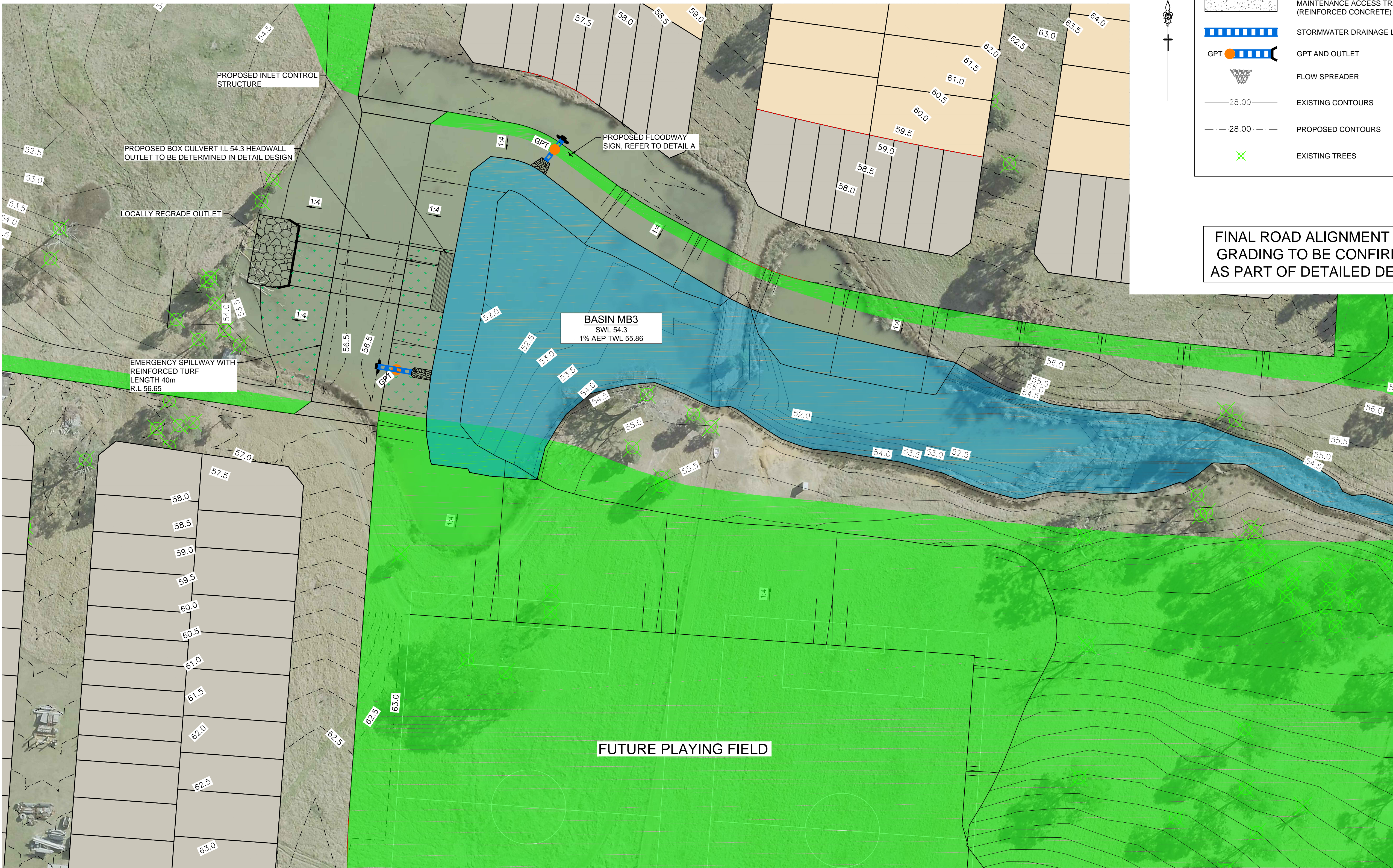


## **APPENDIX A – CONCEPT DESIGN PLANS**





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BASIN SUMMARY TABLE	
BASIN NAME	MB3
POND STORAGE (m³)	7,830

LEGEND	
	ROCK SCOUR PROTECTION
	PERMANENT WATER
	MAINTENANCE ACCESS TRACK (REINFORCED CONCRETE)
	STORMWATER DRAINAGE LINE
	GPT AND OUTLET
	FLOW SPREADER
	EXISTING CONTOURS
	PROPOSED CONTOURS
	EXISTING TREES

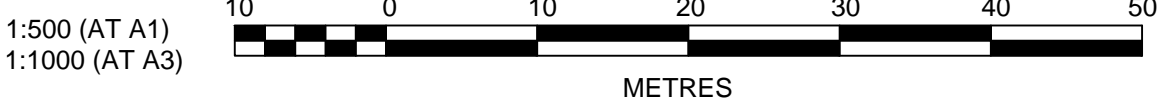
FINAL ROAD ALIGNMENT AND GRADING TO BE CONFIRMED AS PART OF DETAILED DESIGN



DETAIL A  
FLOODWAY SIGN  
NTS

DRAFT ISSUE ONLY  
PRELIMINARY DESIGNS SUBJECT TO CHANGE

PLAN  
SCALE 1:500



C	ADDED MASTERPLAN HATCH & AERIAL	CC/JCA	CC/JCA	DC	DC	12/04/22
B	ISSUE FOR REVIEW	CC/JCA	CC/JCA	DC	MS	08/04/22
A	ISSUE FOR REVIEW	CC/JCA	JCA/NM	DC	MS	22/12/21
	AMENDMENT	DES	DRN	CKD	APR	DATE

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P 02 4720 3300 W [www.jwprince.com.au](http://www.jwprince.com.au) E [jwp@jwprince.com.au](mailto:jwp@jwprince.com.au)

CLIENT:



STATUS:

**ADVANCE COPY**  
**DESIGN SUBJECT TO CHANGE**  
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GP3 MULGOA PLANNING PROPOSAL  
BASIN AND RAINGARDEN CONCEPT

DETAIL PLAN MB3

PROJECT No:

110474-02

SHEET No:

SK101

AZIMUTH: M.G.A.

DATUM: A.H.D.

ORIGIN:

PLAN No:

110474-02-SK101

C















Plotted: 13 April, 2022 6:20:34 PM File Name: J:\110474 - Mulgoa Planning Proposal\CD\SK110474-02-SK130.dwg



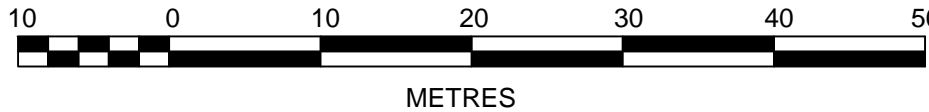
**DETAIL A  
FLOODWAY SIGN**  
NTS

LEGEND	
	ROCK SCOUR PROTECTION
	PERMANENT WATER
	MAINTENANCE ACCESS TRACK (REINFORCED CONCRETE)
	4m WIDE MAINTENANCE ACCESS TRACK (CRUSHED SANDSTONE)
	STORMWATER DRAINAGE LINE
	GPT AND OUTLET
	FLOW SPREADER
	E2 ENVIRONMENTAL CONSERVATION

**DRAFT ISSUE ONLY**  
**PRELIMINARY DESIGNS SUBJECT TO CHANGE**

PLAN  
SCALE 1:500

1:500 (AT A1)  
1:1000 (AT A3)



**FINAL ROAD ALIGNMENT AND  
GRADING TO BE CONFIRMED  
AS PART OF DETAILED DESIGN**

REV	DESCRIPTION	DES	DRN	CKD	APR	DATE
B	AMENDED BASIN DETAIL LEVELS AND HATCH	CC/JCA	CC/JCA	DC	DC	12/04/22
A	ISSUE FOR REVIEW	CC/JCA	JCA	DC	DC	11/04/22
	AMENDMENT	DES	DRN	CKD	APR	DATE

**J. WYNDHAM PRINCE**  
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**GP3 MULGOA PLANNING PROPOSAL  
BASIN AND RAINGARDEN CONCEPT**

DETAIL PLAN MB1

PROJECT No:

**110474-02**

SHEET No:

**SK130**

AZIMUTH: M.G.A.

DATUM: A.H.D.

ORIGIN:

PLAN No: 110474-02-SK130

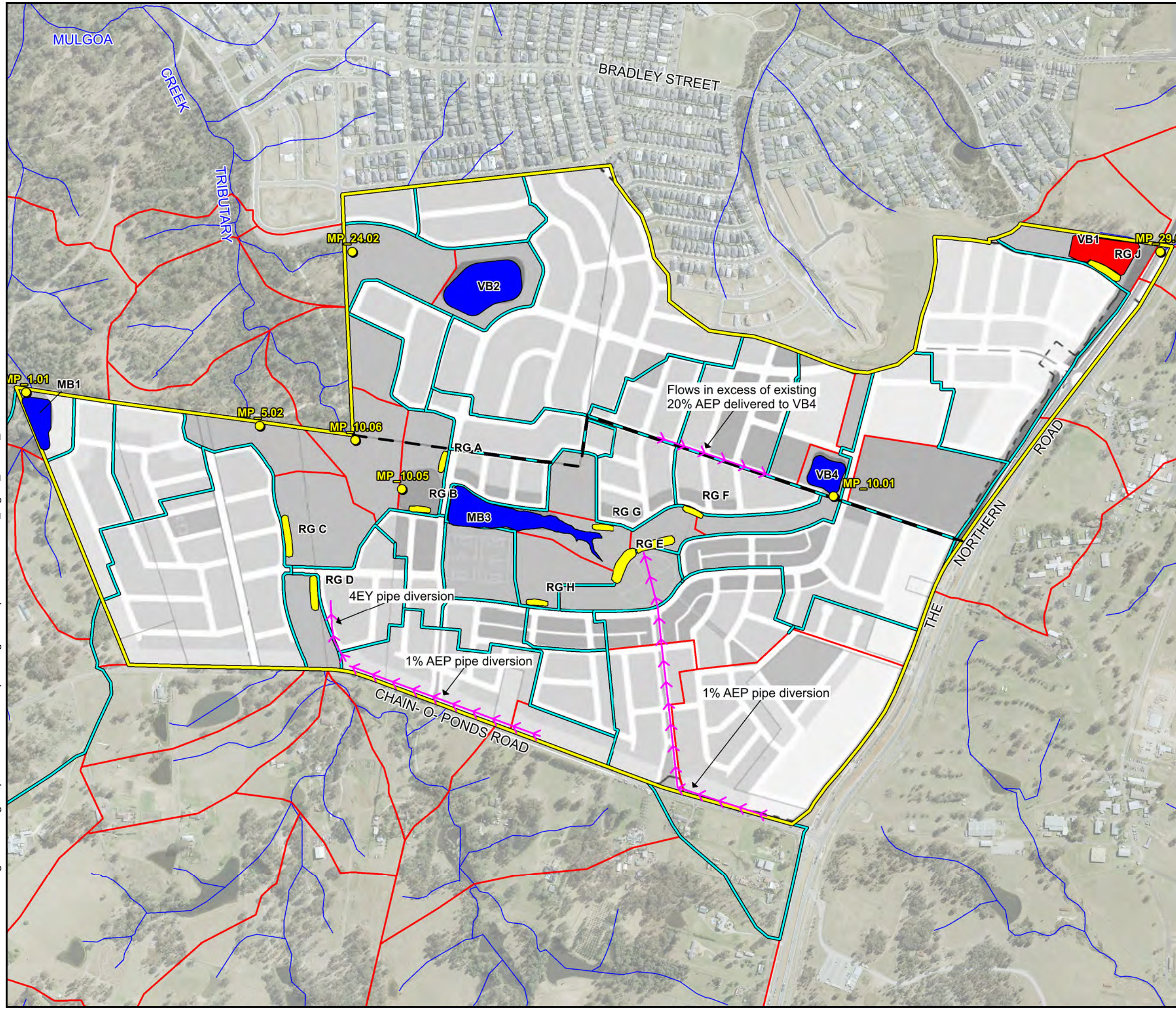
B



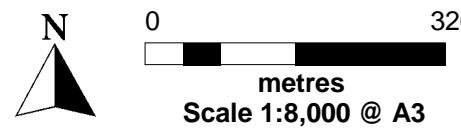
## **APPENDIX B - FIGURES**



Filename: "J:\110474 - Mulgoa Planning Proposal\02-SWMS\MapInfo\Figures\Report C\110474-02\_Fig1-1\_WCMP\_C.WOR"



- LEGEND**
- Site Boundary
  - MUSIC Catchments
  - XP-RAFTS Catchments
  - Indicative Detention Basin (over pond)
  - Indicative Detention Basin (dry bed)
  - Indicative Raingarden
  - Drainage Diversion
  - Comparison Node
  - Landholder Boundary

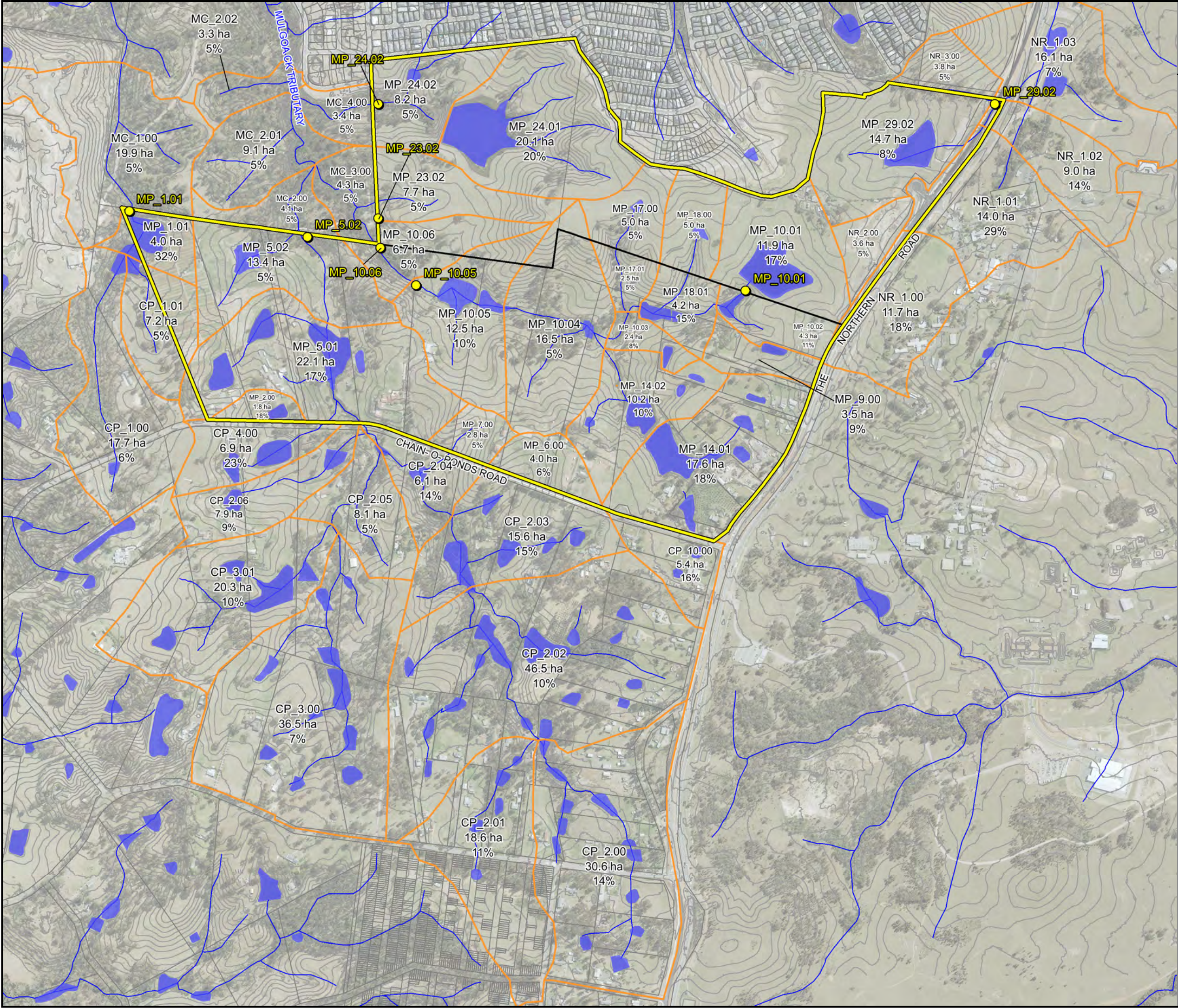


Projection: GDA 1994 MGA Zone 56

**Figure 1-1**  
**Glenmore Park Stage 3**

**Water Cycle Management Plan**





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**LEGEND**

Site Boundary

XP-RAFTS Catchments

MP\_1.01  
4.0 ha  
32%

XP-Rafts ID, Area and % Impervious

2m LIDAR Contours

Landholder Division

Watercourse

Existing Farm Dam

N

0

420

metres

Scale 1:10,500 @ A3

Projection: GDA 1994 MGA Zone 56

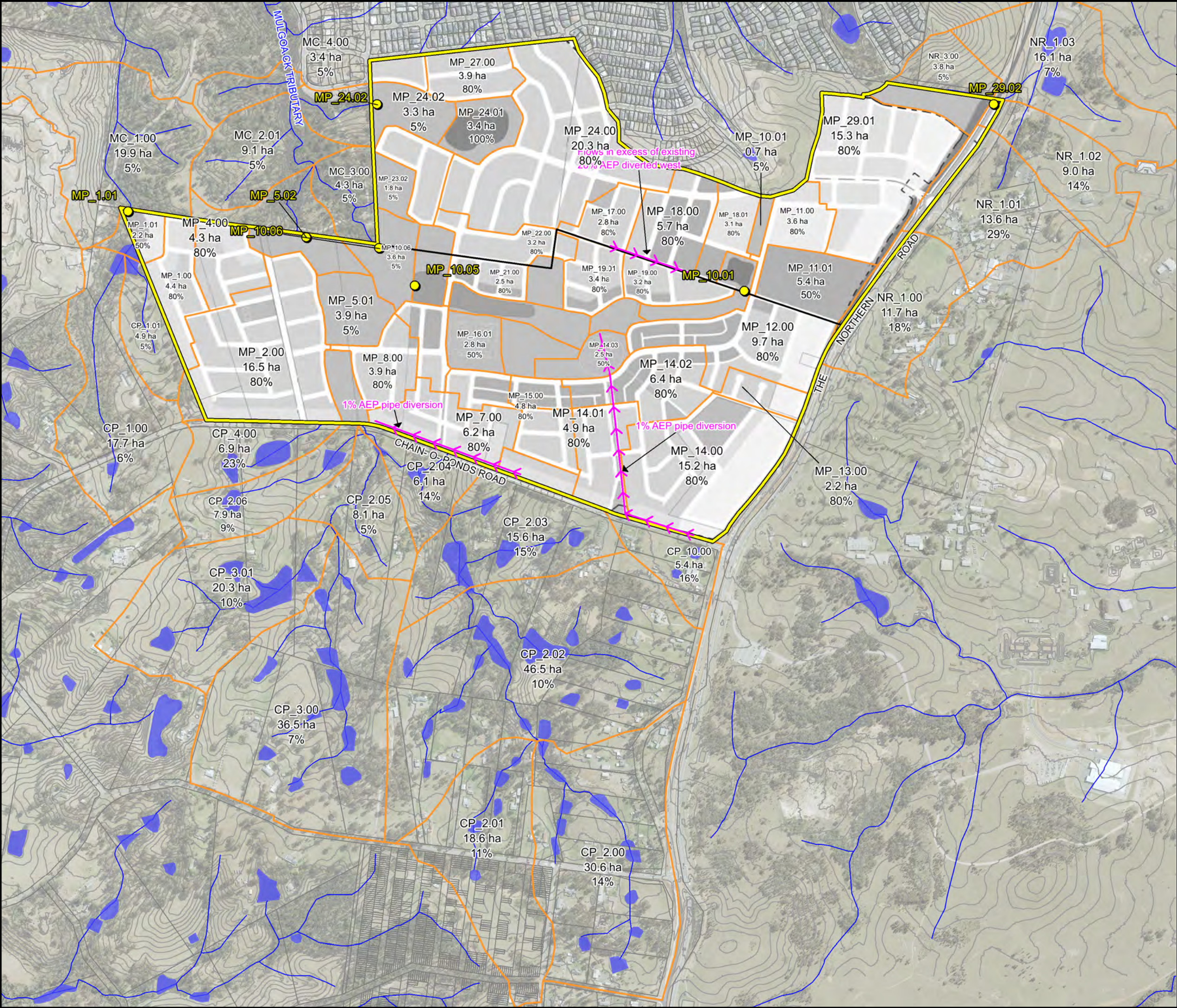
**Figure 5-1**  
**Glenmore Park Stage 3**

**XP-Rafts Catchment Plan**  
**Existing Conditions**

Date: 22/12/2021


Issue: A






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**LEGEND**

 Site Boundary


 XP-RAFTS Catchments


MP\_1.01


4.0 ha


32%


XP-Rafts ID, Area and % Impervious

 2m LIDAR Contours

 Landholder Division

 Watercourse

 Existing Farm Dam



0

metres

420

Scale 1:10,500 @ A3

Projection: GDA 1994 MGA Zone 56

**Figure 5-2**  
**Glenmore Park Stage 3**

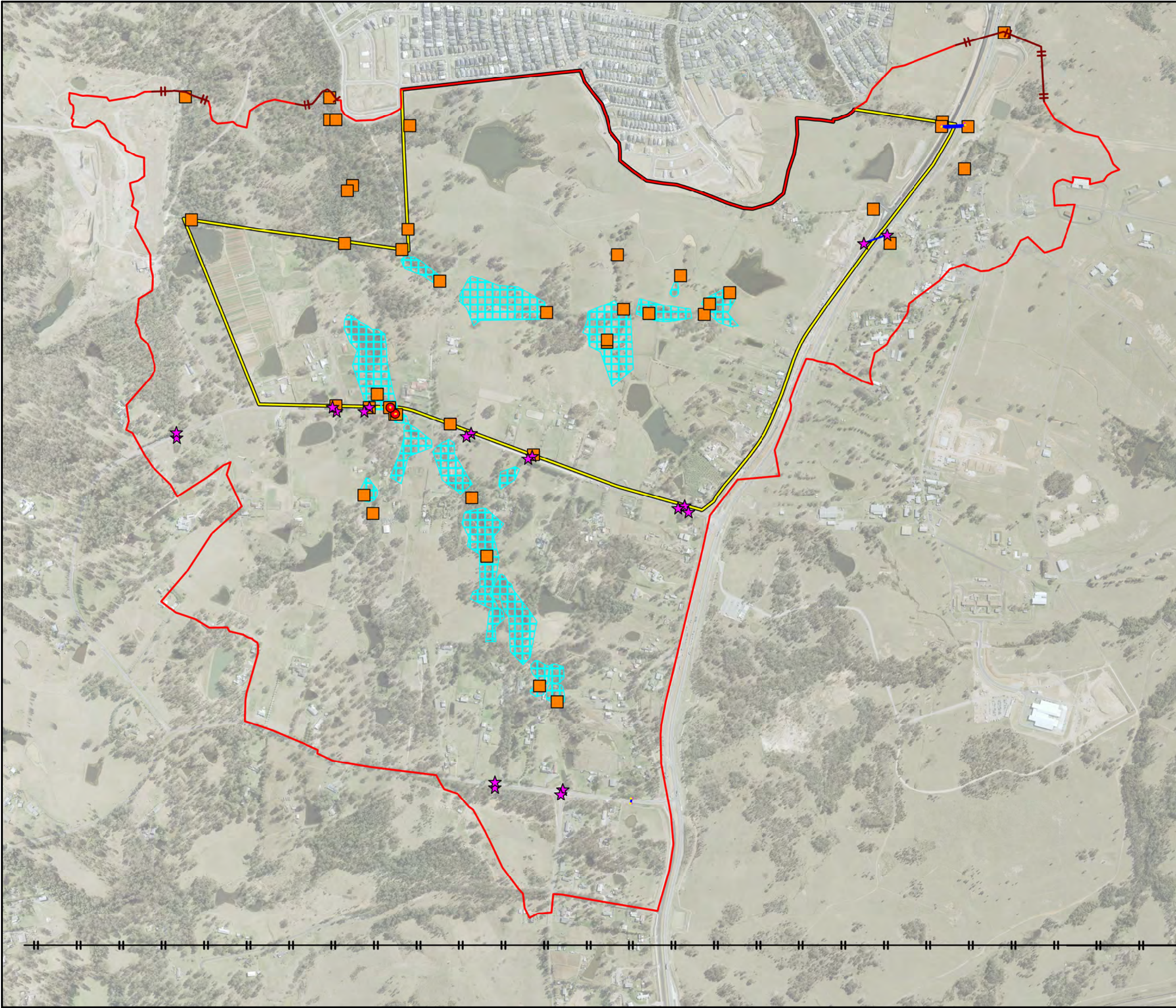
**XP-Rafts Catchment Plan**  
**Developed Conditions**

Date: 13/04/2022

Issue: C



Filename: "J:\110474 - Mulgoa Planning Proposal\02-SWMS\MapInfo\Figures\Report C\110474-02\_Fig6-1\_EX03\_TFS\_C.wor"



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**LEGEND**  
**TUFLOW MODEL ELEMENTS**

- TUFLOW Model Boundary
- SA Catchment Inflow Location
- IWL Initial Water Level Area
- 2d LOC Line
- HQ Slope Boundary
- 1D NWK Culvert
- Connection Line (CN)
- 2D SX Connection (Line)
- 2D SX Connection (Point)
- 1D IWL Initial Water Level (Point)
- 1D NWK Pit
- Site Boundary

N

0 480

metres

Scale 1:12,000 @ A3

Projection: GDA 1994 MGA Zone 56

**Figure 6-1**  
**Glenmore Park Stage 3**

**Existing Conditions**  
**TUFLOW Setup**













Date: 13/04/2022

Issue: C



**LEGEND**

**TUFLOW MODEL ELEMENTS**

-  TUFLOW Model Boundary
-  SA Catchment Inflow Location
-  IWL Initial Water Level Area
-  2d LOC Line
-  HQ Slope Boundary
-  1D NWK Culvert
-  Connection Line (CN)
-  2D SX Connection (Line)
-  2D SX Connection (Point)
-  1D IWL Initial Water Level (Point)
-  1D NWK Pit
-  Site Boundary



Projection: GDA 1994 MGA Zone 56

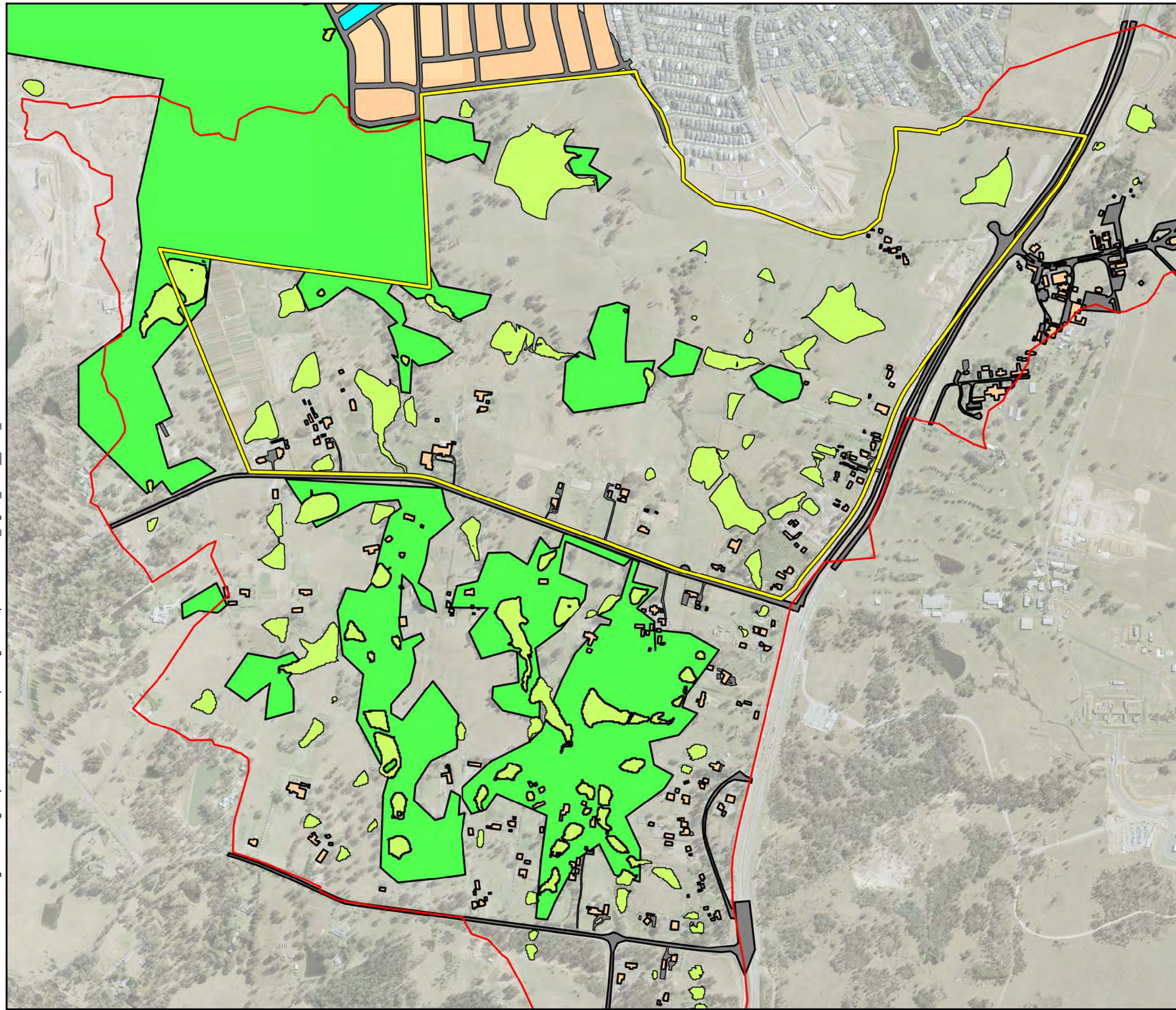
**Figure 6-2**  
**Glenmore Park Stage 3**

**Developed Conditions**  
**TUFLOW Setup**

Date: 13/04/2022

Issue: C

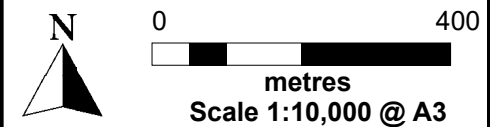




**LEGEND**

**MANNINGS VALUE**

- 0.020 Roads
- 0.100 Urban Residential
- 0.020 Lakes (No Emergent Veg)
- 0.060 Medium Vegetation
- 0.045 Vegetated Waterway/Channel
- Site Boundary
- TUFLOW Model Boundary



Projection: GDA 1994 MGA Zone 56

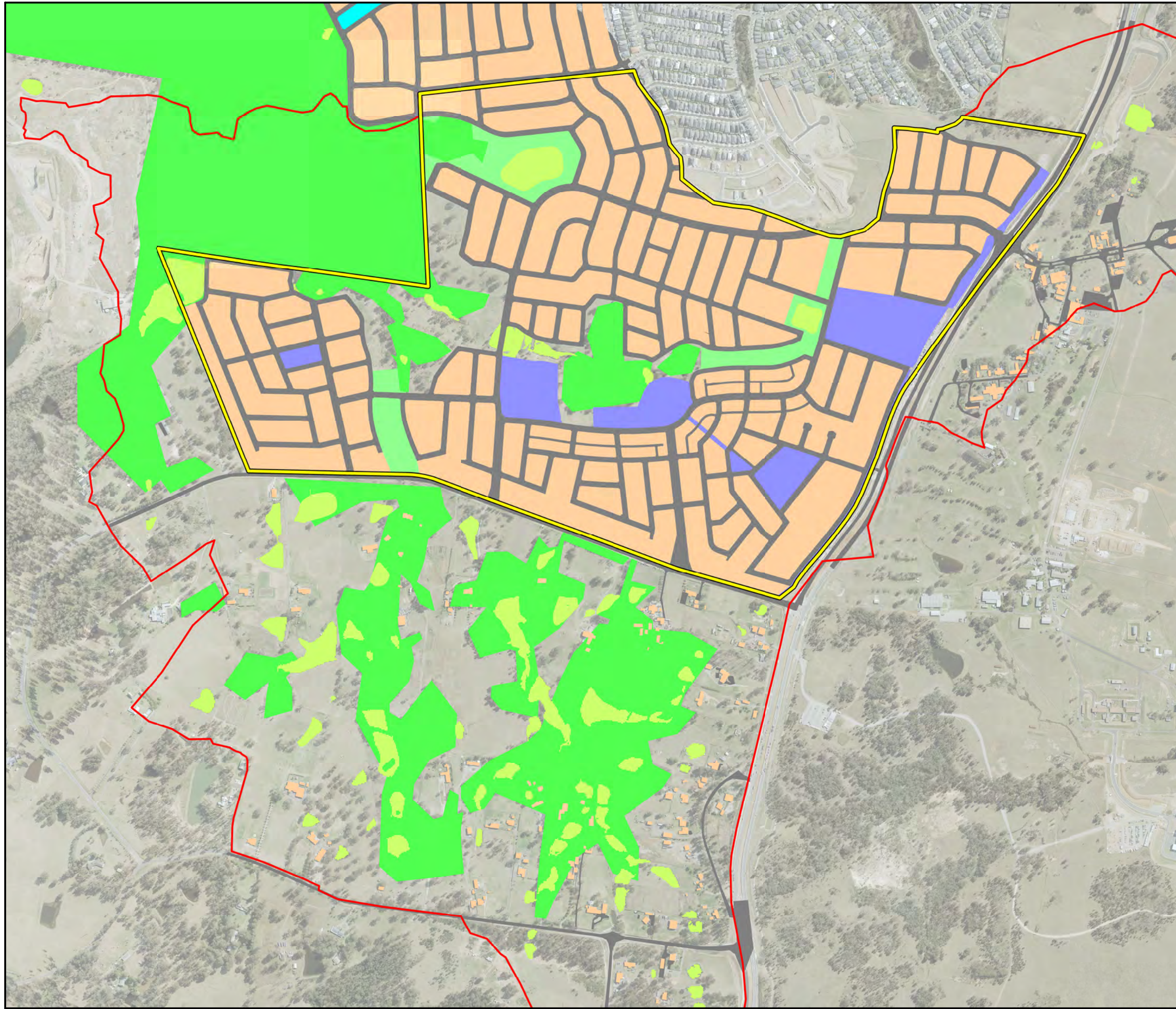
**Figure 6-3**  
**Glenmore Park Stage 3**

Existing Conditions  
TUFLOW Mannings

Date: 23/12/2021










Issue: A

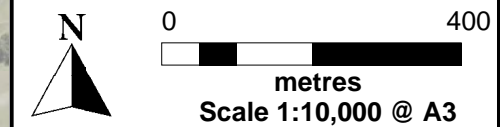




## LEGEND

### MANNINGS VALUE

	0.020 Roads
	0.100 Urban Residential
	0.020 Lakes (No Emergent Veg)
	0.045 Light Vegetation
	0.060 Medium Vegetation
	0.030 Vegetated Waterway/Channel (Minimal Vegetation)
	0.045 Vegetated Waterway/Channel
	Site Boundary
	TUFLOW Model Boundary



Projection: GDA 1994 MGA Zone 56

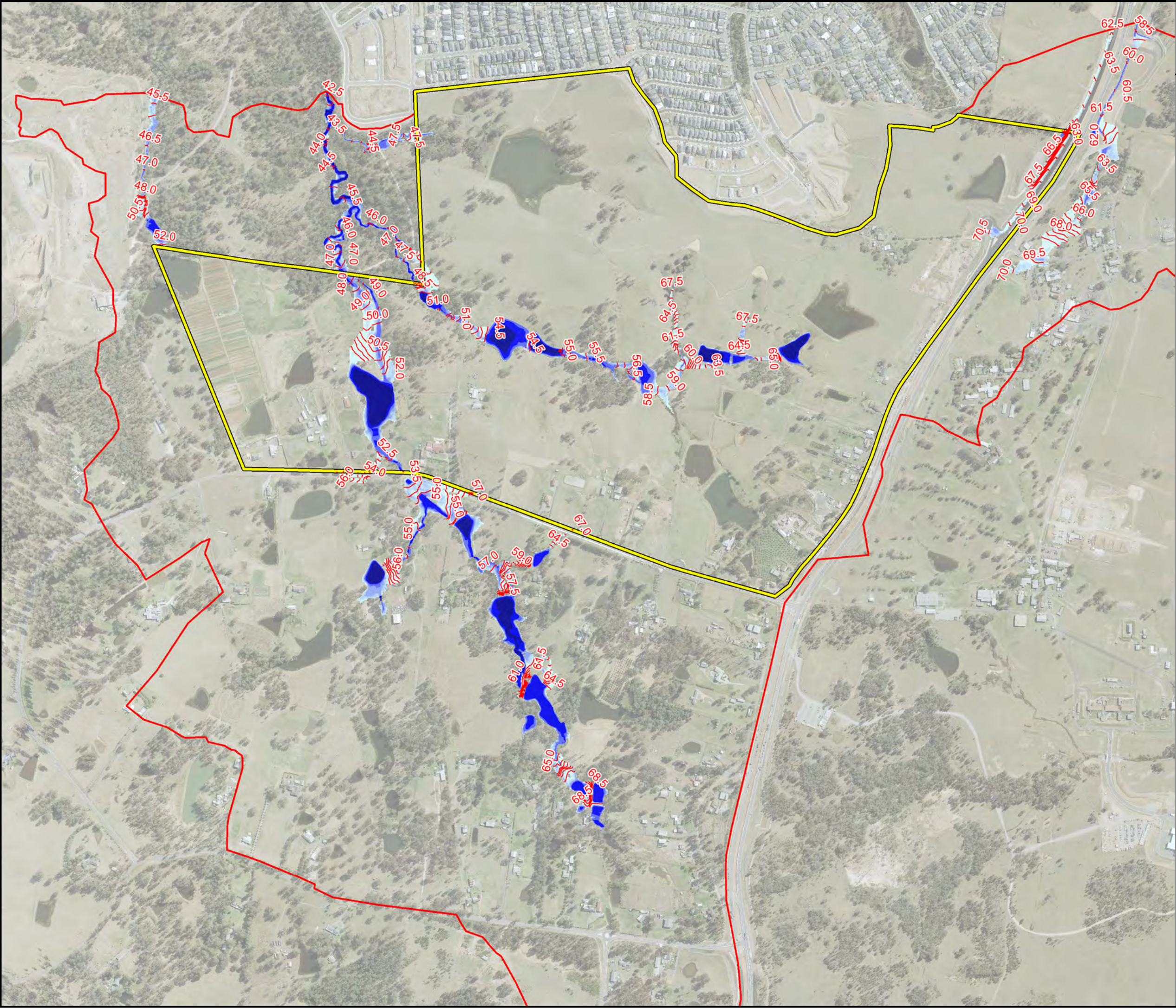
**Figure 6-4**  
**Glenmore Park Stage 3**

**Developed Conditions**  
**TUFLOW Mannings**

Date: 12/04/2022

Issue: B





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**LEGEND**

**FLOOD DEPTH (m)**

0.0 to 0.1	0.1 to 0.2	0.2 to 0.3	0.3 to 0.5	0.5 to 1.0	1.0 to 2.0	2.0 +
------------	------------	------------	------------	------------	------------	-------

55.0 0.5 m Flood Contours

Site Boundary

TUFLOW Model Boundary

N

0 400

metres

Scale 1:10,000 @ A3

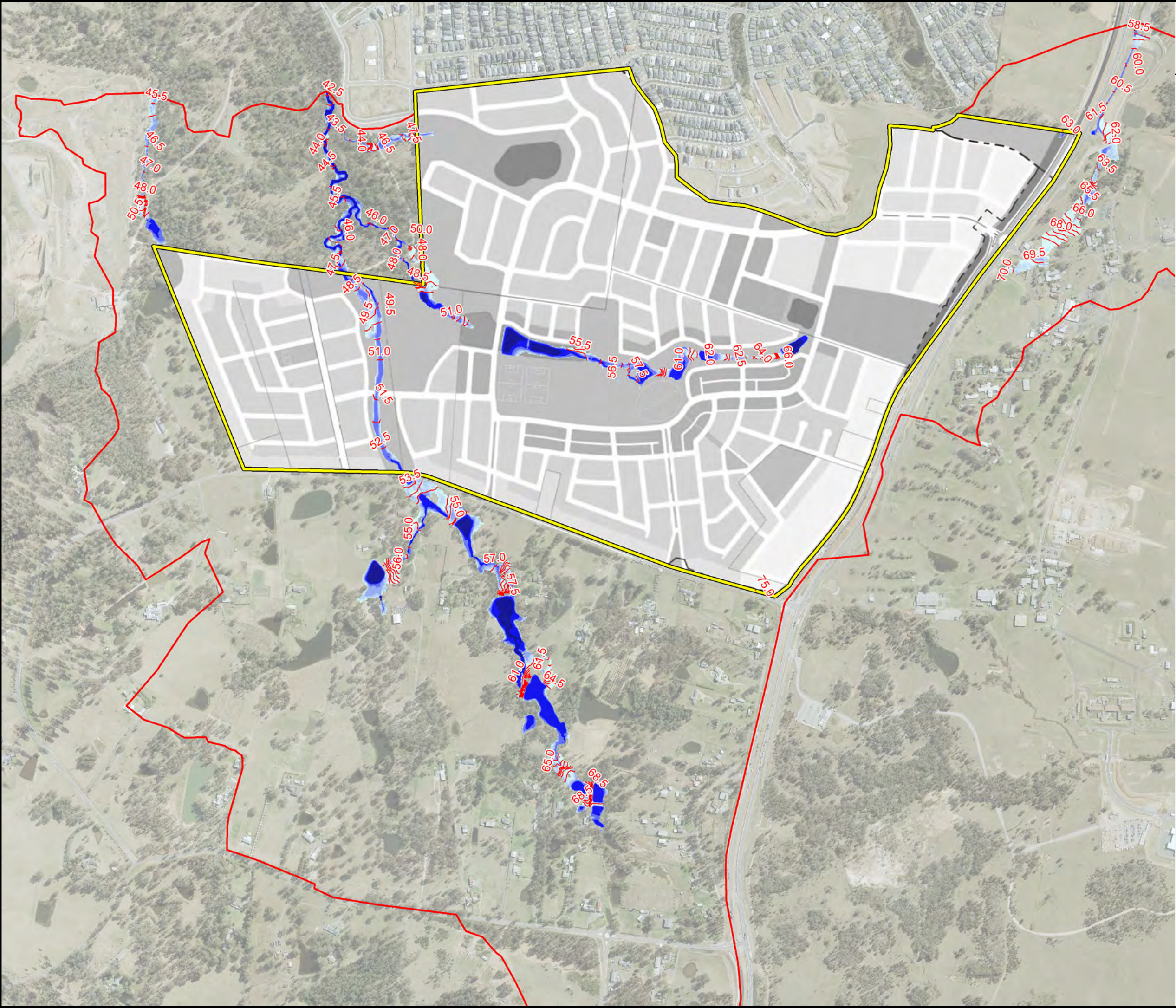
Projection: GDA 1994 MGA Zone 56

**Figure 6-5**  
**Glenmore Park Stage 3**

**20% AEP**  
**Existing Conditions**  
**Flood Depths and Levels**

Date: 13/04/2022 Issue: C





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**LEGEND**

**FLOOD DEPTH (m)**

	0.0 to 0.1
	0.1 to 0.2
	0.2 to 0.3
	0.3 to 0.5
	0.5 to 1.0
	1.0 to 2.0
	2.0 +

55.0 0.5 m Flood Contours

Site Boundary

TUFLOW Model Boundary

N

0 400  
metres  
Scale 1:10,000 @ A3

Projection: GDA 1994 MGA Zone 56

**Figure 6-6**  
**Glenmore Park Stage 3**

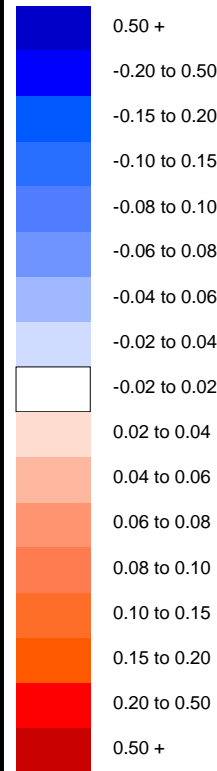
**20% AEP  
Developed Conditions  
Flood Depths and Levels**

Date: 13/04/2022 Issue: C



**LEGEND**

**FLOOD DIFFERENCE (m)**

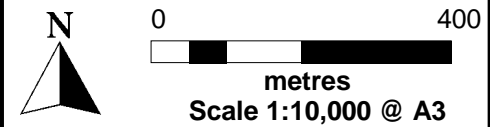


Areas that were flood affected and are now flood free in modelled event

Areas that were flood free and are now flood affected in modelled event

Site Boundary

TUFLOW Model Boundary



Projection: GDA 1994 MGA Zone 56

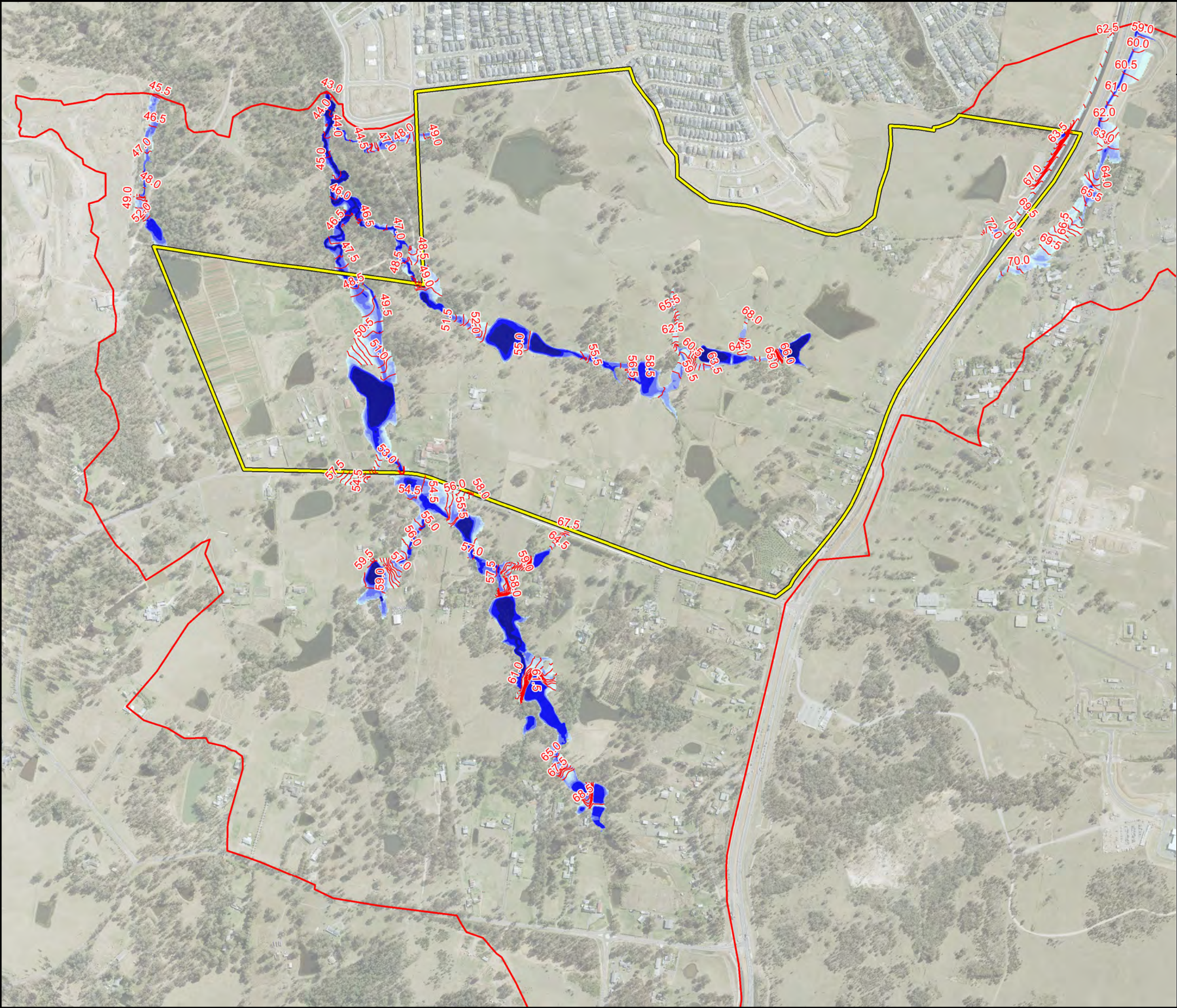
**Figure 6-7**  
**Glenmore Park Stage 3**

**20% AEP**  
**Developed - Existing**  
**Flood Difference**

Date: 13/04/2022

Issue: C





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& PROJECT MANAGERS

**LEGEND**  
**FLOOD DEPTH (m)**

	0.0 to 0.1
	0.1 to 0.2
	0.2 to 0.3
	0.3 to 0.5
	0.5 to 1.0
	1.0 to 2.0
	2.0 +

	55.0	0.5 m Flood Contours
		Site Boundary
		TUFLOW Model Boundary

0

metres

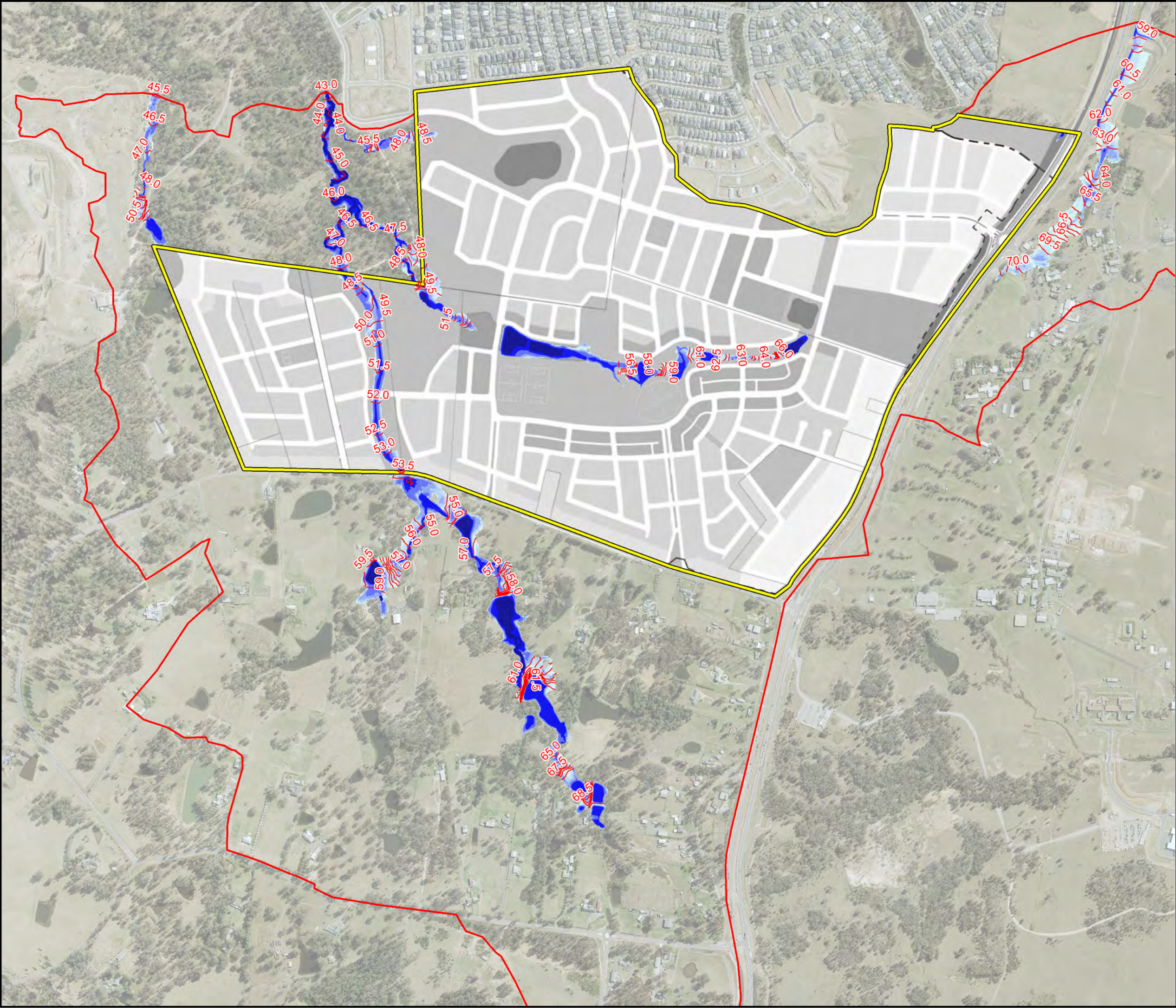
400

Scale 1:10,000 @ A3

Projection: GDA 1994 MGA Zone 56

**Figure 6-8**  
**Glenmore Park Stage 3**  
  
1% AEP  
Existing Conditions  
Flood Depths and Levels  
  
Date: 13/04/2022  
Issue: C





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& PROJECT MANAGERS

**LEGEND**

**FLOOD DEPTH (m)**

	0.0 to 0.1
	0.1 to 0.2
	0.2 to 0.3
	0.3 to 0.5
	0.5 to 1.0
	1.0 to 2.0
	2.0 +

55.0 0.5 m Flood Contours

Site Boundary

TUFLOW Model Boundary

N

0 400  
metres  
Scale 1:10,000 @ A3

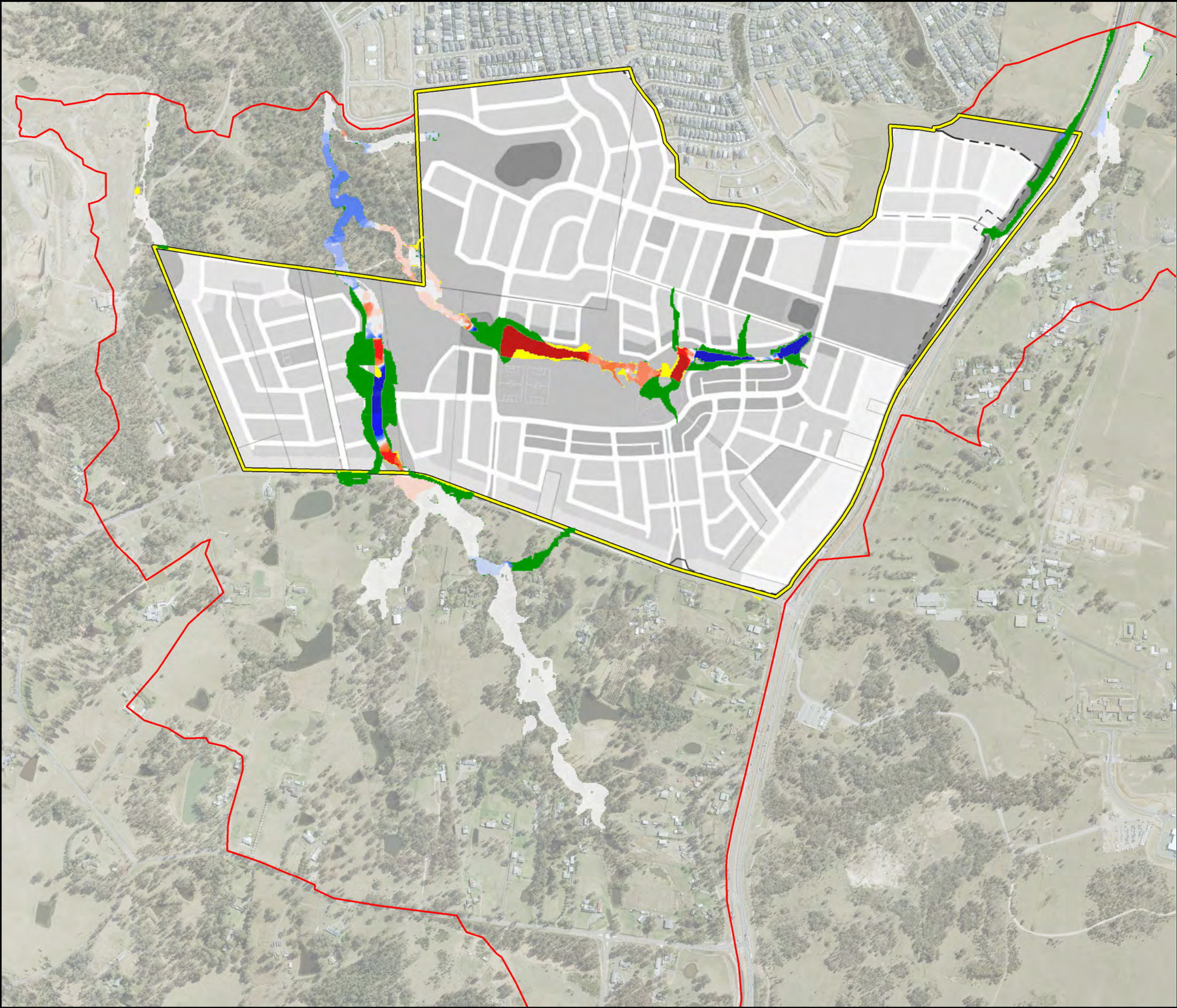
Projection: GDA 1994 MGA Zone 56

**Figure 6-9**  
**Glenmore Park Stage 3**

**1% AEP  
Developed Conditions  
Flood Depths and Levels**

Date: 13/04/2022 Issue: C





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**LEGEND**  
**FLOOD DIFFERENCE (m)**

0.50 +
-0.20 to 0.50
-0.15 to 0.20
-0.10 to 0.15
-0.08 to 0.10
-0.06 to 0.08
-0.04 to 0.06
-0.02 to 0.04
-0.02 to 0.02
0.02 to 0.04
0.04 to 0.06
0.06 to 0.08
0.08 to 0.10
0.10 to 0.15
0.15 to 0.20
0.20 to 0.50
0.50 +

Areas that were flood affected and are now flood free in modelled event

Areas that were flood free and are now flood affected in modelled event

Site Boundary

TUFLOW Model Boundary

N

0 400

metres

Scale 1:10,000 @ A3

Projection: GDA 1994 MGA Zone 56

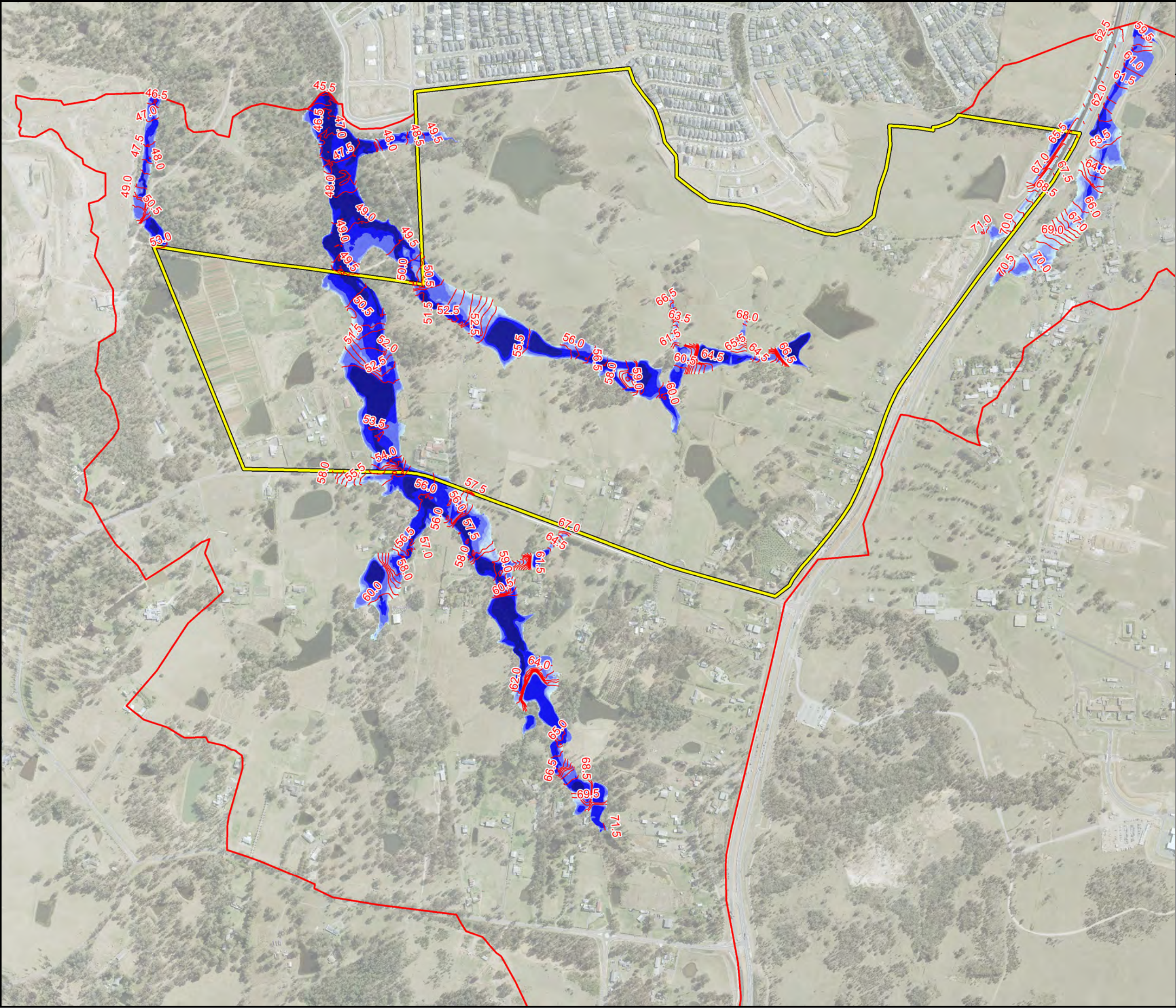
**Figure 6-10**  
**Glenmore Park Stage 3**

**1% AEP**  
**Developed - Existing**  
**Flood Difference**

Date: 13/04/2022

Issue: C





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**LEGEND**

**FLOOD DEPTH (m)**

	0.0 to 0.1
	0.1 to 0.2
	0.2 to 0.3
	0.3 to 0.5
	0.5 to 1.0
	1.0 to 2.0
	2.0 +

55.0 0.5 m Flood Contours

Site Boundary

TUFLOW Model Boundary

N

0 400  
metres  
Scale 1:10,000 @ A3

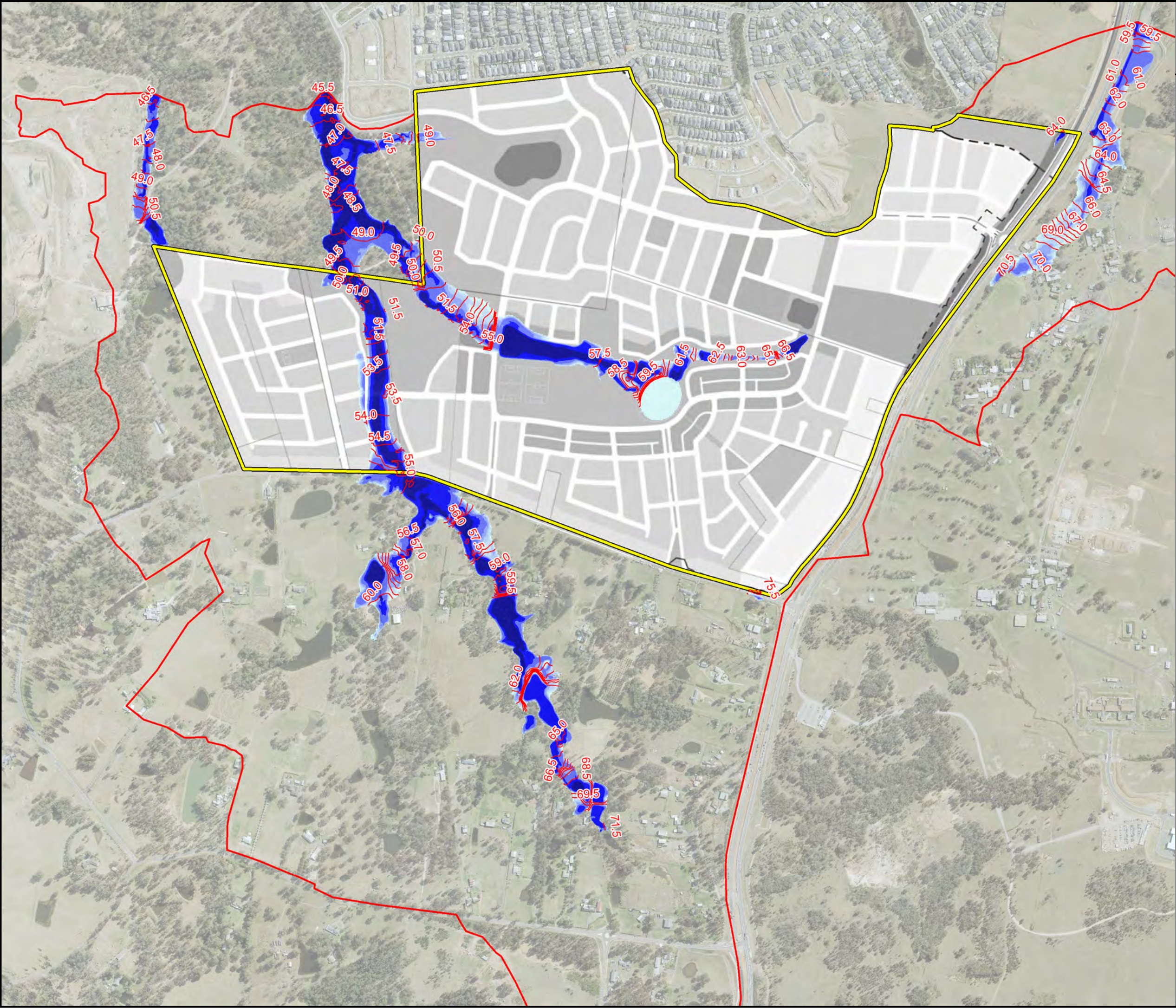
Projection: GDA 1994 MGA Zone 56

**Figure 6-11**  
**Glenmore Park Stage 3**

**PMF**  
**Existing Conditions**  
**Flood Depths and Levels**

Date: 13/04/2022 Issue: C





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& PROJECT MANAGERS

**LEGEND**  
**FLOOD DEPTH (m)**

	0.0 to 0.1
	0.1 to 0.2
	0.2 to 0.3
	0.3 to 0.5
	0.5 to 1.0
	1.0 to 2.0
	2.0 +

	55.0	0.5 m Flood Contours
		Site Boundary
		TUFLOW Model Boundary

N

0 400  
metres  
Scale 1:10,000 @ A3

Projection: GDA 1994 MGA Zone 56

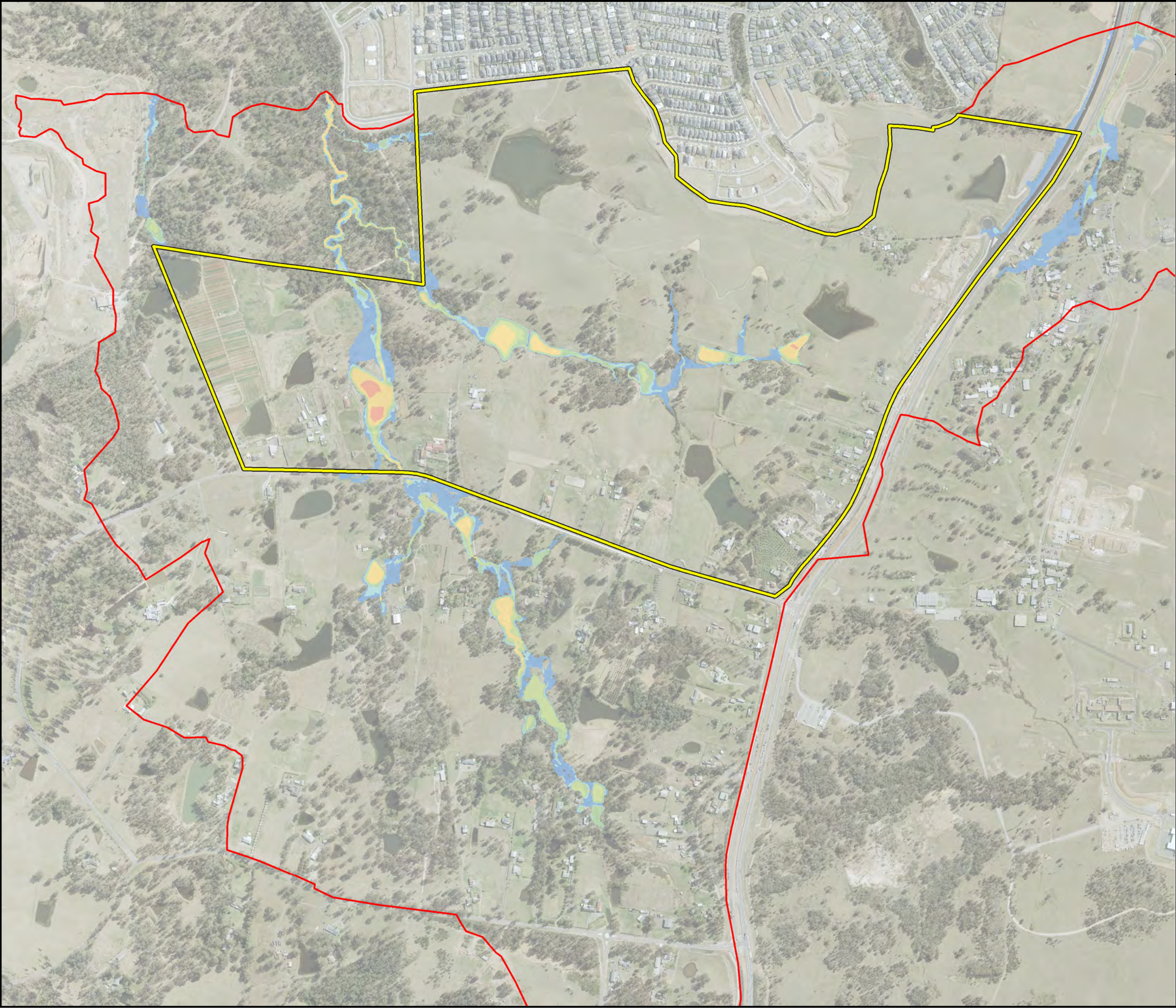
**Figure 6-12**  
**Glenmore Park Stage 3**

**PMF**  
**Developed Conditions**  
**Flood Depths and Levels**

Date: 13/04/2022 Issue: C



Filename: J:\110474 - Mulgoa Planning Proposal\02-SWMS\MapInfo\Figures\Report C\110474-02\_Fig6-13\_EX04\_20pc\_HAZ\_C.wor



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LEGEND

FLOOD HAZARD

H1 - Generally safe.

H2 - Unsafe for small vehicles.

H3 - Unsafe for vehicles, children and the elderly.

H4- Unsafe for people and vehicles.

H5 - Unsafe for vehicles and people. All buildings vulnerable to structural damage.

H6 - Unsafe for vehicles and people. All buildings vulnerable to failure.

Site Boundary

TUFLOW Model Boundary

N

0

400

metres

Scale 1:10,000 @ A3

Projection: GDA 1994 MGA Zone 56

Figure 6-13

Glenmore Park Stage 3

20% AEP

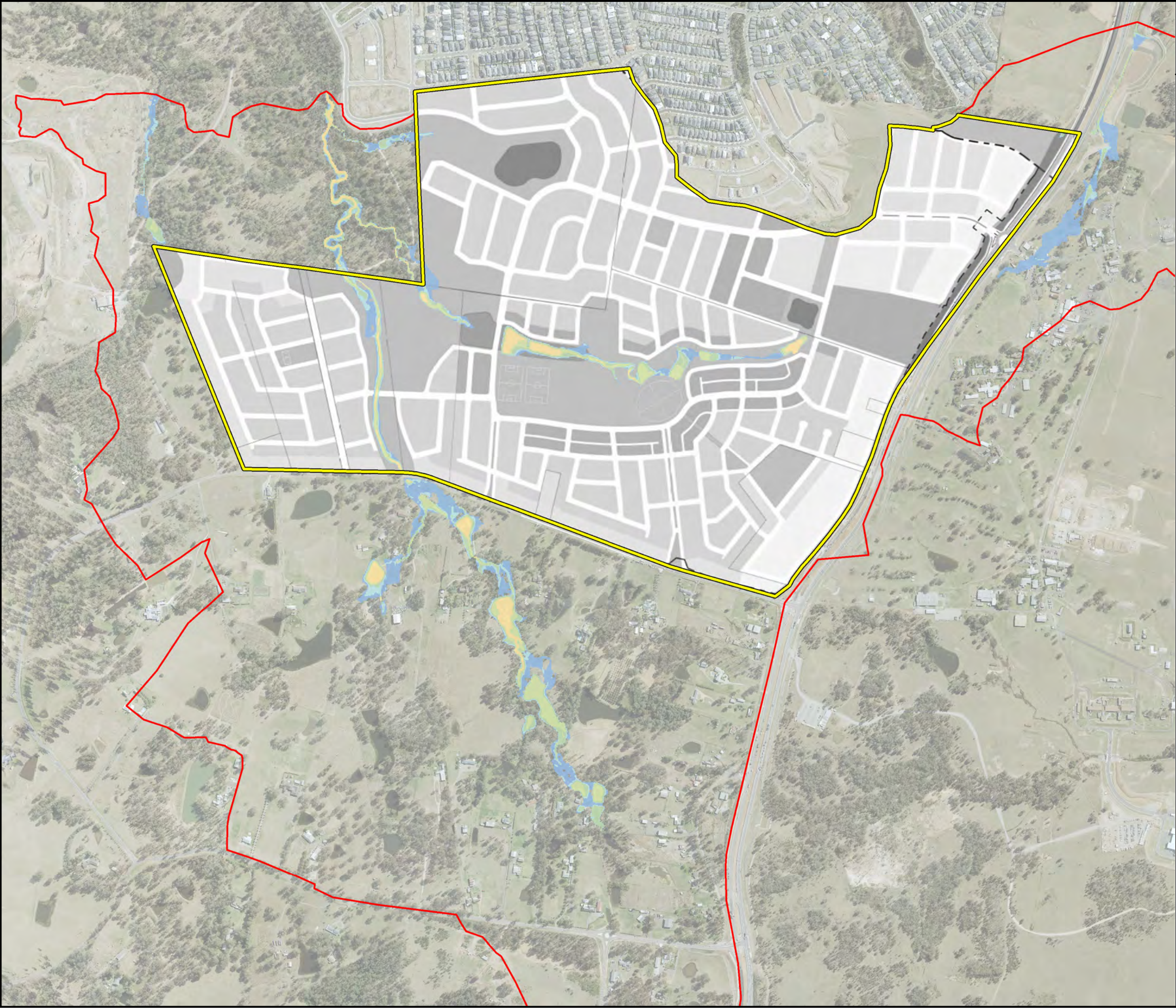
Existing Conditions

Flood Hazard

Date: 13/04/2022

Issue: C





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**LEGEND**

**FLOOD HAZARD**

- H1 - Generally safe.
- H2 - Unsafe for small vehicles.
- H3 - Unsafe for vehicles, children and the elderly.
- H4 - Unsafe for people and vehicles.
- H5 - Unsafe for vehicles and people. All buildings vulnerable to structural damage.
- H6 - Unsafe for vehicles and people. All buildings vulnerable to failure.

- Site Boundary
- TUFLOW Model Boundary

**Figure 6-14**  
**Glenmore Park Stage 3**

**20% AEP  
Developed Conditions  
Flood Hazard**

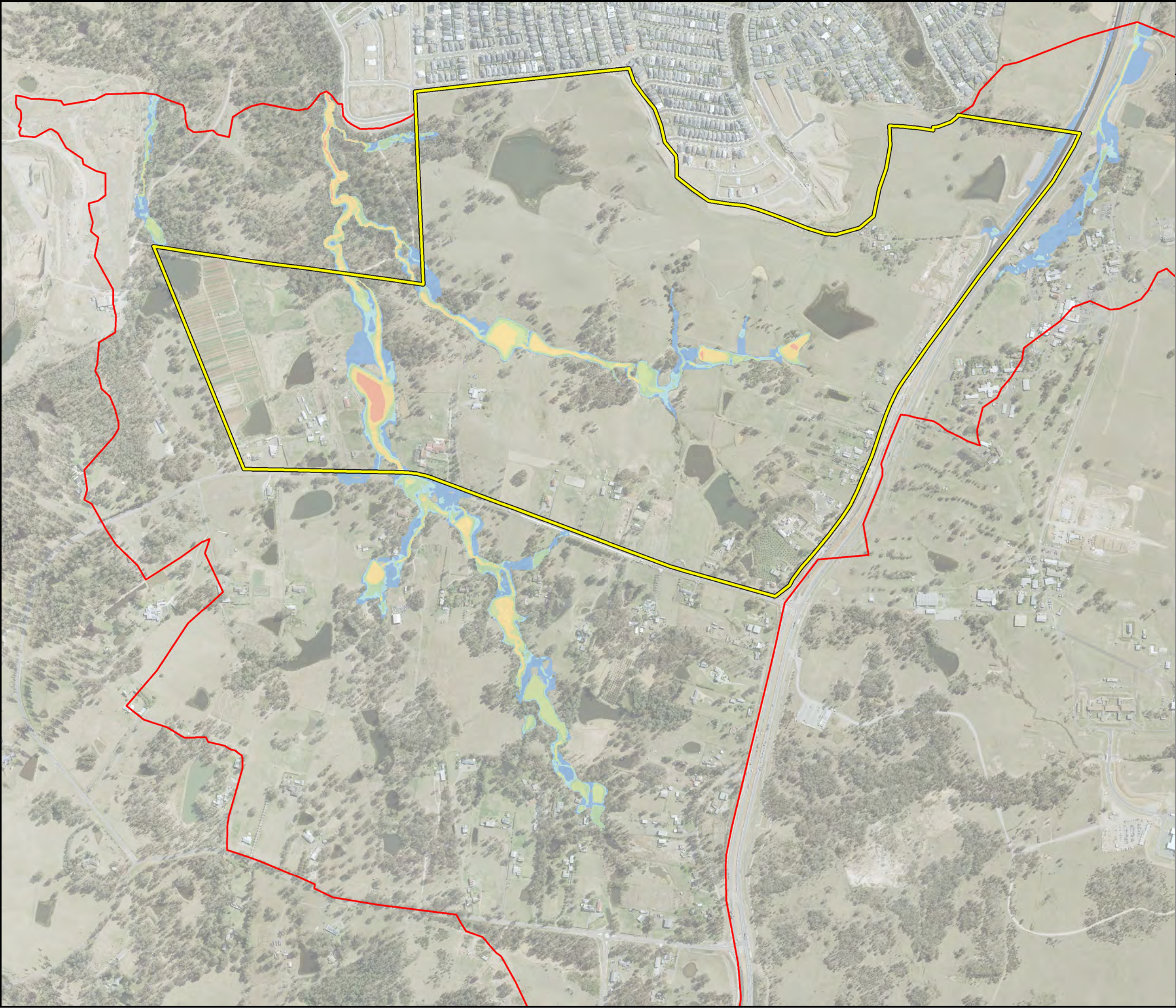
Date: 13/04/2022 Issue: C

0 400  
metres  
Scale 1:10,000 @ A3

Projection: GDA 1994 MGA Zone 56



Filename: J:\110474 - Mulgoa Planning Proposal\02-SWMS\MapInfo\Figures\Report C\110474-02\_Fig6-15\_EX04\_1pc\_HAZ\_C.wor



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**LEGEND**  
**FLOOD HAZARD**  

H1 - Generally safe.  
 H2 - Unsafe for small vehicles.  
 H3 - Unsafe for vehicles, children and the elderly.  
 H4- Unsafe for people and vehicles.  
 H5 - Unsafe for vehicles and people. All buildings vulnerable to structural damage.  
 H6 - Unsafe for vehicles and people. All buildings vulnerable to failure.  
 Site Boundary  
 TUFLOW Model Boundary

N

0400

metres

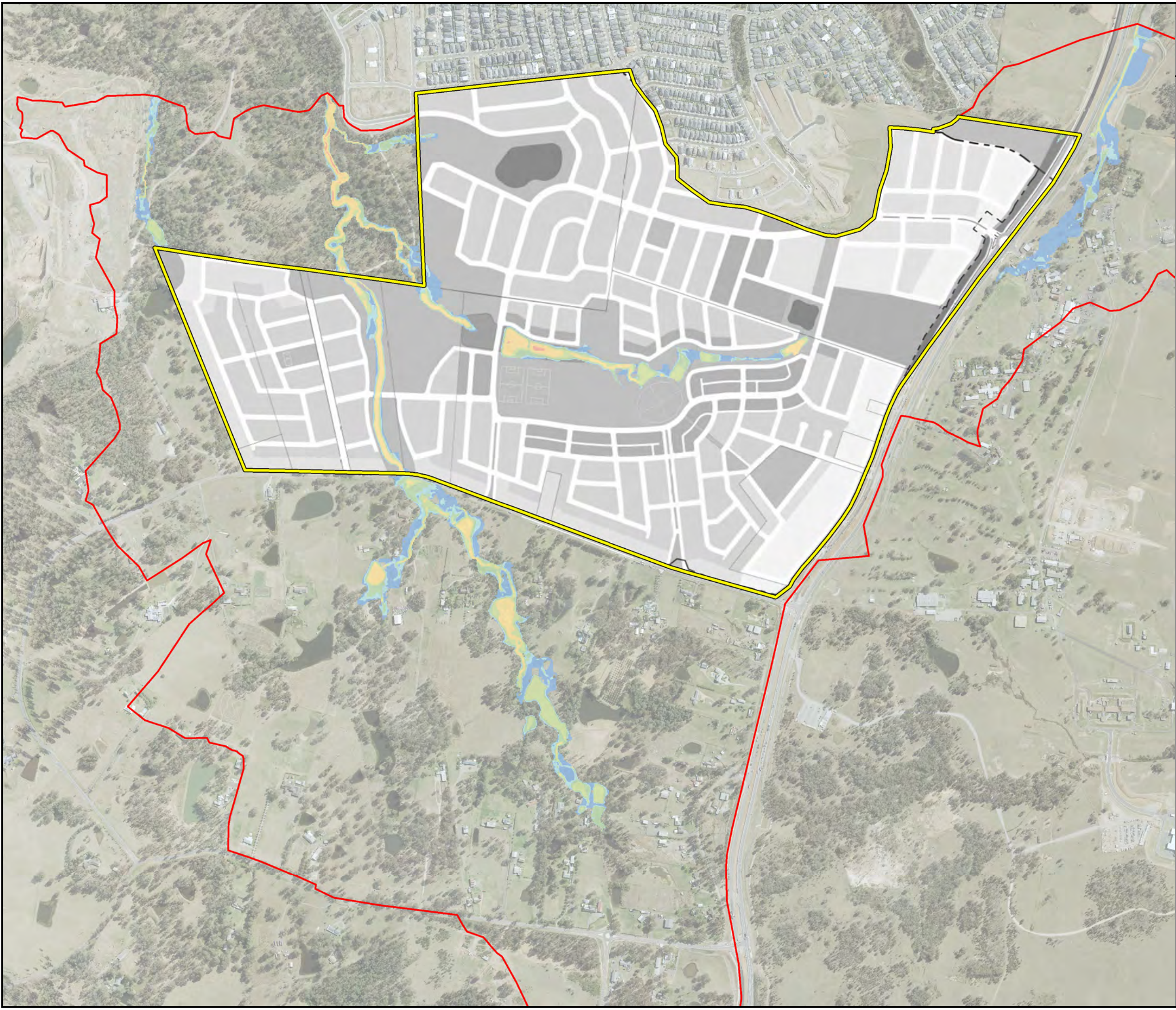
Scale 1:10,000 @ A3

Projection: GDA 1994 MGA Zone 56

**Figure 6-15**  
**Glenmore Park Stage 3**  
  
**1% AEP**  
**Existing Conditions**  
**Flood Hazard**  
  
Date: 13/04/2022  
Issue: C



Filename: J:\110474 - Mulgoa Planning Proposal\02-SWMS\MapInfo\Figures\Report C\110474-02\_Fig6-16\_DEV03\_1pc\_HAZ\_C.wor



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**LEGEND**  
**FLOOD HAZARD**  
H1 - Generally safe.  
H2 - Unsafe for small vehicles.  
H3 - Unsafe for vehicles, children and the elderly.  
H4- Unsafe for people and vehicles.  
H5 - Unsafe for vehicles and people. All buildings vulnerable to structural damage.  
H6 - Unsafe for vehicles and people. All buildings vulnerable to failure.  
Site Boundary  
TUFLOW Model Boundary

N

0400

metres

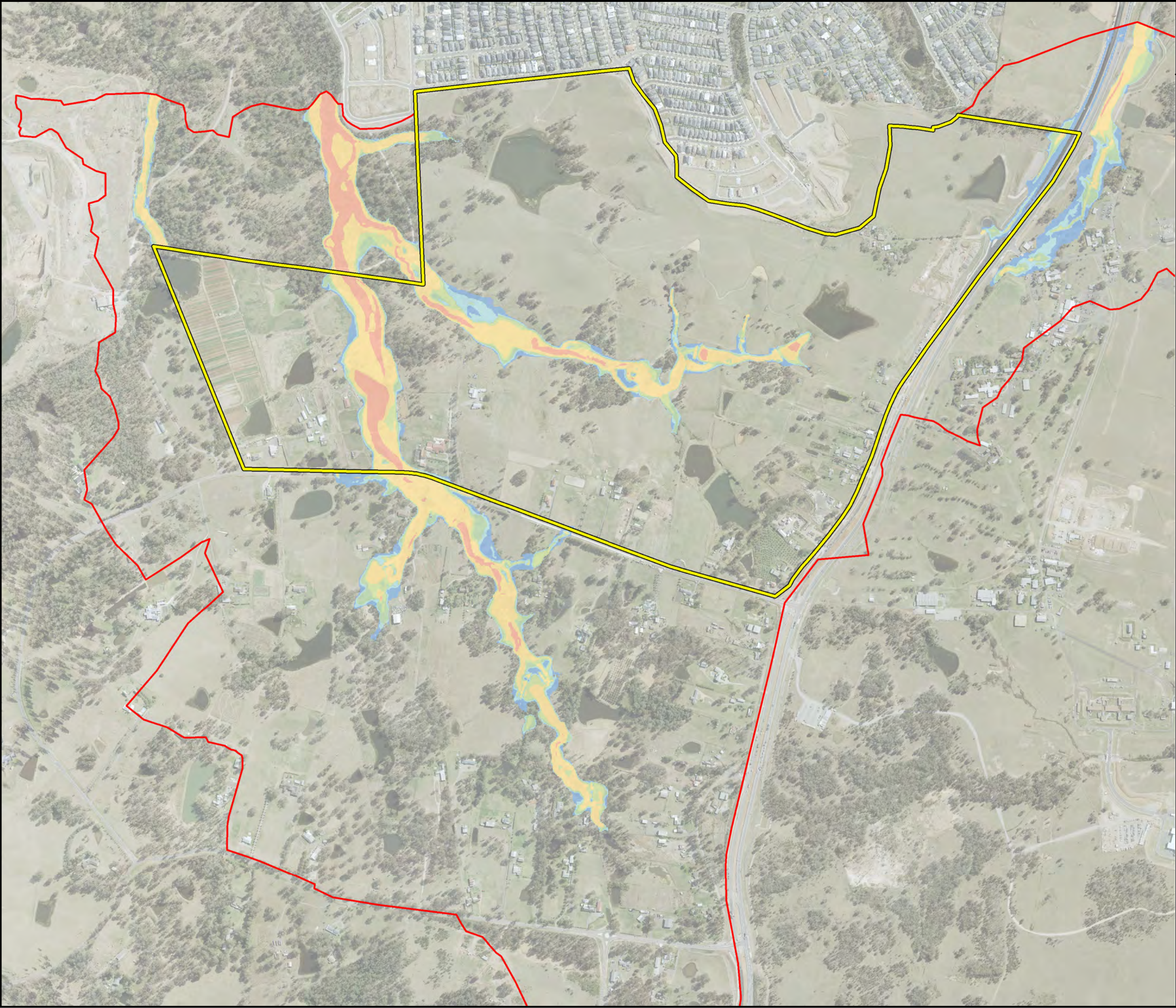
Scale 1:10,000 @ A3

Projection: GDA 1994 MGA Zone 56

**Figure 6-16**  
**Glenmore Park Stage 3**  
  
1% AEP  
Developed Conditions  
Flood Hazard  
  
Date: 13/04/2022  
Issue: C



Filename: J:\110474 - Mulgoa Planning Proposal\02-SWMS\MapInfo\Figures\Report C\110474-02\_Fig6-17\_EX04\_PMF\_HAZ\_C.wor



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& PROJECT MANAGERS

**LEGEND**  
**FLOOD HAZARD**  
H1 - Generally safe.  
H2 - Unsafe for small vehicles.  
H3 - Unsafe for vehicles, children and the elderly.  
H4- Unsafe for people and vehicles.  
H5 - Unsafe for vehicles and people. All buildings vulnerable to structural damage.  
H6 - Unsafe for vehicles and people. All buildings vulnerable to failure.  
Site Boundary  
TUFLOW Model Boundary

N

0400

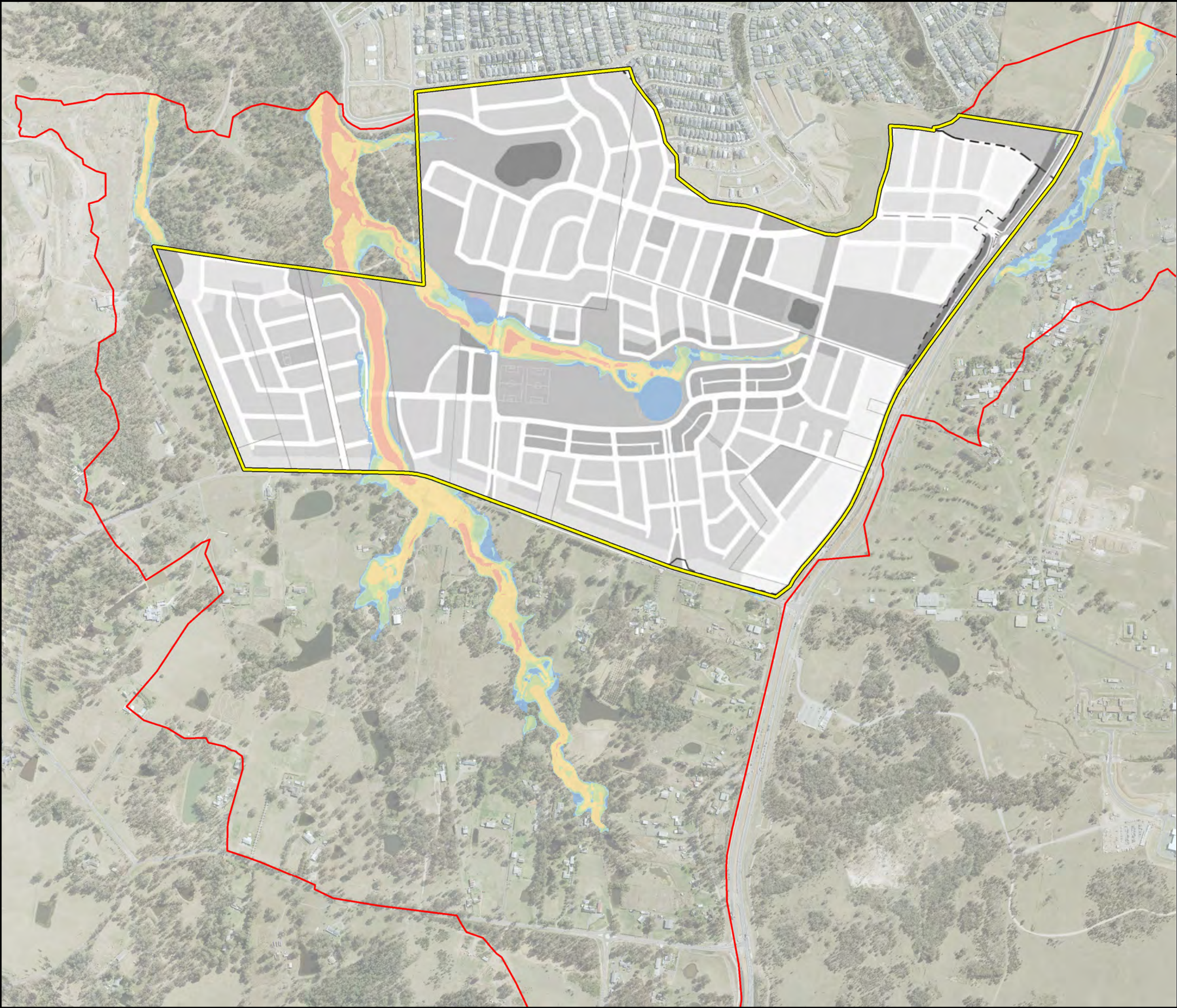
metres

Scale 1:10,000 @ A3

Projection: GDA 1994 MGA Zone 56

**Figure 6-17**  
**Glenmore Park Stage 3**  
  
PMF  
Existing Conditions  
Flood Hazard  
  
Date: 13/04/2022  
Issue: C





J. WYNDHAM PRINCE

CONSULTING CIVIL INFRASTRUCTURE ENGINEERS  
& PROJECT MANAGERS

LEGEND

FLOOD HAZARD

H1 - Generally safe.

H2 - Unsafe for small vehicles.

H3 - Unsafe for vehicles, children and the elderly.

H4- Unsafe for people and vehicles.

H5 - Unsafe for vehicles and people. All buildings vulnerable to structural damage.

H6 - Unsafe for vehicles and people. All buildings vulnerable to failure.

Site Boundary

TUFLOW Model Boundary

N

0400

metres

Scale 1:10,000 @ A3

Projection: GDA 1994 MGA Zone 56

Figure 6-18

Glenmore Park Stage 3

PMF

Developed Conditions

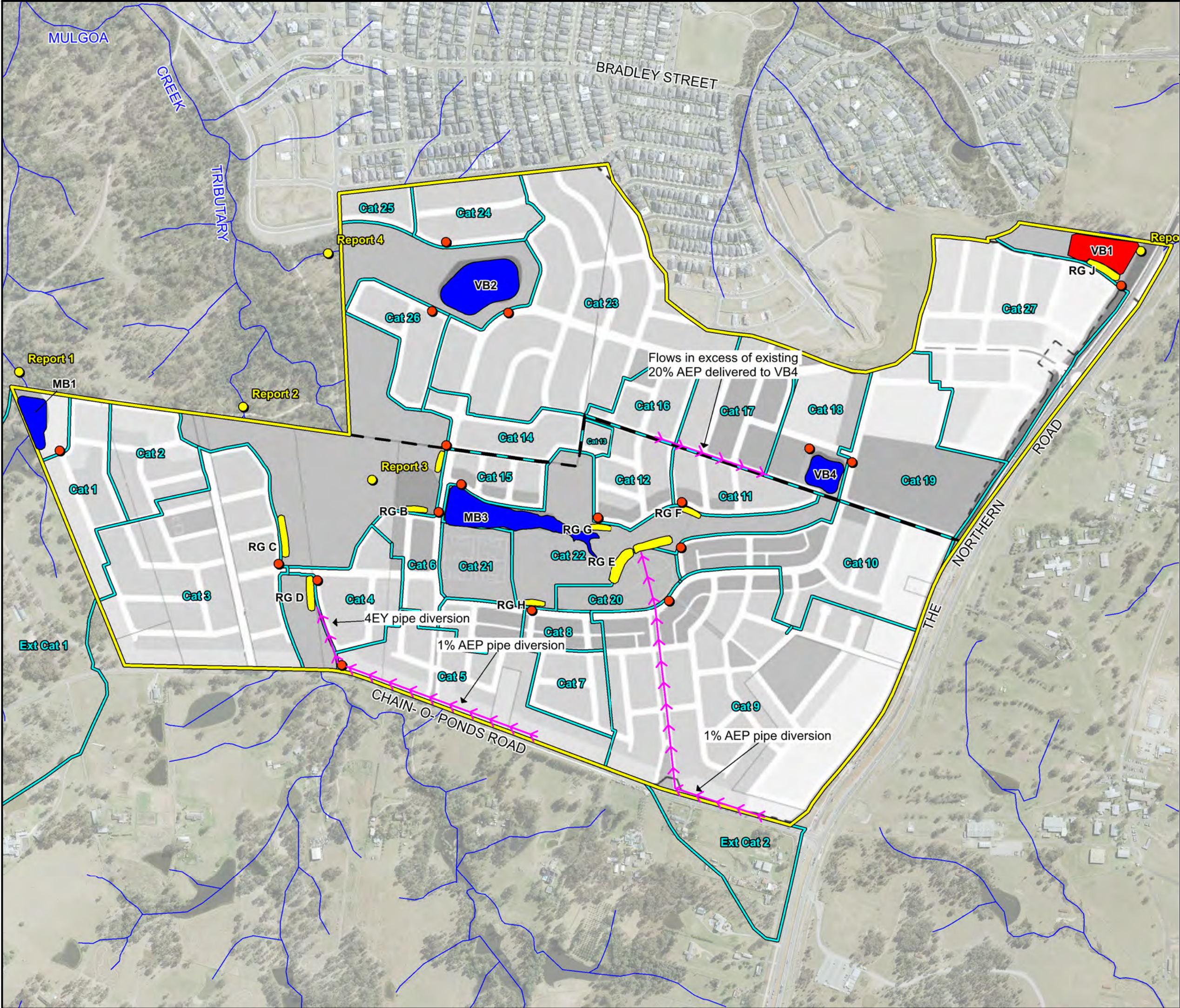
Flood Hazard

Date: 13/04/2022

Issue: C



Filename: "J:\110474 - Mulgoa Planning Proposal\02-SWMS\MapInfo\Figures\Report C\110474-02\_Fig7-1\_MUSIC Catchments\_C.WOR"



**J. WYNDHAM PRINCE**  
CONSULTING CIVIL INFRASTRUCTURE ENGINEERS  
& PROJECT MANAGERS

**LEGEND**

- Site Boundary
- MUSIC Catchments
- Indicative Pond
- Indicative Rain garden
- Drainage Diversion
- Indicative GPT Location
- Landholder Boundary
- MUSIC Reporting Locations

N

0 320

metres

Scale 1:8,000 @ A3

Projection: GDA 1994 MGA Zone 56

**Figure 7-1**

**Glenmore Park Stage 3**

**MUSIC Catchment Plan**

Date: 13/04/2022 Issue: C