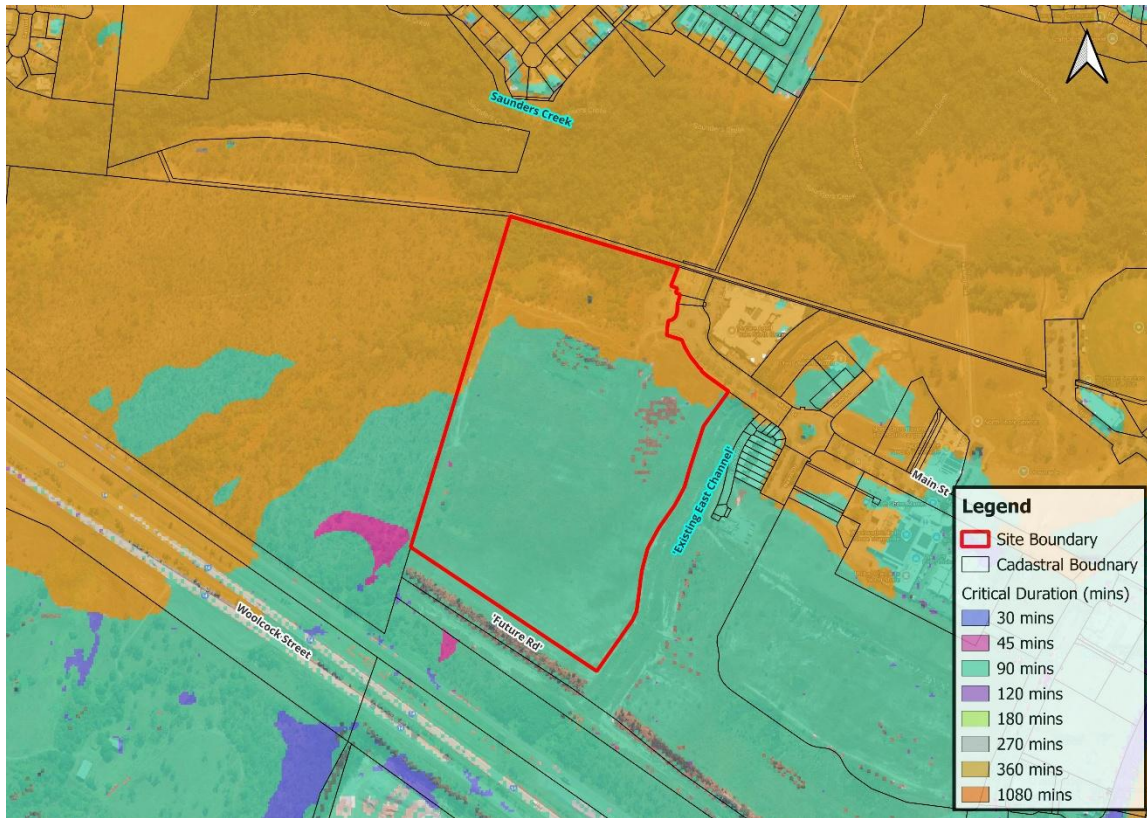


Figure 2.3: 1% AEP – Critical Duration at Site

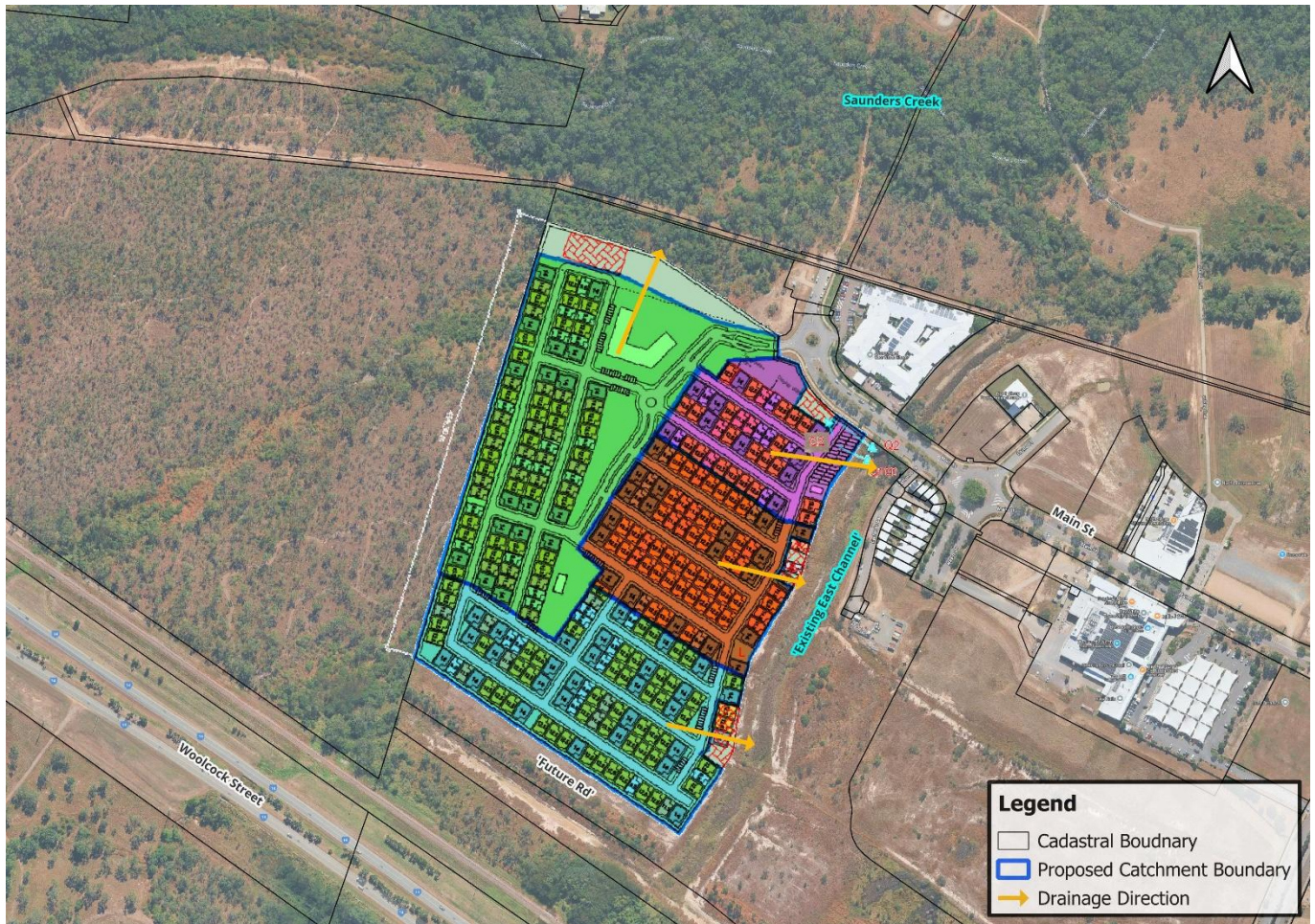
## 2.2 Developed Case Scenario Model

The developed case scenario was created by modifying the existing model to reflect the proposed development footprint and associated drainage features. The key updates implemented in the model are summarised below:

### 2.2.1 Site Filling

In the absence of a detailed design surface, the proposed fill was incorporated using TUFLOW's 2D z-shape (2d\_zsh) layers to modify the existing topography. The developable area was raised to ensure all finished surface levels are located above the 1% AEP flood level from the existing case scenario, with an additional 300 mm freeboard allowance applied to meet flood immunity requirements. The extent of the raised area was defined based on the proposed lot plan supplied by the client. It is noted that the filled extent implemented in the model is slightly different from the plan layout at north west corner of the development shown in Appendix A. This discrepancy is addressed in the conclusion section.

The fill surface was graded to generally follow the existing topographic slope from south to northeast but was slightly adjusted to align with the indicative sub-catchment boundaries provided by the client. Figure 2.4 shows the proposed catchment boundaries for the Site and Figure 2.7 presents the modelled topography, with Figure 2.8 identifying the areas of fill.



**Figure 2.4: Proposed Catchment Boundaries**

The entry road was modelled to tie into the existing road network at north of the development and to ramp upward into the filled development area, maintaining connectivity with the existing road.

## 2.2.2 Site Excavation

To facilitate the conveyance of external flows primarily from Saunders Creek to the north of Site and its tributary to the west of Site, an excavation area was proposed at the northwestern corner of the Site.

This excavated area provides a flow path that helps to offset the blockage effect of the proposed site filling, allowing flows to continue around the Site with minimal disruption. The excavation is intended to preserve existing flow behaviour in the area and reduce the potential for upstream flood level increase. In consideration of fish passage requirements, the base of the existing waterway was not modified, ensuring that the natural bed level remains unchanged. Figure 2.7 presents the modelled topography, with Figure 2.8 identifying the areas of fill and cut.

## 2.2.3 Surface Roughness (Manning's 'n' Values)

Land use within the development footprint was updated in accordance with the proposed lot layout supplied by the client. Surface roughness was applied using Manning's 'n' values consistent with the categories and values adopted in the 2023 Bohle River Flood Study. Adopted Manning's values for the Site were tabulated in Table 2.2 and shown in Figure 2.5.

It is noted that the proposed lot layout differs slightly from the land use layer used in the developed case model, particularly near the northwestern corner of the Site. This minor inconsistency is not expected to materially affect results and is further discussed in the report conclusion section.

**TABLE 2.3: MANNING'S 'N' VALUES**

Surface Type	Manning's 'n' values
Low Density Vegetation	0.055
High Density Vegetation	0.08
Roads/ Open Channels	0.03
Urban Residential	0.1



**Figure 2.5: Developed Case Surface Roughness**

## 2.2.4 Proposed Drains

To manage external overland flow entering the Site under existing conditions, and to avoid adverse impacts outside the Site resulting from the proposed fill, two open channel drains and a shallow depression zone were incorporated into the developed case model. Locations of these channels are shown in Appendix A and Figure 2.8. These features are intended to collect, convey, and redirect upstream flows entering the Site boundary while maintaining floodplain connectivity and minimising off site impacts. The proposed drainage elements are summarised below:

### 2.2.4.1 Southwest Depression Zone

A shallow depression was included at the southwest corner of the Site to intercept overland flow entering from adjacent upstream catchments. This low point functions as a collection zone to slow and split incoming flows, directing them toward the southern and western drains.

- Approximate invert level: 7.8 m AHD, sloping down to 7.7 m AHD toward the southern channel.
- Not intended for water storage, proposed purely for surface flow redistribution.

### 2.2.4.2 Southern Drain

This drain is located along the southern boundary of the Site north of the future road, this open channel conveys flow from the depression zone and southern portion of the Site toward the existing eastern drain.

- Conceptual base width: 3.0 m
- Invert levels: 7.7 m AHD (upstream), 6.9 m AHD (downstream)
- Approximate length: 270 m
- Estimated peak flow: Approximately 1.0 m<sup>3</sup>/s in the 1% AEP design event

### 2.2.4.3 Western Drain

This drain runs along the western boundary of the Site, collecting flow from the southwest depression zone as well as overland flows from upstream catchments that naturally drain toward the Site in the existing condition. The channel conveys this flow northward and discharges into Saunders Creek.

- Conceptual base width: 4.0 m
- Invert levels: 7.8 m AHD (upstream), 6.1 m AHD (downstream)
- Approximate length: 360 m
- Estimated peak flow: 2.5 m<sup>3</sup>/s in the 1% AEP design event

To support the developed case model setup, Figure 2.6 and Figure 2.7 show the topography conditions applied in the model. Figure 2.8 illustrates the extent of proposed site filling, excavation and drainage elements.

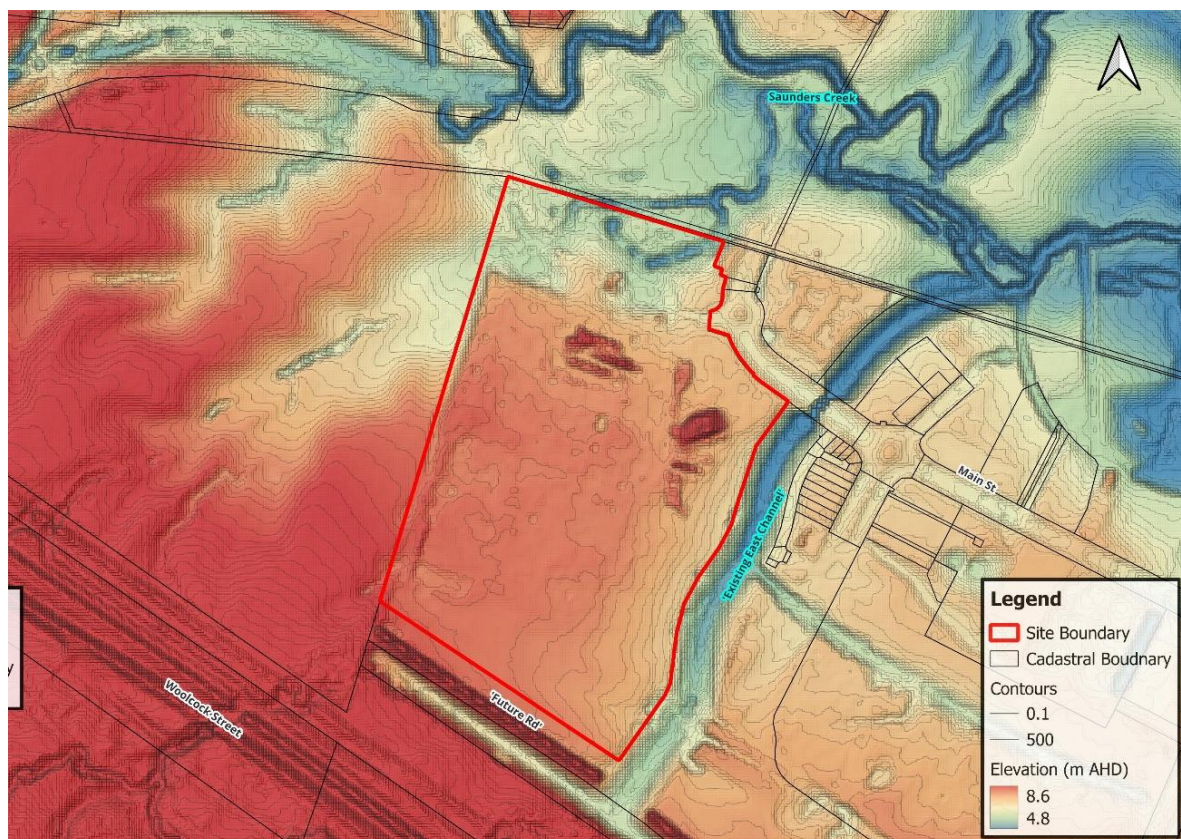


Figure 2.6: Existing Case Topography Condition

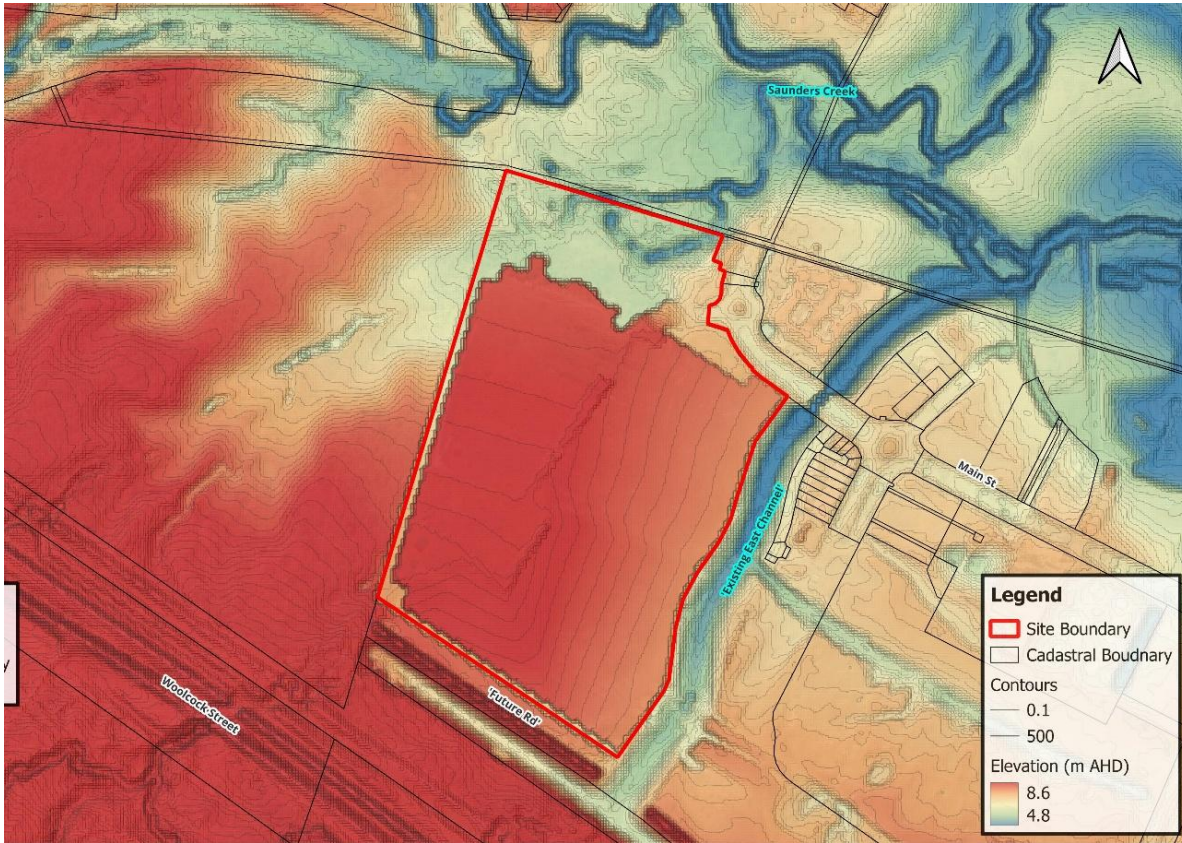


Figure 2.7: Developed Case Topography Condition

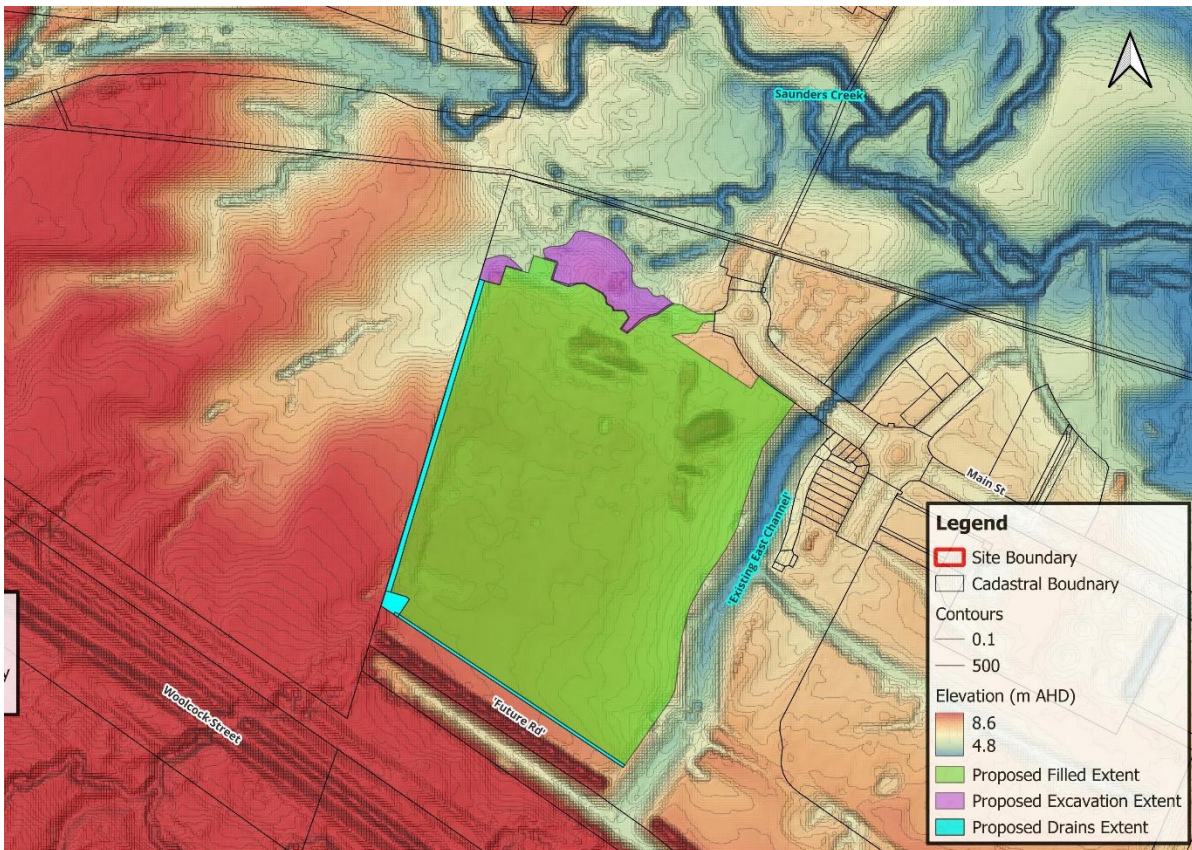


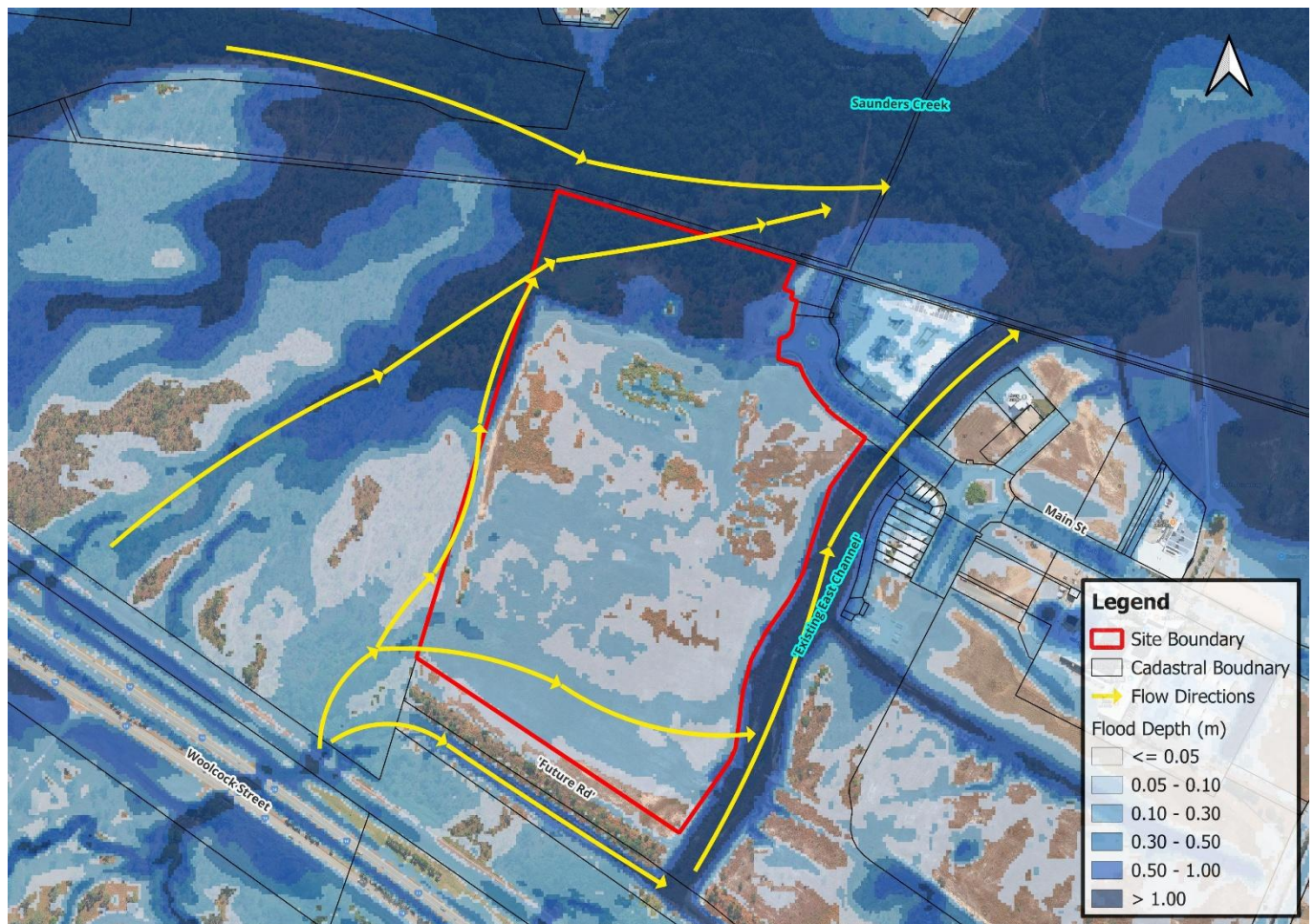
Figure 2.8: Extent of Proposed Filling, Excavation, and Drainage Elements

## 3. HYDRAULIC MODEL RESULTS

Hydraulic modelling results for the existing and developed scenarios are summarised in this section. Both scenarios were simulated using the same set of critical durations and temporal patterns identified in Section 2.1, to allow for a consistent comparison of flood behaviour. Flood mapping outputs include peak flood levels, depths and velocities for the 50%, 10%, and 1% AEP events. Results have been processed using the Max-of-Max method to capture the peak values across all durations.

### 3.1 Existing Case Scenario Results

Flood mappings for the existing case scenario are provided in Appendix B, including flood depth, velocity, and hazard mapping for the relevant AEP events. Figure 3.1 presents the flood depth at the Site for the 1% AEP event under existing conditions.

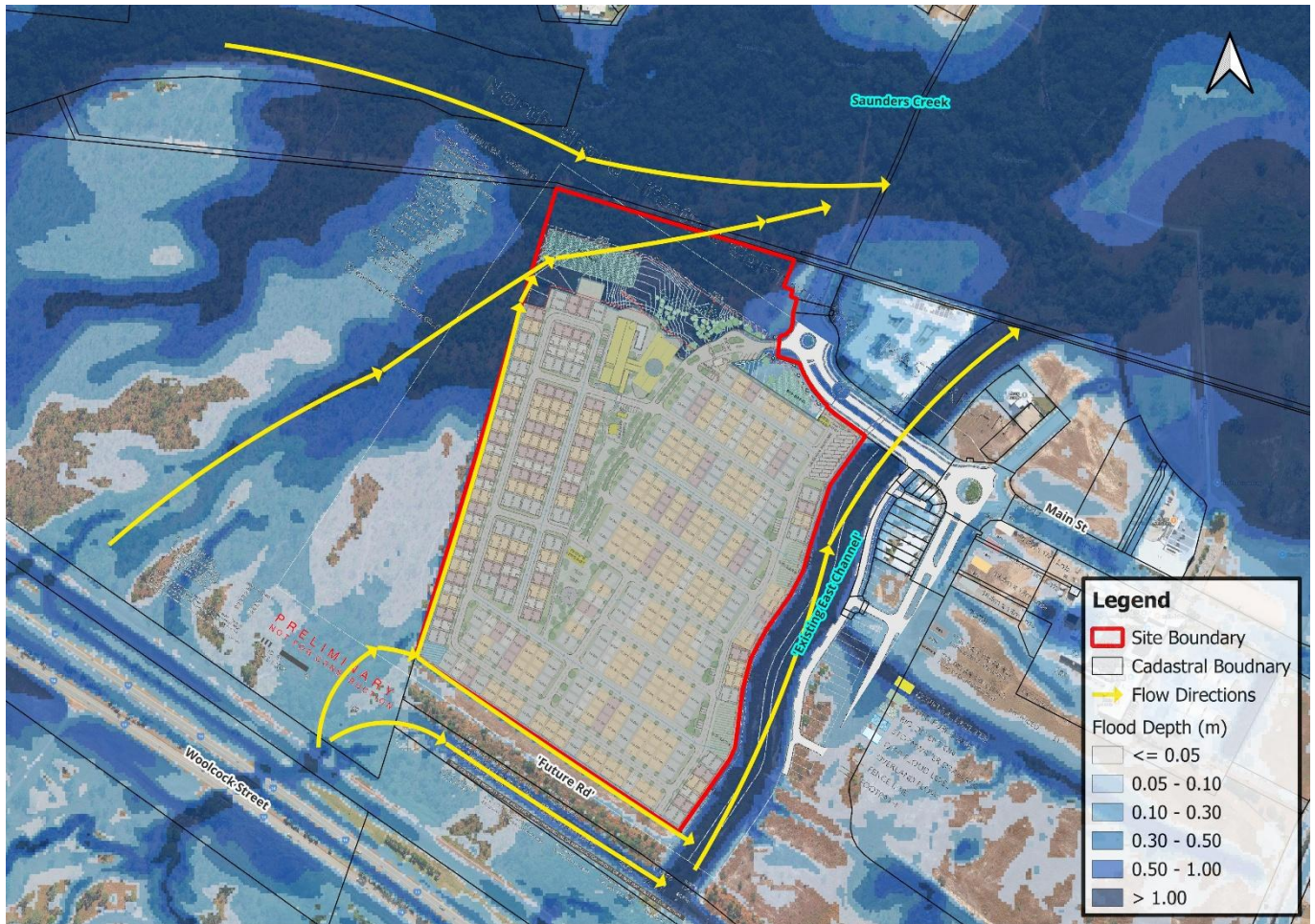


**Figure 3.1: Existing Case 1% AEP Flood Depth**

Based on this figure, the Site is subject to both regional flooding from Saunders Creek and local overland flow mainly from an upstream catchment located to the southwest of the Site. One flow path travel east across the Site and along the southern boundary, discharging into the existing drain along the eastern edge of the Site, the other flow path travels north along the western boundary, eventually discharging to Saunders Creek.

### 3.2 Developed Case Scenario Results

Flood mapping outputs for the developed case scenario are provided in Appendix C, including flood depth, velocity, and hazard mapping for the relevant AEP events. Figure 3.2 represents the flood depth at the Site for the 1% AEP event for developed conditions.



**Figure 3.2: Developed Case 1% AEP Flood Depth**

Based on this figure, the developable areas within the Site are flood free under the 1% AEP event, and the proposed drains and depression zone are functioning as intended to convey upstream flows through the Site.

### 3.3 Flood Impact Assessment

Flood impact mapping has been prepared to identify any changes in flood levels resulting from the proposed development. Flood level afflux maps for the 50%, 10%, and 1% AEP events are included in Appendix D.

#### 3.3.1 1% AEP Flood Level Afflux

The 1% AEP flood impact mapping (refer to Figure 3.3) shows that:

- Minor flood level increases occur immediately north of the Site, with a maximum rise of less than 20 mm, and are fully contained within the Site boundary. This increase is considered acceptable, as it is localised and occurs due to the excavation at the northern extent, which allows additional flows from Saunders Creek to pass through this area more effectively.
- Flood level reductions are observed along both the western and southern drains, confirming that the proposed drainage infrastructure is effectively conveying upstream flow around the Site.
- A notable flood level reduction of approximately 15 mm is observed east of the Site, within the adjacent shopping centre area. This is considered a positive outcome, primarily resulting from the proposed filling and the two open drains, which redirect upstream overland flow away from the eastern area.
- Reduction of approximately 10 – 20mm is seen at the northwest corner of the Site, primarily due to the excavation zone, which improves flow conveyance around the Site and helps offset the impact of site filling.

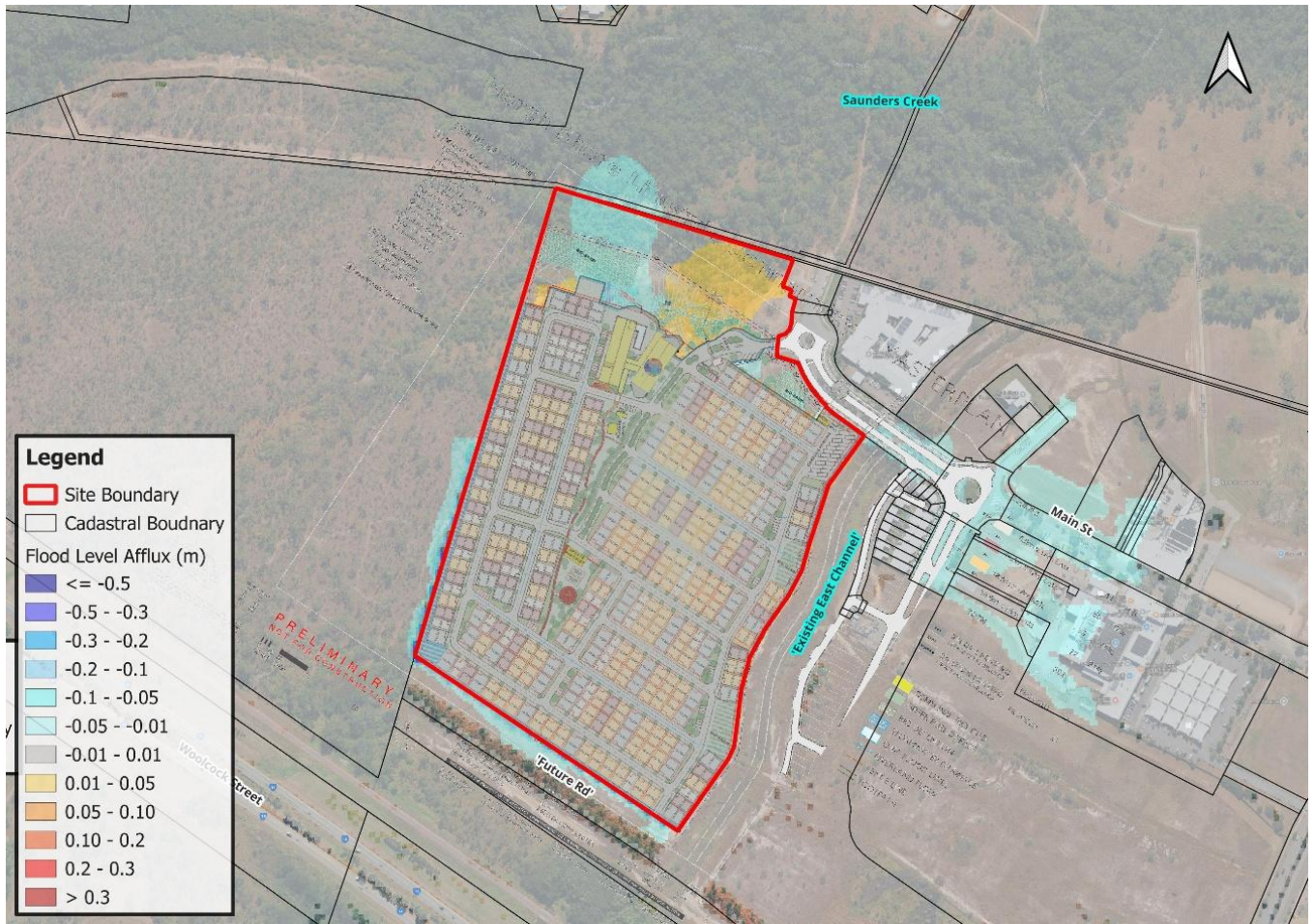


Figure 3.3: 1% AEP Flood Level Afflux

### 3.3.2 10% AEP Flood Level Afflux

The 10% AEP flood impact mapping (refer to Figure 3.4) indicates similar trends to the 1% AEP event, with minor flood level increases constrained within the Site boundary, particularly to the north of the Site. These increases remain under 20 mm and are considered acceptable. A broader extent of flood level reduction is observed compared to the 1% AEP event, both within and outside the Site, especially at the northwestern corner, and within the existing eastern channel. No adverse flood level increases are observed external to the Site.

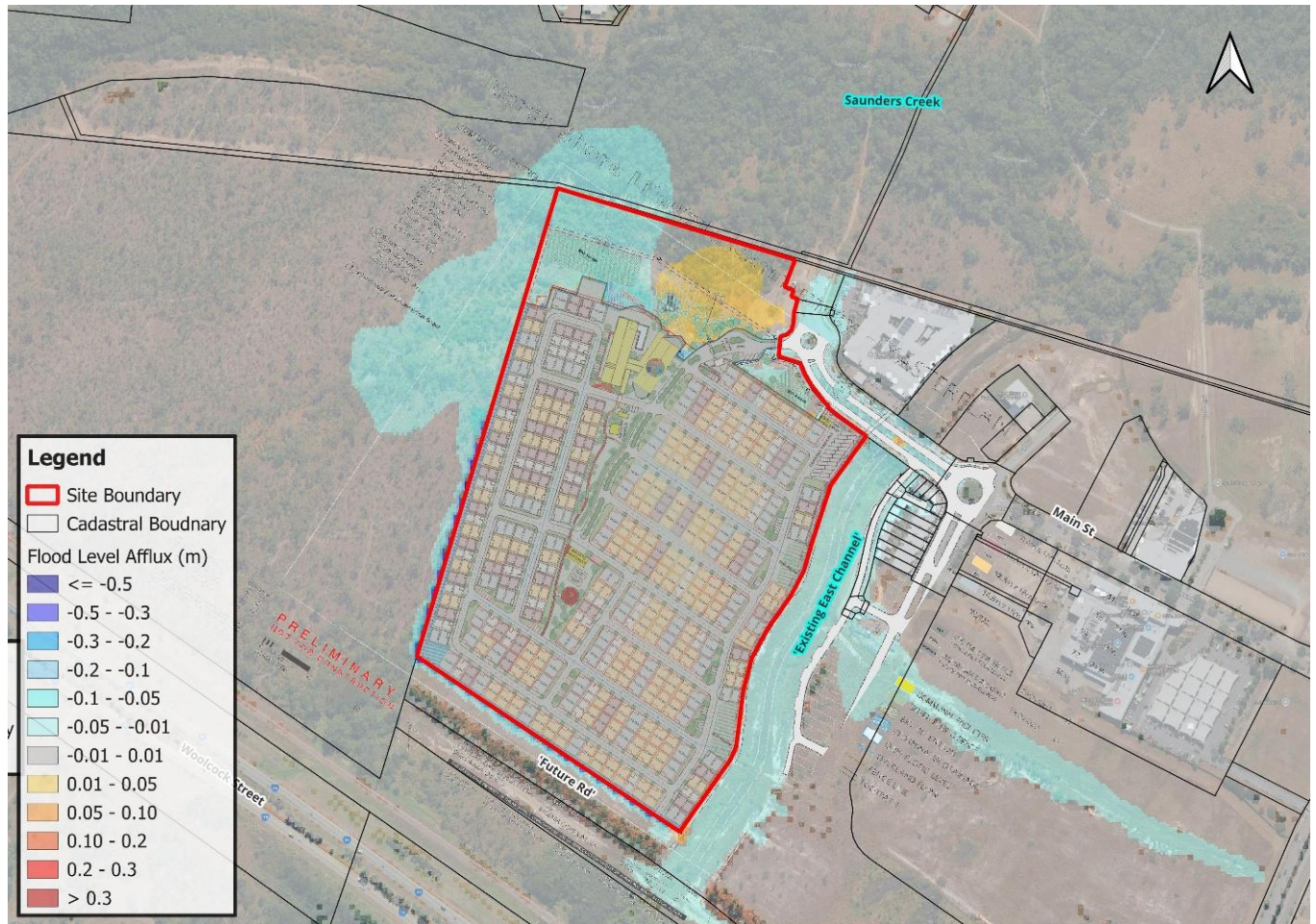


Figure 3.4: 10% AEP Flood Level Afflux

### 3.3.3 50% AEP Flood Level Afflux

The 50% AEP flood impact mapping (refer to Figure 3.5) shows similar trends to the 10% AEP event, with flood level increases generally minor and contained. However, one small area of flood level increase is observed just outside the Site boundary, located at the roundabout between the Site and the adjacent aged care facility. The increase is approximately 10 mm and is limited to the road reserve and a small portion of the aged care carpark.

Importantly, no flood level increases are observed over any aged care buildings or critical infrastructure, and the change remains well within typical modelling tolerances. Given its minor magnitude, location within non-critical external areas, and the fact that it does not result in any material impact, the change is considered acceptable from flooding perspective.

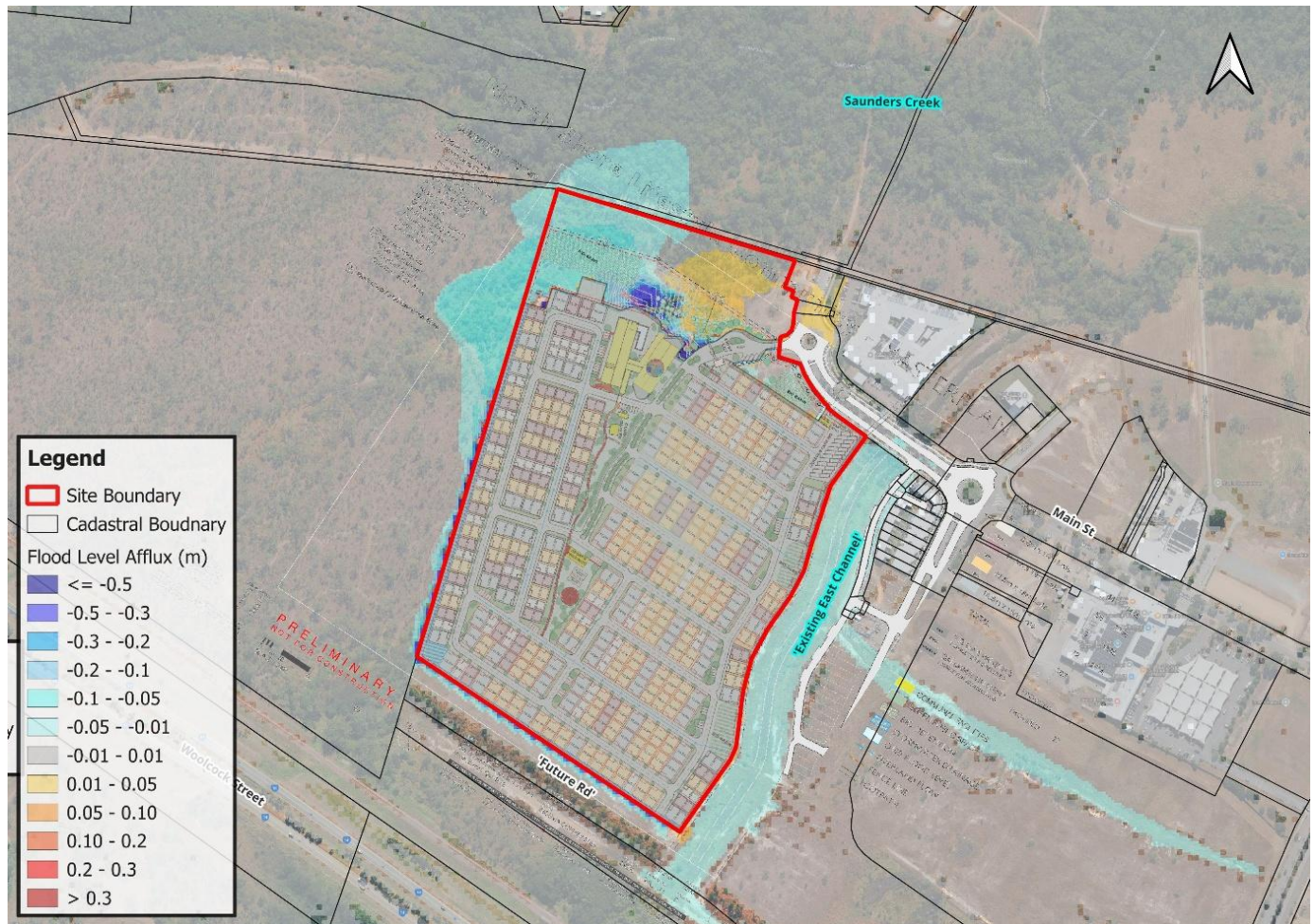


Figure 3.5: 50% AEP Flood Level Afflux

## 4. CONCLUSION

A hydraulic impact assessment has been undertaken to evaluate the potential flood impacts associated with the proposed development of the Ingenia Lifestyle Community at North Shore, Townsville, using the 2023 Bohle River Flood Study hydraulic model as the base to represent existing flood conditions. The model was then updated to incorporate the proposed development layout and drainage features for assessment of the developed case.

Both existing and developed case scenarios were simulated across a range of design events (50%, 10%, and 1% AEP), with same critical durations and boundary conditions to enable direct comparison.

Key outcomes of the assessment are summarised as follows:

- The developable area of the Site remains flood free in the 1% AEP event, satisfying relevant flood immunity requirements.
- Two open channel drains and a shallow depression zone were incorporated to convey upstream external overland flows through the Site while maintaining floodplain connectivity.
- In the 1% AEP flood event, flood level reductions were observed along key flow paths, including within the Site, adjacent road reserves, and the neighbouring shopping centre to the east.
- In all simulated design events, minor flood level increases generally less than 20mm were contained within the Site boundary. For the 50% AEP event, some small flood level increases were observed just outside the Site boundary, primarily within road reserves and carpark areas. These changes are considered acceptable and do not result in adverse impacts to surrounding properties or critical infrastructure.

It is noted that the proposed site plan provided by the client differs slightly from the lot layout represented in the hydraulic model. Specifically, some lots along the northern boundary have been pulled back, and the internal road layout has been slightly realigned. While the modelled scenario reflects a slightly larger filled footprint, the results indicate that flood impacts are already contained within the Site boundary. Therefore, the minor reduction and realignment of the development extent as shown in the proposed site plan attached in Appendix A is not expected to worsen the modelled flood outcomes. Based on the current modelling results, no adverse flood impacts are anticipated.

## 5. QUALIFICATIONS

- (a) In preparing this document, including all relevant calculation and modelling, Engeny Australia Pty Ltd (Engeny) has exercised the degree of skill, care and diligence normally exercised by members of the engineering profession and has acted in accordance with accepted practices of engineering principles.
- (b) Engeny has used reasonable endeavours to inform itself of the parameters and requirements of the project and has taken reasonable steps to ensure that the works and document is as accurate and comprehensive as possible given the information upon which it has been based including information that may have been provided or obtained by any third party or external sources which has not been independently verified.
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  - (ii) Engeny considers it prudent to revise any aspect of the works in light of any information which becomes known to it after the date of submission.
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- (f) If any claim or demand is made by any person against Engeny on the basis of detriment sustained or alleged to have been sustained as a result of reliance upon the Report or information therein, Engeny will rely upon this provision as a defence to any such claim or demand.
- (g) This Report does not provide legal advice.

---

# APPENDIX A: PROPOSE SITE PLAN

# North Shore Lifestyle Community - MASTERPLAN

## COMMUNAL LEGEND

- ① **Main Clubhouse**  
"Northshore Clubhouse"  
- Function Hall  
- Main Kitchen & Servery  
- Bar / Lounge  
- Recreation / Pool Tables  
- Arts & Craft Area  
- Resort Style Pool  
- Gym / Yoga  
- Quiet Game / Library  
- Outdoor BBQ Area  
- Outdoor Seating  
- Salon / Consult  
- Community Bus
- ② **Sports Precinct**  
"Club Northshore"  
- Pickleball Court  
- Outdoor BBQ Area
- ③ **Workshop / Maintenance Shed**



## LEGEND

9.6m	18m	<b>9.6m x 18m Lots</b>	44	14%
11.3m	18m	<b>11.3m x 18m Lots</b>	56	17%
12.5m	18m	<b>12.5m x 18m Lots</b>	131	45%
14.5m	18m	<b>14.5m x 18m Lots</b>	72	24%

**TOTAL 303**

<b>CAR</b>	<b>VIS CAR PARKING</b>		
	1 SPACE PER 5 DWELLINGS	PROVIDED	65
<b>CARAVAN</b>	<b>CARAVAN PARKING</b>		
	1 SPACE PER 10 DWELLINGS	PROVIDED	23

- COMMUNAL FACILITIES
- GREEN PUBLIC SPACE
- BIO DETENTION
- STORMWATER DRAINAGE
- Q 100 FLOOD LEVEL
- OVERLAND FLOW
- FENCE LINE
- FOOTPATH

REV	DATE	DESCRIPTION	DRAWN	CHECKED
A	31/10/2025	DRAFT DA ISSUE	JRY	LH
B	26/11/2025	COORDINATION ISSUE	DH	LH
C	28/11/2025	PRODUCT MIX UPDATE	DH	OGE
D	16/12/2025	COORDINATION ISSUE	DH	OGE
E	18/12/2025	DRAFT DA ISSUE	DH	OGE
F	16/1/2026	COORDINATION ISSUE	DH	DH

NOTE: Figured dimensions to be taken in preference to scaled. Verify all dimensions on site before commencing work or making shop drawings. When printing from electronic files it is the responsibility of the operator to ensure the required scale is achieved.

**PRELIMINARY**  
**NOT FOR CONSTRUCTION**

SCALE 1:2000



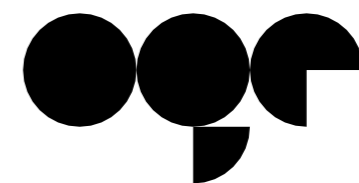
PROJECT  
North Shore Lifestyle Community  
Part Majors Creek Junction, 74 Main Street, Burdell, Qld 4818

DRAWING TITLE  
MASTERPLAN  
CLIENT  
INGENIA COMMUNITIES

DATE  
16/1/2026  
SCALE @ A3  
1:2000  
PROJECT No.  
25026  
DRAWING No.  
DA\_I.11  
ISSUE No.  
F

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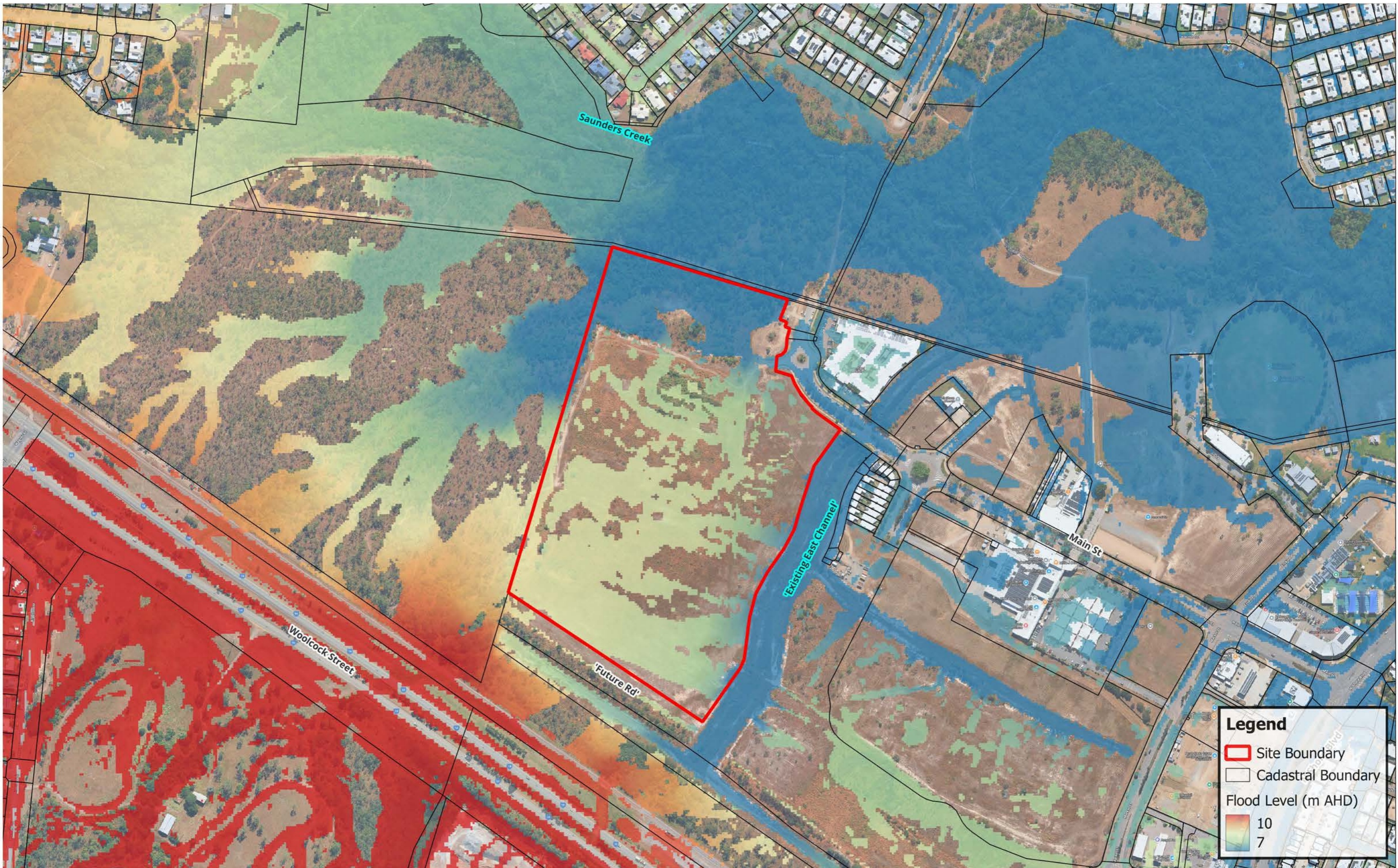
O.G.E Group Pty. Ltd. Level 1 "The Old Courthouse" PO Box 281 info@ogegroup.com.au QLD Reg. No. 4212  
T (07) 5444 8883 4 First Avenue, Maroochydore Q 4558 Maroochydore Q 4558 www.ogegroup.com.au NSW Reg. No. 11843



**OGE Group**  
**Architects**

---

# APPENDIX B: EXISTING CASE FLOOD MAPPING



**Legend**

- Site Boundary
- Cadastral Boundary

Flood Level (m AHD)

10	
7	

R	DETAILS	DATE
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APPROVED	DN	DATE	27-01-2026

NOTES:

0      100      200 m

SCALE @ A3 - 1:4,200  
GDA94 / MGA zone 55

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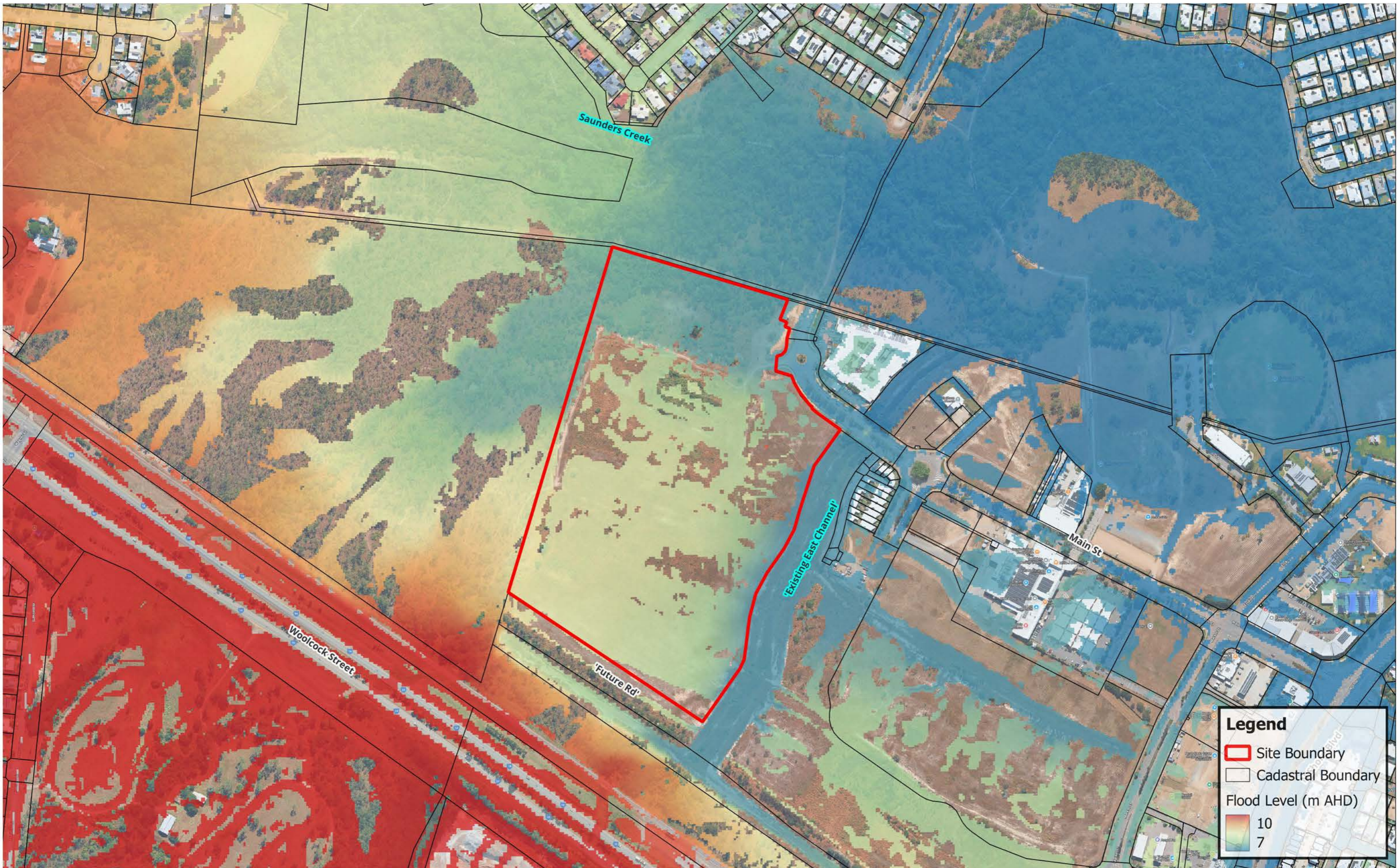
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**Appendix B.1**

Premise  
Ingenia Lifestyle Community HIA  
Existing Scenario Flood Mapping  
50% AEP Flood Height

Dig Ref:



**Legend**

- Site Boundary
- Cadastral Boundary
- Flood Level (m AHD)
- 10
- 7

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NOTES:

N

0                      100                      200 m

SCALE @ A3 - 1:4,200  
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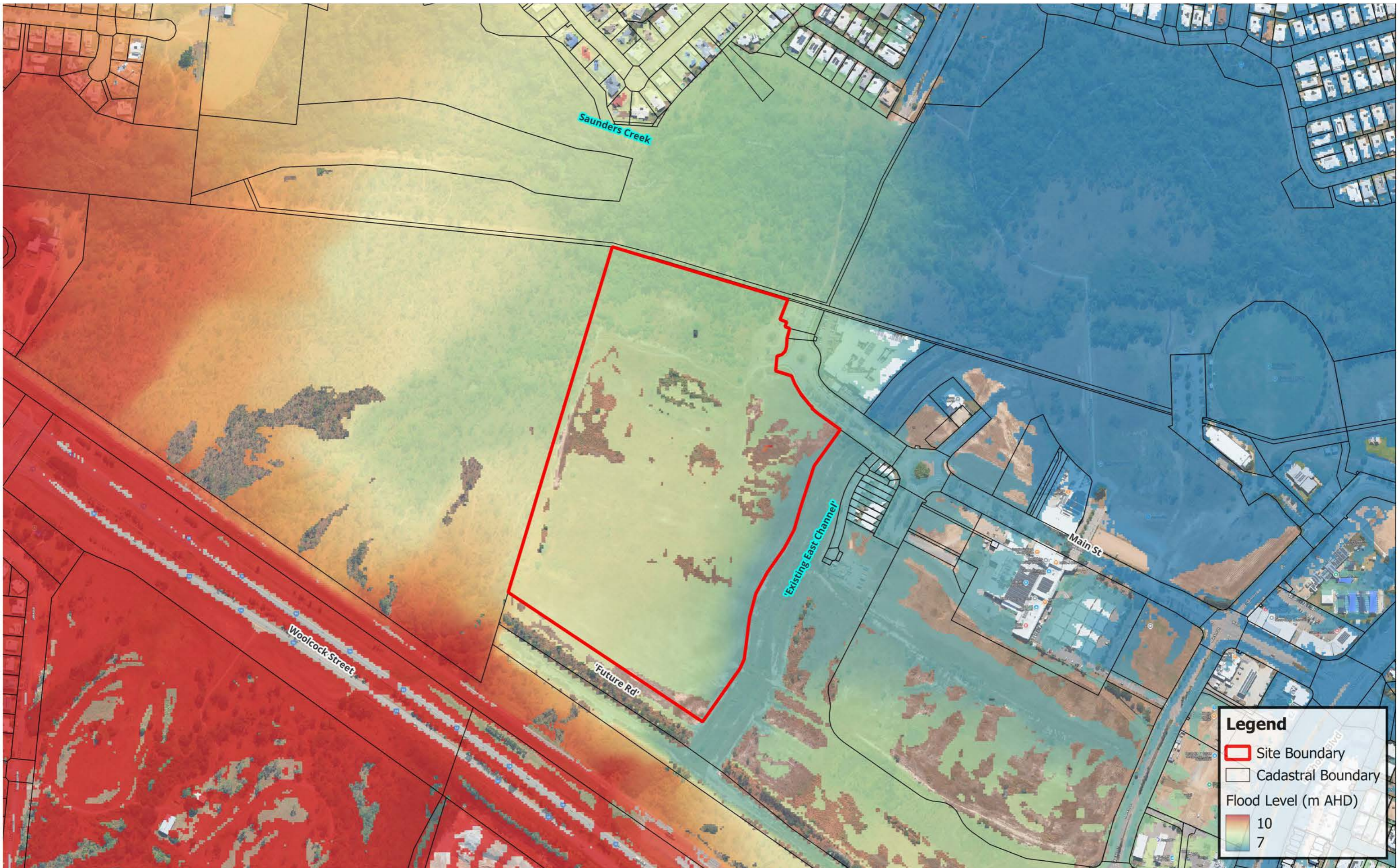
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**Appendix B.2**

Premise  
Ingenia Lifestyle Community HIA  
Existing Scenario Flood Mapping  
10% AEP Flood Height

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		27-01-2026

NOTES:

N



0      100      200 m

SCALE @ A3 - 1:4,200  
GDA94 / MGA zone 55

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**Appendix B.3**

Premise  
Ingenia Lifestyle Community HIA  
Existing Scenario Flood Mapping  
1% AEP Flood Height

Dwg Ref:



**Legend**

- Site Boundary
- Cadastral Boundary
- Flood Depth (m)
- <= 0.05
- 0.05 - 0.10
- 0.10 - 0.30
- 0.30 - 0.50
- 0.50 - 1.00
- > 1.00

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APPROVED	DN	DATE
		27-01-2026

NOTES:

N

0      100      200 m

SCALE @ A3 - 1:4,200  
GDA94 / MGA zone 55

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**Appendix B.4**

Premise  
Ingenia Lifestyle Community HIA  
Existing Scenario Flood Mapping  
50% AEP Flood Depth

Dwg Ref:



**Legend**

- Site Boundary
- Cadastral Boundary
- Flood Depth (m)
- <= 0.05
- 0.05 - 0.10
- 0.10 - 0.30
- 0.30 - 0.50
- 0.50 - 1.00
- > 1.00

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NOTES:

N

0      100      200 m

SCALE @ A3 - 1:4,200  
GDA94 / MGA zone 55

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**Appendix B.5**

Premise  
Ingenia Lifestyle Community HIA  
Existing Scenario Flood Mapping  
10% AEP Flood Depth



**Legend**

- Site Boundary
- Cadastral Boundary
- Flood Depth (m)
- <= 0.05
- 0.05 - 0.10
- 0.10 - 0.30
- 0.30 - 0.50
- 0.50 - 1.00
- > 1.00

R	DETAILS	DATE
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NOTES:

N

0      100      200 m

SCALE @ A3 - 1:4,200  
GDA94 / MGA zone 55

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**Appendix B.6**

Premise  
Ingenia Lifestyle Community HIA  
Existing Scenario Flood Mapping  
1% AEP Flood Depth



**Legend**

- Site Boundary
- Cadastral Boundary

Flood Velocity (m/s)

- <= 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 1.5
- > 1.5

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NOTES:

N

0      100      200 m

SCALE @ A3 - 1:4,200  
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**Appendix B.7**

Premise  
Ingenia Lifestyle Community HIA  
Existing Scenario Flood Mapping  
50% AEP Flood Velocity



**Legend**

- Site Boundary
- Cadastral Boundary

Flood Velocity (m/s)

- <= 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 1.5
- > 1.5

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NOTES:

N

0      100      200 m

SCALE @ A3 - 1:4,200  
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**Appendix B.8**

Premise  
Ingenia Lifestyle Community HIA  
Existing Scenario Flood Mapping  
10% AEP Flood Velocity



**Legend**

- Site Boundary
- Cadastral Boundary

**Flood Velocity (m/s)**

- <= 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 1.5
- > 1.5


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NOTES:



0      100      200 m

SCALE @ A3 - 1:4,200  
GDA94 / MGA zone 55

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**Appendix B.9**

Premise  
Ingenia Lifestyle Community HIA  
Existing Scenario Flood Mapping  
1% AEP Flood Velocity

---

# APPENDIX C: DEVELOPED CASE FLOOD MAPPING



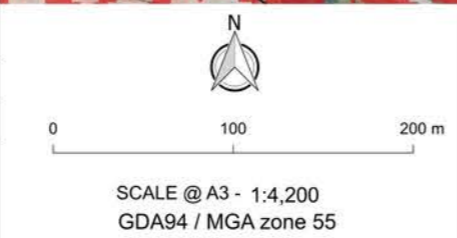
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**Appendix C.1**  
Premise  
Ingénia Lifestyle Community HIA  
Developed Scenario Flood Mapping  
50% AEP Flood Height



**Legend**

- Site Boundary
- Cadastral Boundary
- Flood Level (m AHD)
- 10
- 7


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NOTES:



0      100      200 m

SCALE @ A3 - 1:4,200  
GDA94 / MGA zone 55

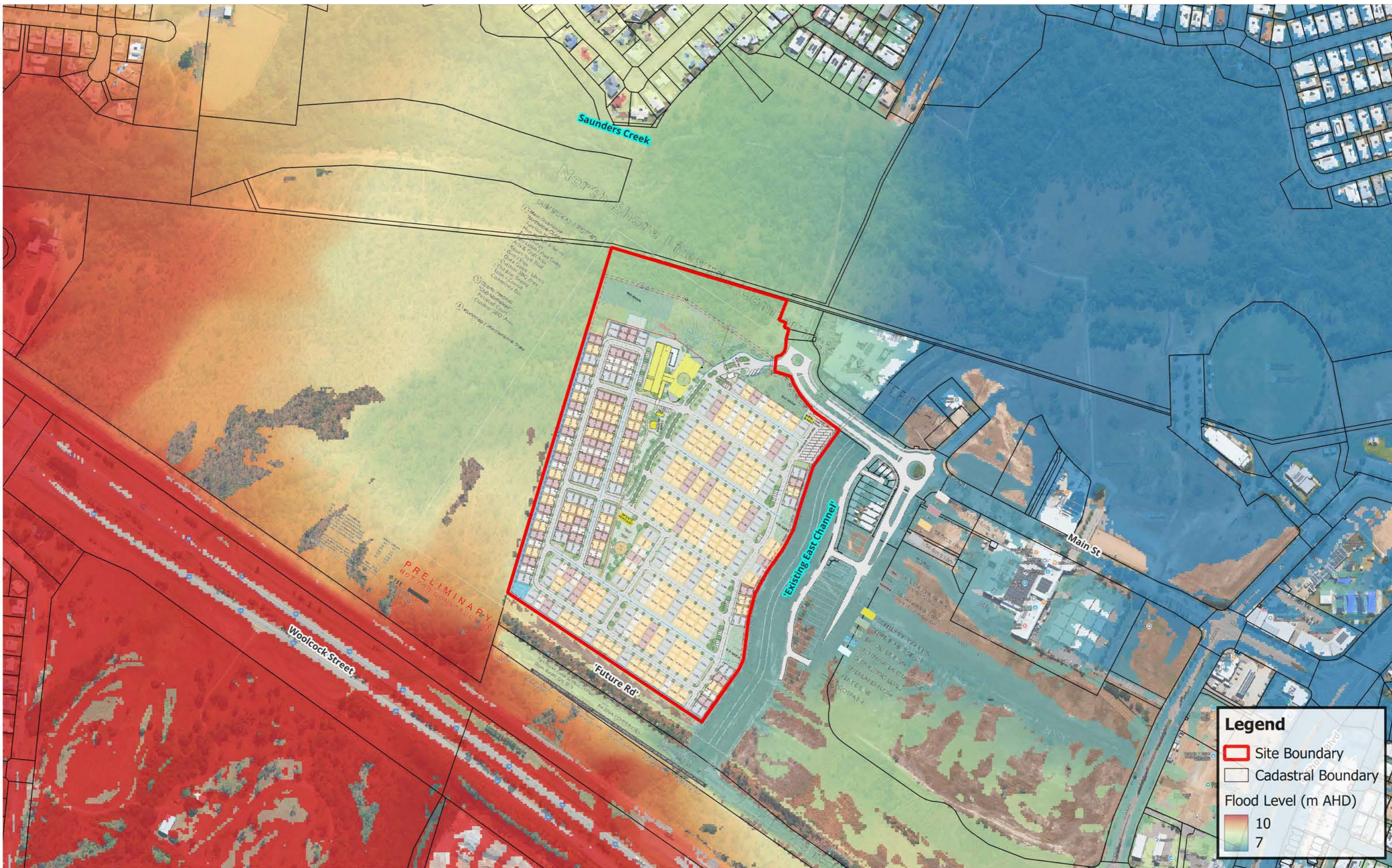
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**Appendix C.2**

Premise  
Ingénia Lifestyle Community HIA  
Developed Scenario Flood Mapping  
10% AEP Flood Height



**PRELIMINARY**  
NOT FOR CONSTRUCTION

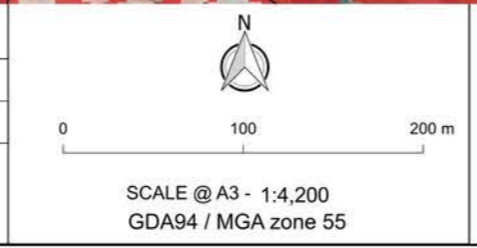
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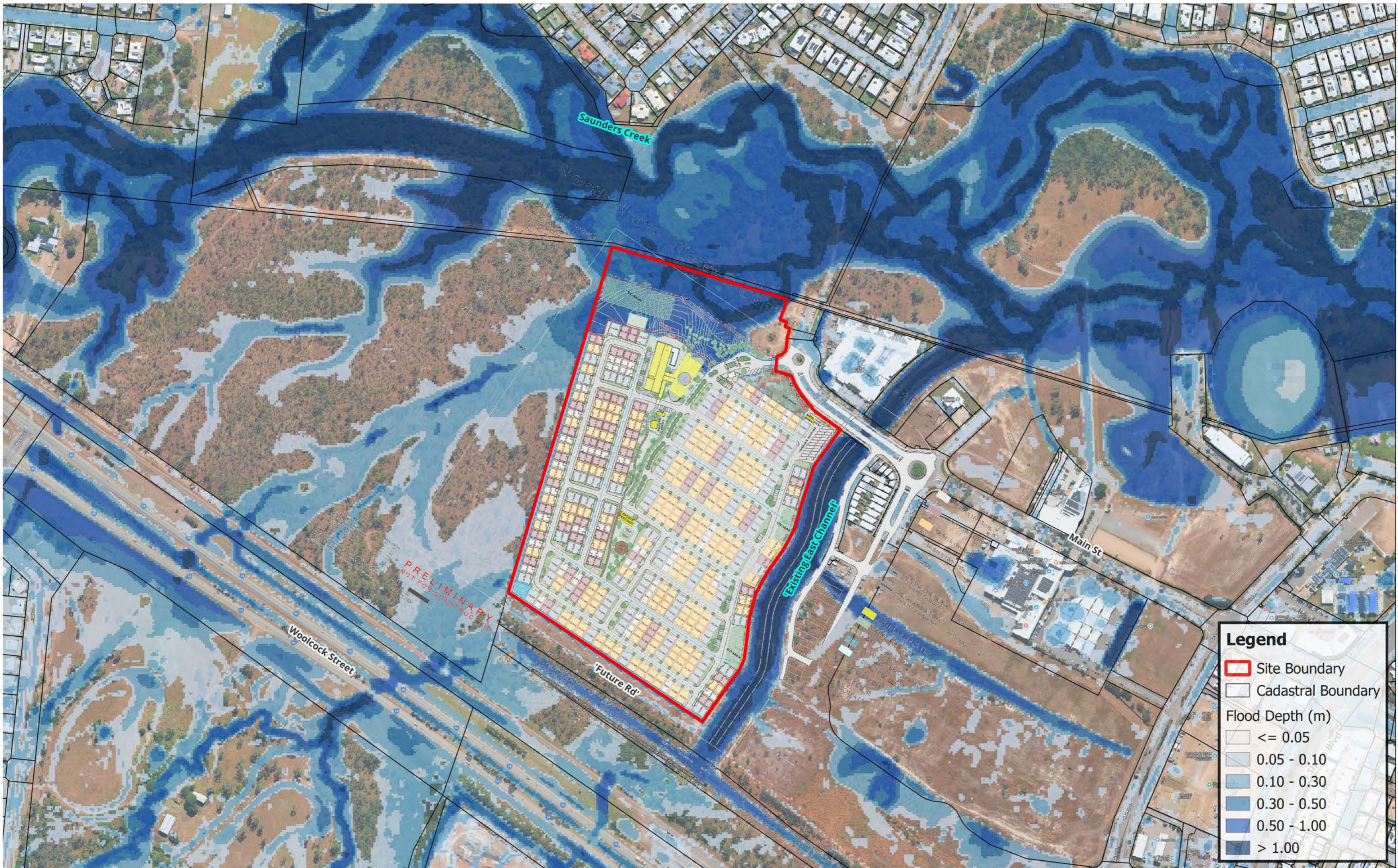
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**Appendix C.3**

Premise  
Ingénia Lifestyle Community HIA  
Developed Scenario Flood Mapping  
1% AEP Flood Height



**Legend**

- Site Boundary
- Cadastral Boundary
- Flood Depth (m)
- <= 0.05
- 0.05 - 0.10
- 0.10 - 0.30
- 0.30 - 0.50
- 0.50 - 1.00
- > 1.00


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NOTES:



0      100      200 m

SCALE @ A3 - 1:4,200  
GDA94 / MGA zone 55

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**Appendix C.4**

Premise  
Ingenia Lifestyle Community HIA  
Developed Scenario Flood Mapping  
50% AEP Flood Depth



**Legend**

- Site Boundary
- Cadastral Boundary
- Flood Depth (m)
- <= 0.05
- 0.05 - 0.10
- 0.10 - 0.30
- 0.30 - 0.50
- 0.50 - 1.00
- > 1.00

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NOTES:

N

0      100      200 m

SCALE @ A3 - 1:4,200  
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**Appendix C.5**

Premise  
Ingenia Lifestyle Community HIA  
Developed Scenario Flood Mapping  
10% AEP Flood Depth

Dwg Ref:



PRELIMINARY  
NOT FOR CONSTRUCTION

**Legend**

- Site Boundary
- Cadastral Boundary
- Flood Depth (m)
- <= 0.05
- 0.05 - 0.10
- 0.10 - 0.30
- 0.30 - 0.50
- 0.50 - 1.00
- > 1.00

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NOTES:

N

0      100      200 m

SCALE @ A3 - 1:4,200  
GDA94 / MGA zone 55

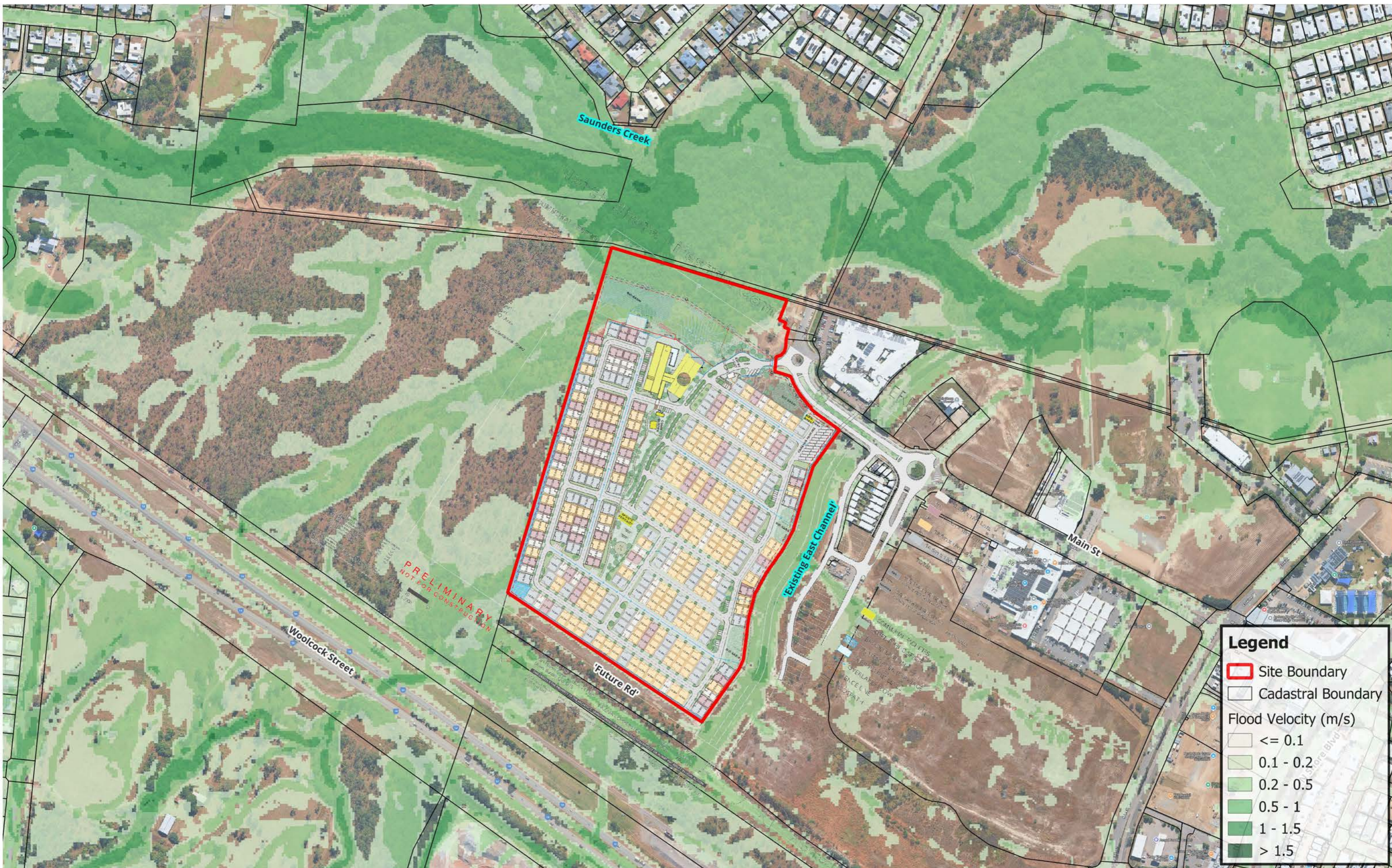
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**Appendix C.6**

Premise  
Ingenia Lifestyle Community HIA  
Developed Scenario Flood Mapping  
1% AEP Flood Depth



**Legend**

- Site Boundary
- Cadastral Boundary

Flood Velocity (m/s)

- <= 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 1.5
- > 1.5


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NOTES:



0 100 200 m

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GDA94 / MGA zone 55

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**Appendix C.7**

Premise  
Ingenia Lifestyle Community HIA  
Developed Scenario Flood Mapping  
50% AEP Flood Velocity