



FIGURE 2.1
CATCHMENT AND
STUDY AREA

Berry FRMSP

-  Model Extent
-  Broughton Creek Catchment Area



0 1,000
 meters

Map Produced by Cardno NSW/ACT Pty Ltd
 Date: 23 September 2011
 Coordinate System: Zone 56/1 ISG
 GIS MAP REF:
 W4858_01_Figure_2-1_Catchment_Area.mxd 02

FIGURE 2.2
STUDY AREA FEATURES

Berry FRMSP



-  Model Extent
-  Berry Township
-  Princes Highway
-  Railway Line
-  Broughton Creek
-  Broughton Mill Cree
-  Bundewallah Creek
-  Town Creek

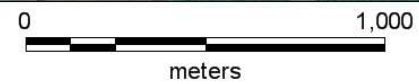
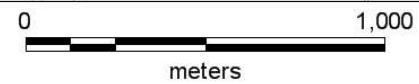


FIGURE 5.1
MODEL TOPOGRAPHY

Berry FRMSP

— Cadastre

LEGEND -
ELEVATION (m)

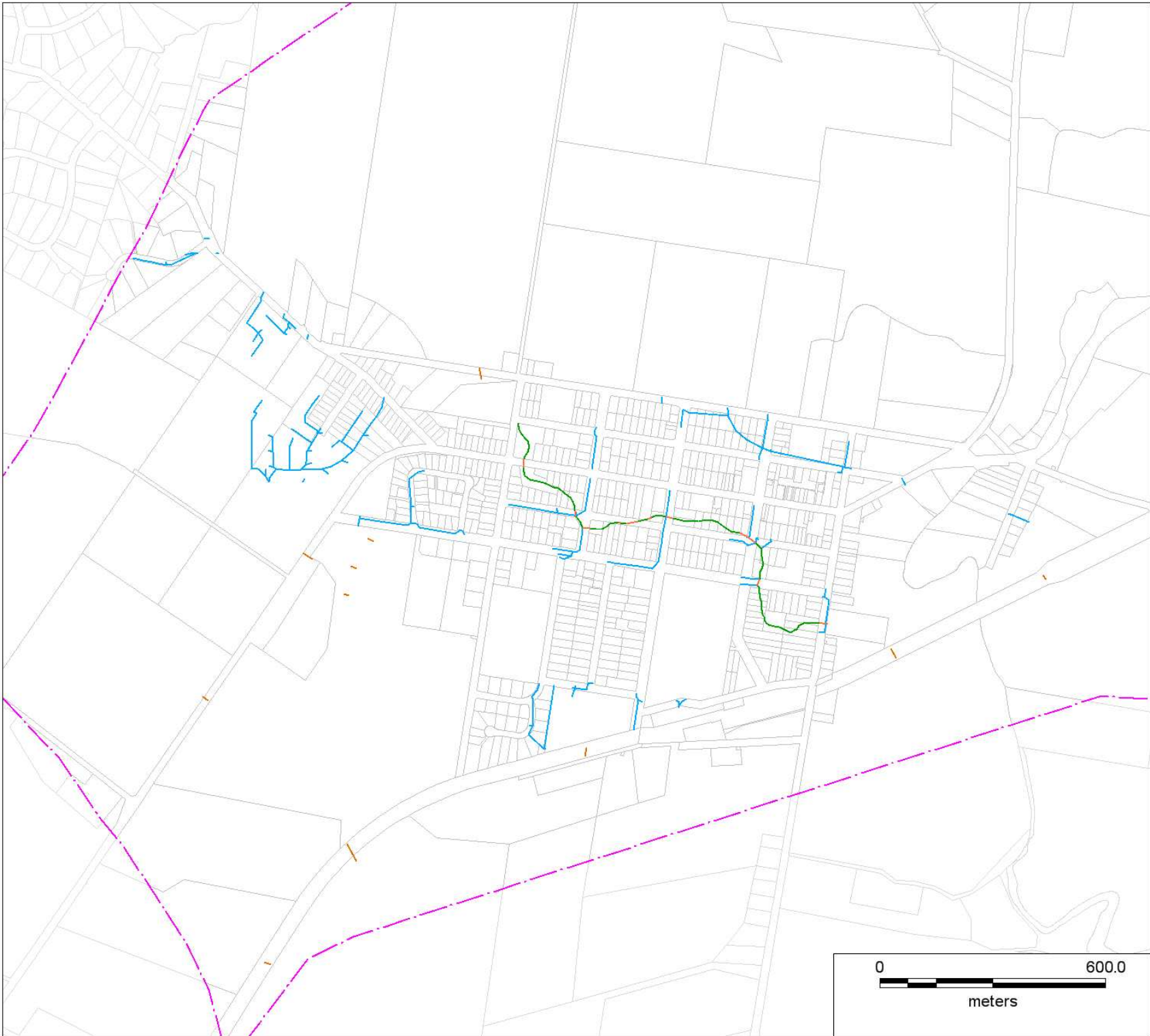


Map Produced by Cardno NSW/ACT Pty Ltd
Date: 8 September 2011
Coordinate System: Zone 56/1 ISG
GIS MAP REF:
W4858_01_Figure_5-1_Model_Topography.mxd 02

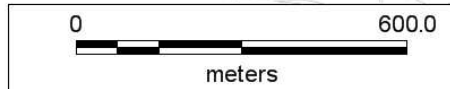
FIGURE 5.2

1D LAYOUT

Berry FRMSP



- Cadastre
- Open Channel
- Culvert
- Pipe
- Model Boundary








Map Produced by Cardno NSW/ACT Pty Ltd
Date: 8 September 2011
Coordinate System: Zone 56/1 ISG
GIS MAP REF:
W4858_01_Figure_5-2_1D_Layout.mxd 02

FIGURE 5.3
ROUGHNESS ZONES

Berry FRMSP

— Cadastre

Roughness Zones

-  Road
-  Low Residential
-  Medium Residential / Commercial
-  Low Density Vegetation
-  High Density Vegetation
-  Waterways



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Date: 22 August 2011
Coordinate System: Zone 56/1 ISG
GIS MAP REF:
W4858_01_Figure_5-3_Roughness_Zones.mxd 02

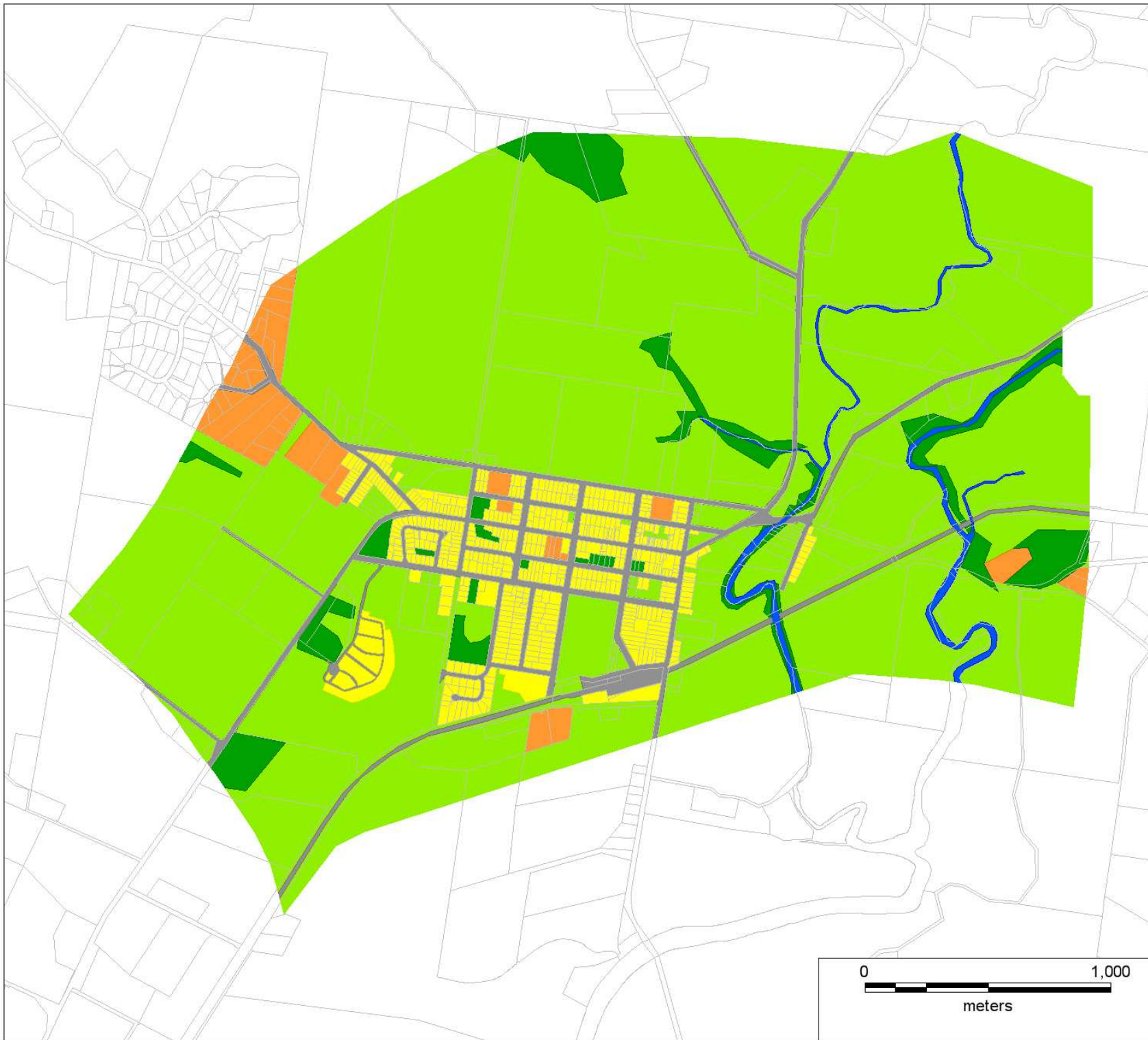


FIGURE 5.4
CHANGES TO
RAFTS MODEL

Berry FRMSP

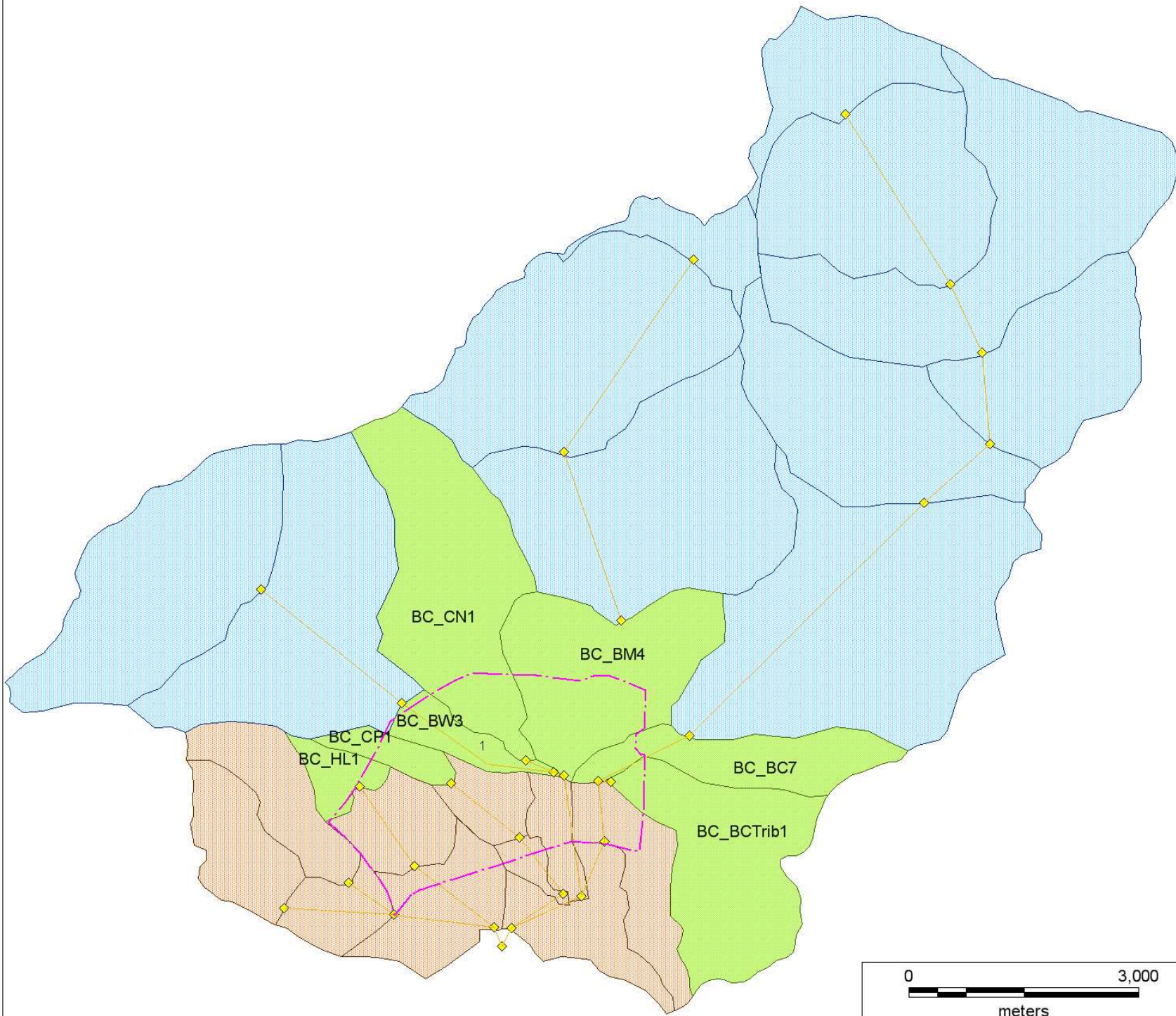
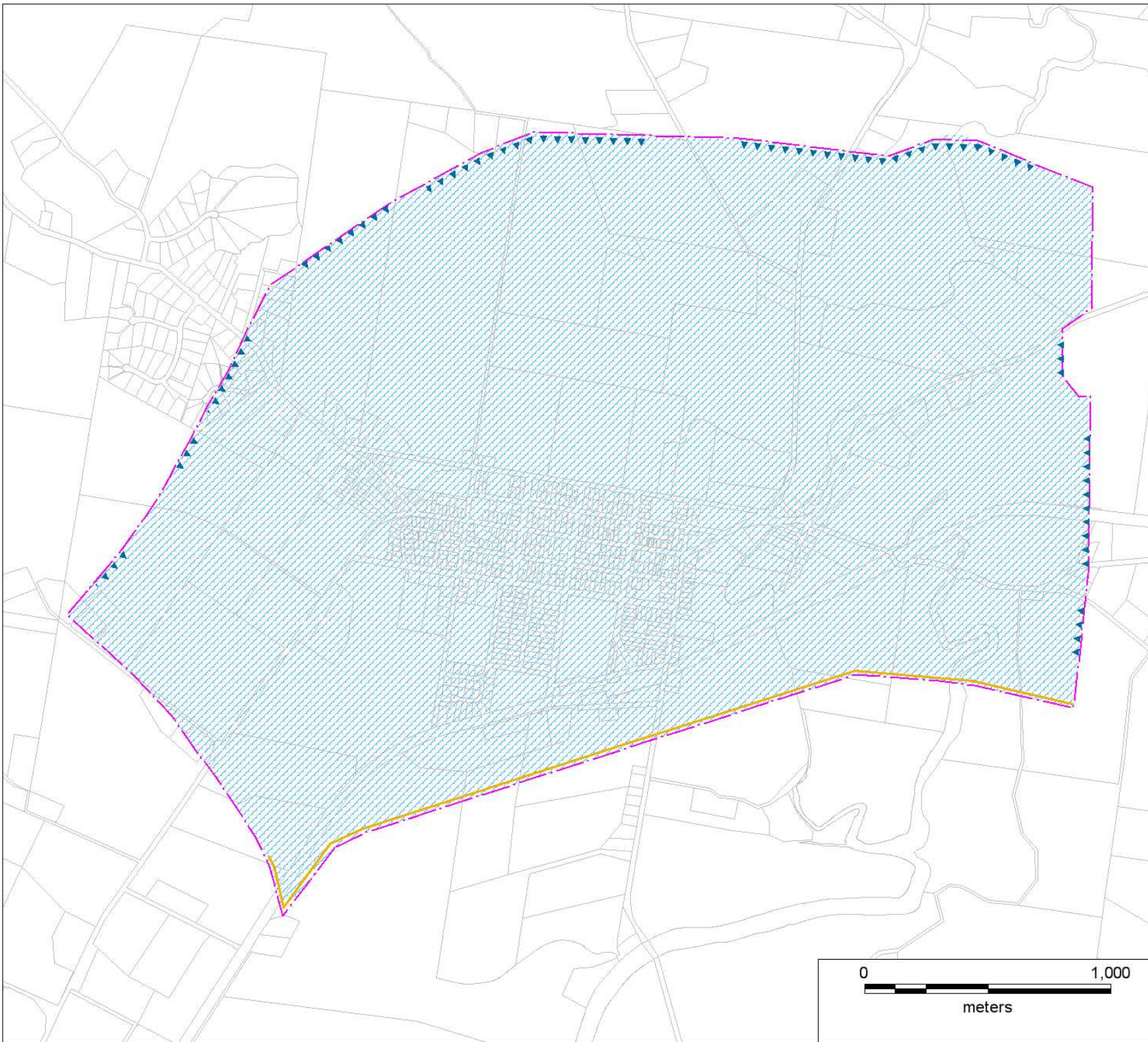
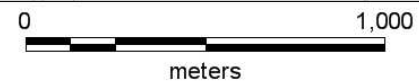


FIGURE 5.5 HYDROLOGY SCHEMATISATION

Berry FRMSP



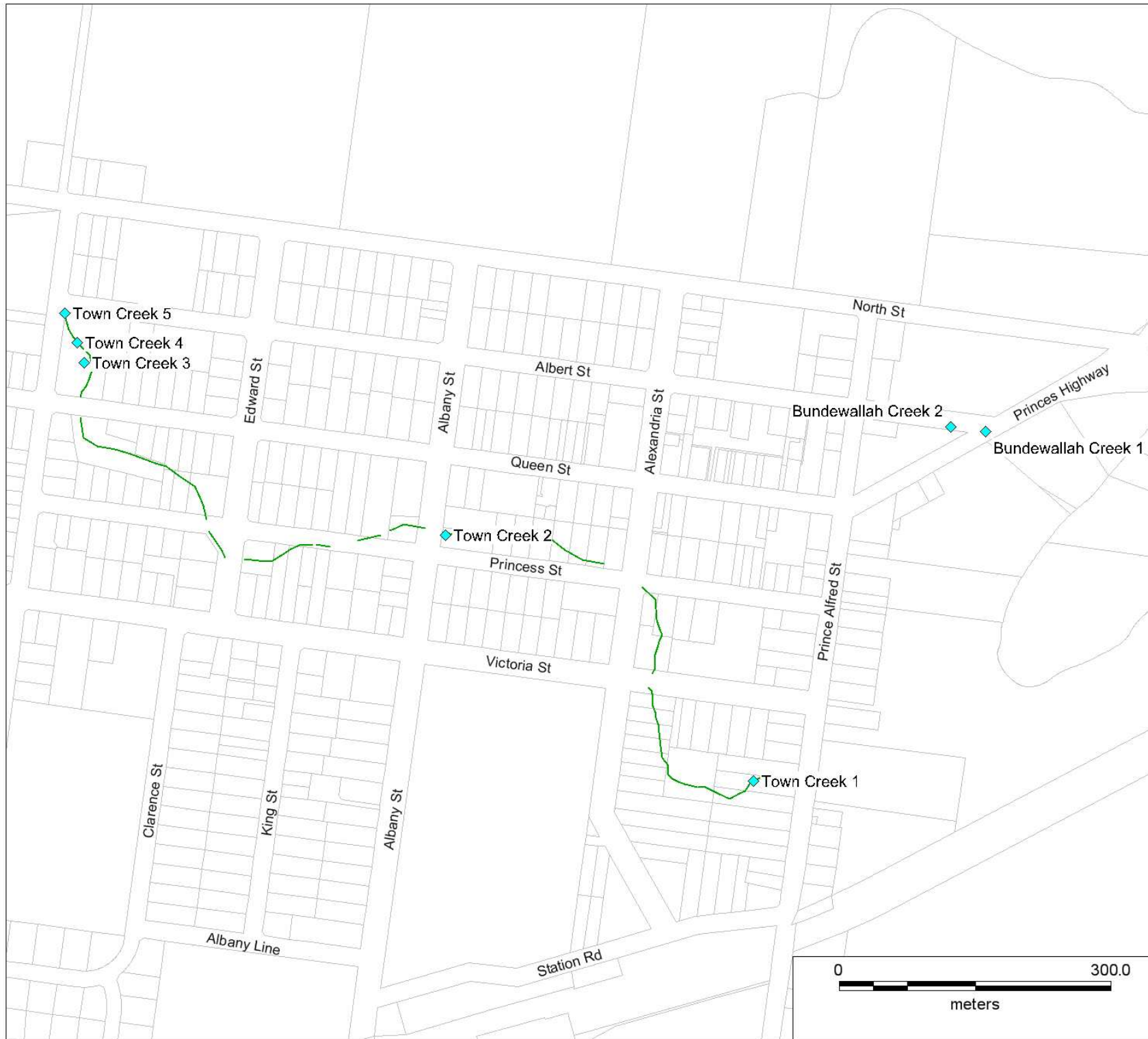
- Cadastre
- ▭ Model Boundary
- ▲▲▲ RAFTS Inflows
- ▨ Rainfall on Grid
- Downstream Boundary



Map Produced by Cardno NSW/ACT Pty Ltd
Date: 8 September 2011
Coordinate System: Zone 56/1 ISG
GIS MAP REF:
W4858_01_Figure_5-5_Hydrology.mxd 02

FIGURE 6.1
2002 CALIBRATION
LOCATIONS

Berry FRMSP



- Cadastre
- ◆ Calibration Location
- Town Creek

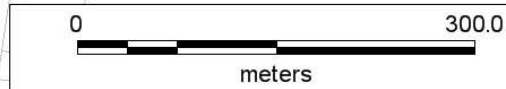


FIGURE 6.2
2005 CALIBRATION
LOCATIONS

Berry FRMSP

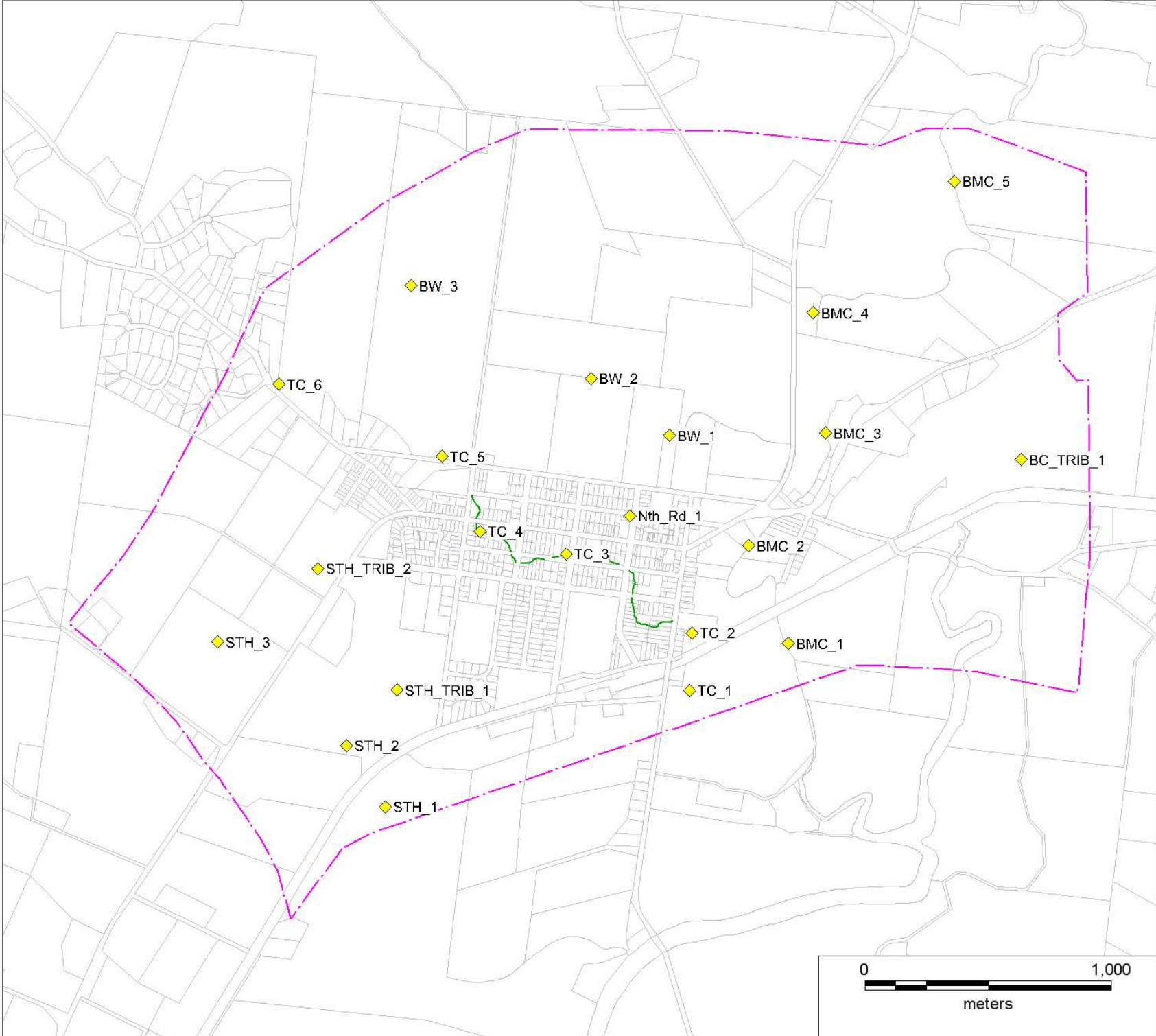






— Cadastre
 ◆ Calibration Location



FIGURE 6.3
1% AEP CALIBRATION
LOCATIONS

Berry FRMSP



-  Model Extent
-  Calibration Location
-  Town Creek
-  Cadastre

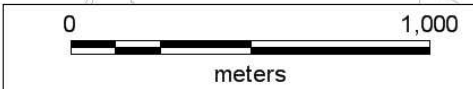
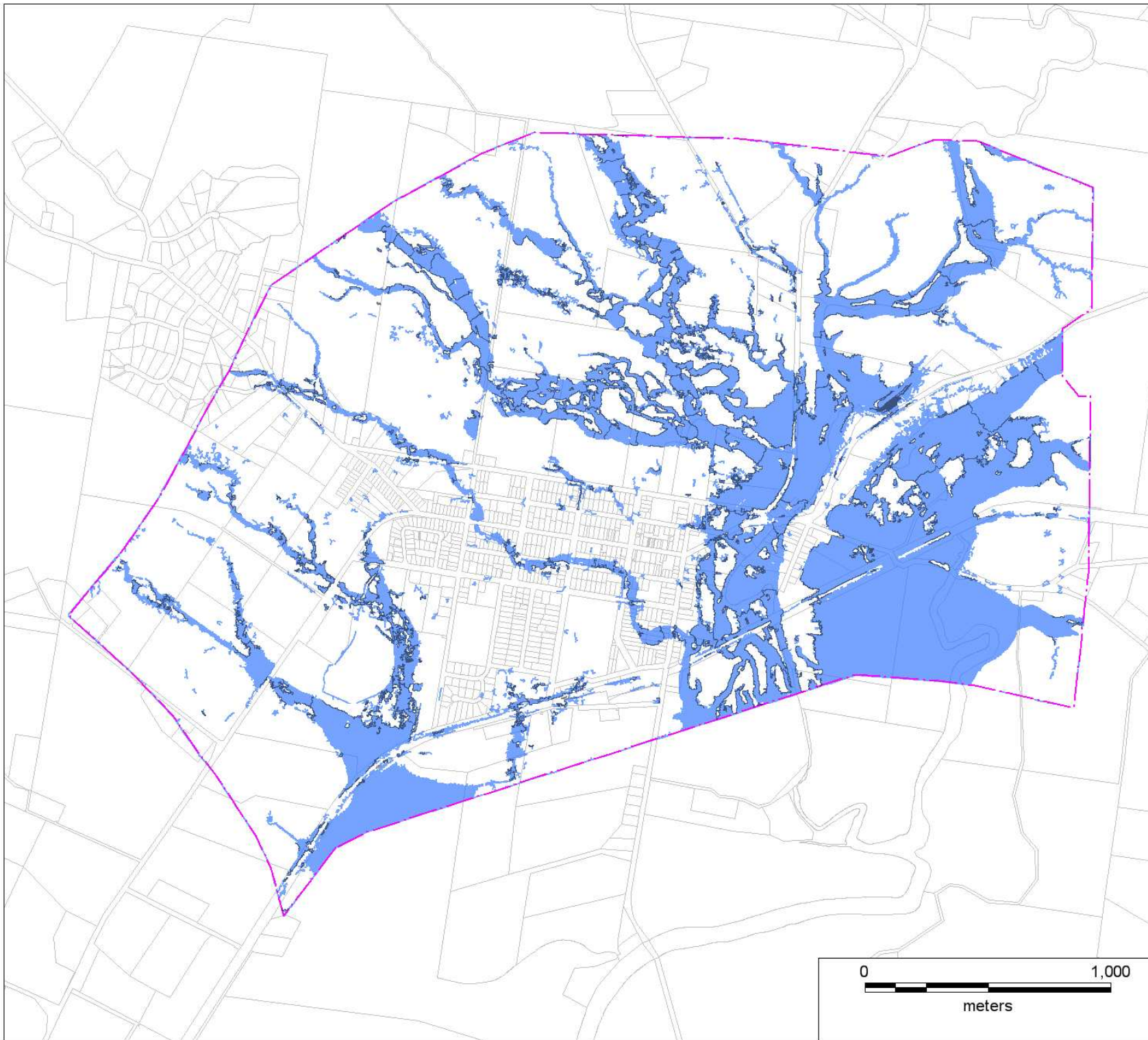





FIGURE 7.1

**50% AEP
FLOOD EXTENT**

Berry FRMSP



-  Model Extent
-  Flood Extent
-  Peak Water Level
Contours
1m Increments

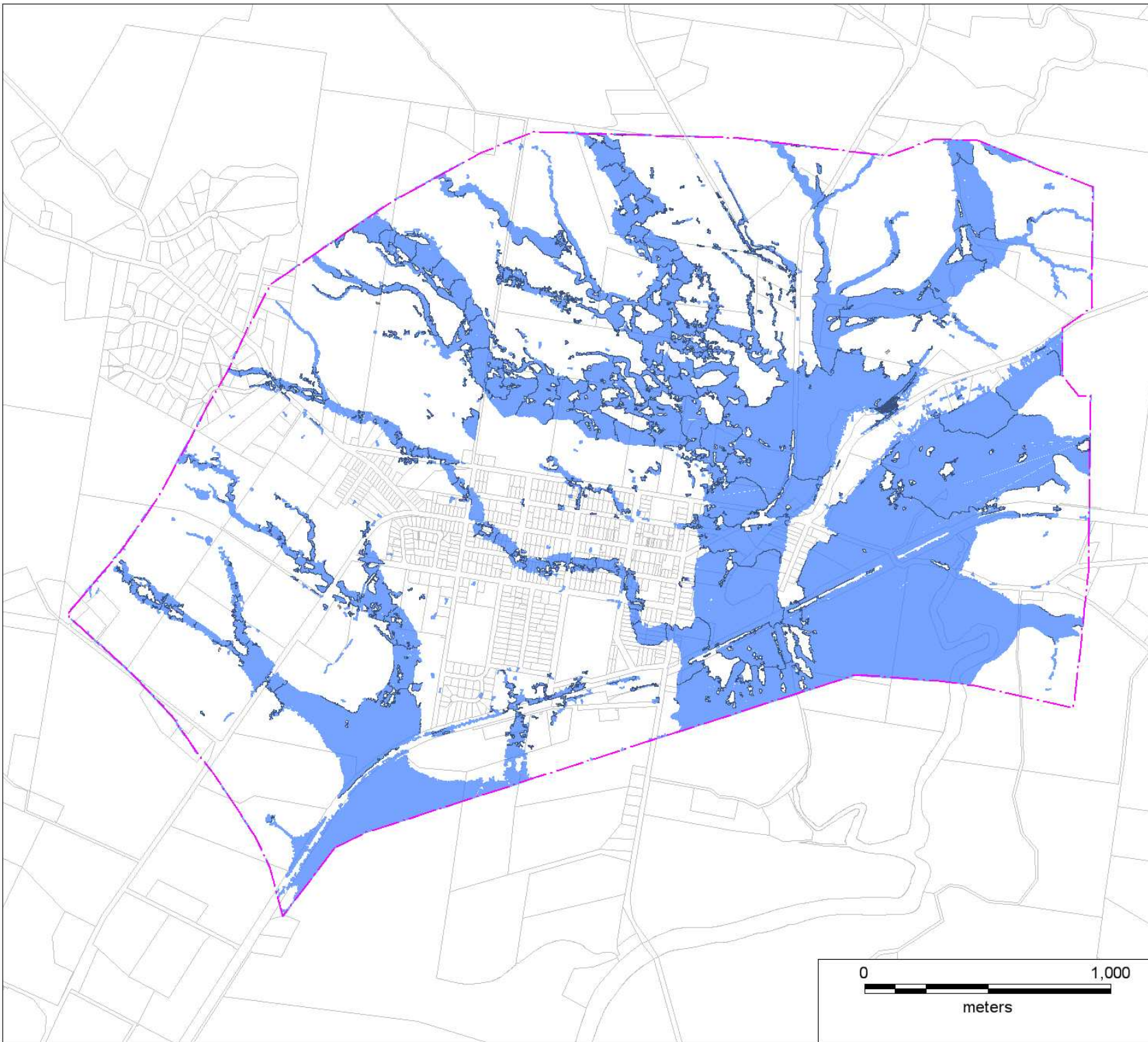





0 1,000
meters

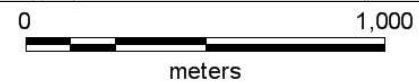
Map Produced by Cardno NSW/ACT Pty Ltd
Date: 8 September 2011
Coordinate System: Zone 56/1 ISG
GIS MAP REF:
W4858_01_Figure_7-1_2yr_Extent.mxd 02

FIGURE 7.2
20% AEP
FLOOD EXTENT

Berry FRMSP



-  Model Extent
-  Flood Extent
-  Peak Water Level Contours
1m Increments

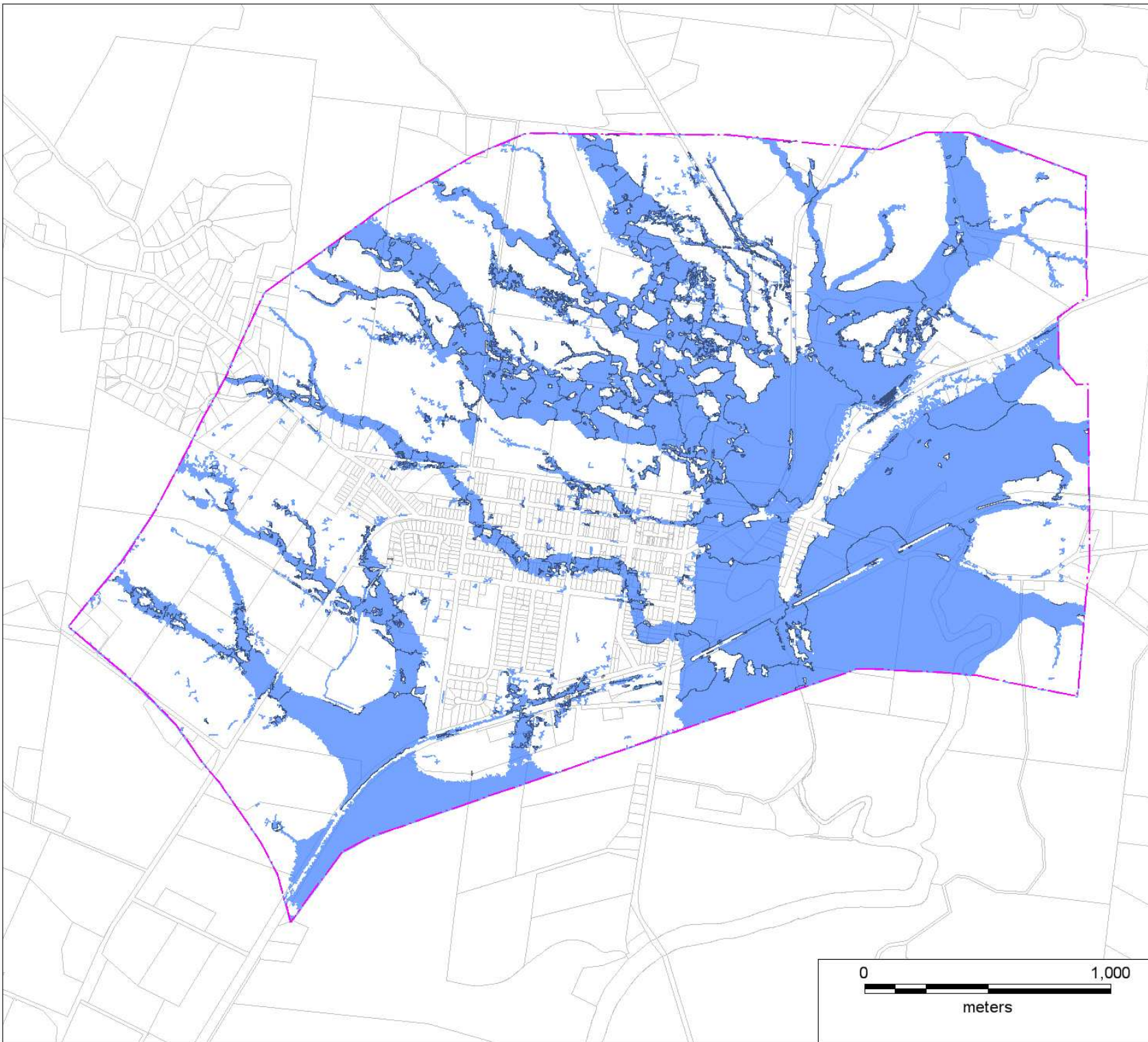





Map Produced by Cardno NSW/ACT Pty Ltd
Date: 8 September 2011
Coordinate System: Zone 56/1 ISG
GIS MAP REF:
W4858_D1_Figure_7-2_5yr_Extent.mxd 02

FIGURE 7.3

**10% AEP
FLOOD EXTENT**

Berry FRMSP



-  Model Extent
-  Flood Extent
-  Peak Water Level
Contours
1m Increments



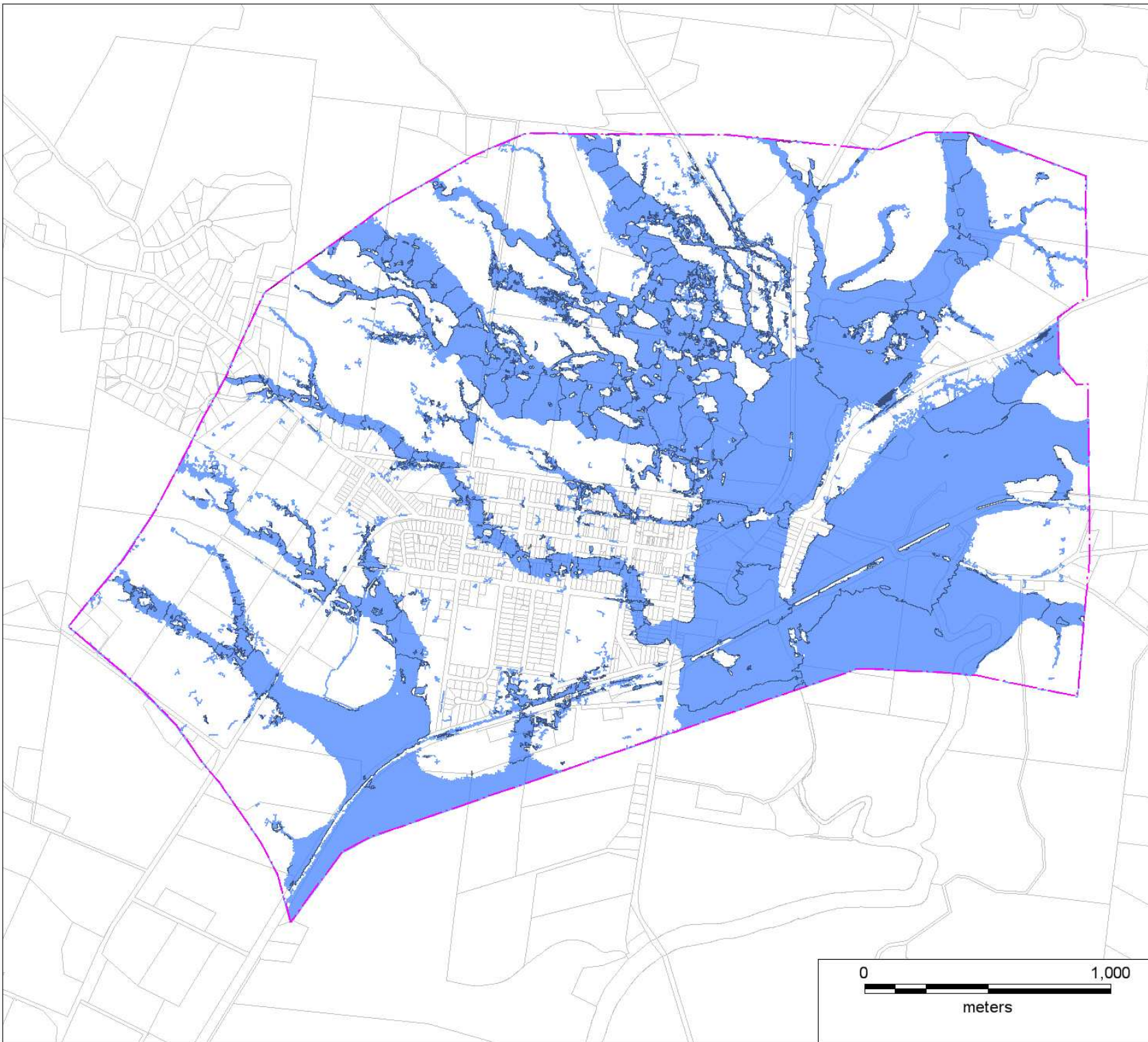
0 1,000
meters




Map Produced by Cardno NSWACT Pty Ltd
Date: 6 September 2011
Coordinate System: Zone 56/1 ISG
GIS MAP REF:
W4858_01_Figure_7-3_10yr_Extent.mxd 01

FIGURE 7.4

**5% AEP
FLOOD EXTENT**

Berry FRMSP



-  Model Extent
-  Flood Extent
-  Peak Water Level
Contours
1m Increments

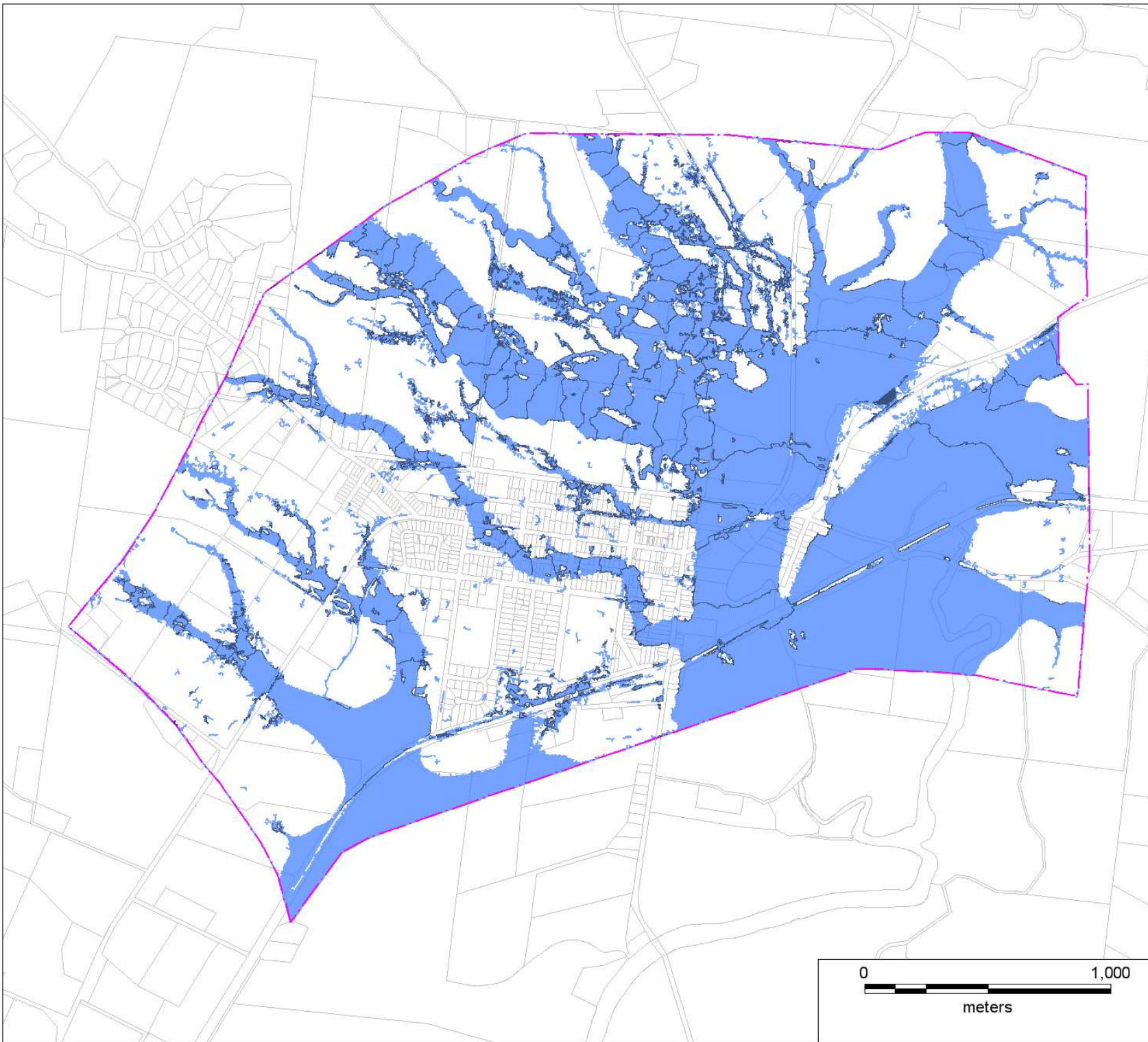





0 1,000
meters

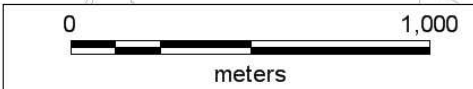
Map Produced by Cardno NSWACT Pty Ltd
Date: 6 September 2011
Coordinate System: Zone 56/1 ISG
GIS MAP REF:
W4858_01_Figure_7-4_20yr_Extent.mxd 02

FIGURE 7.5
2% AEP
FLOOD EXTENT

Berry FRMSP



-  Model Extent
-  Flood Extent
-  Peak Water Level Contours
1m Increments

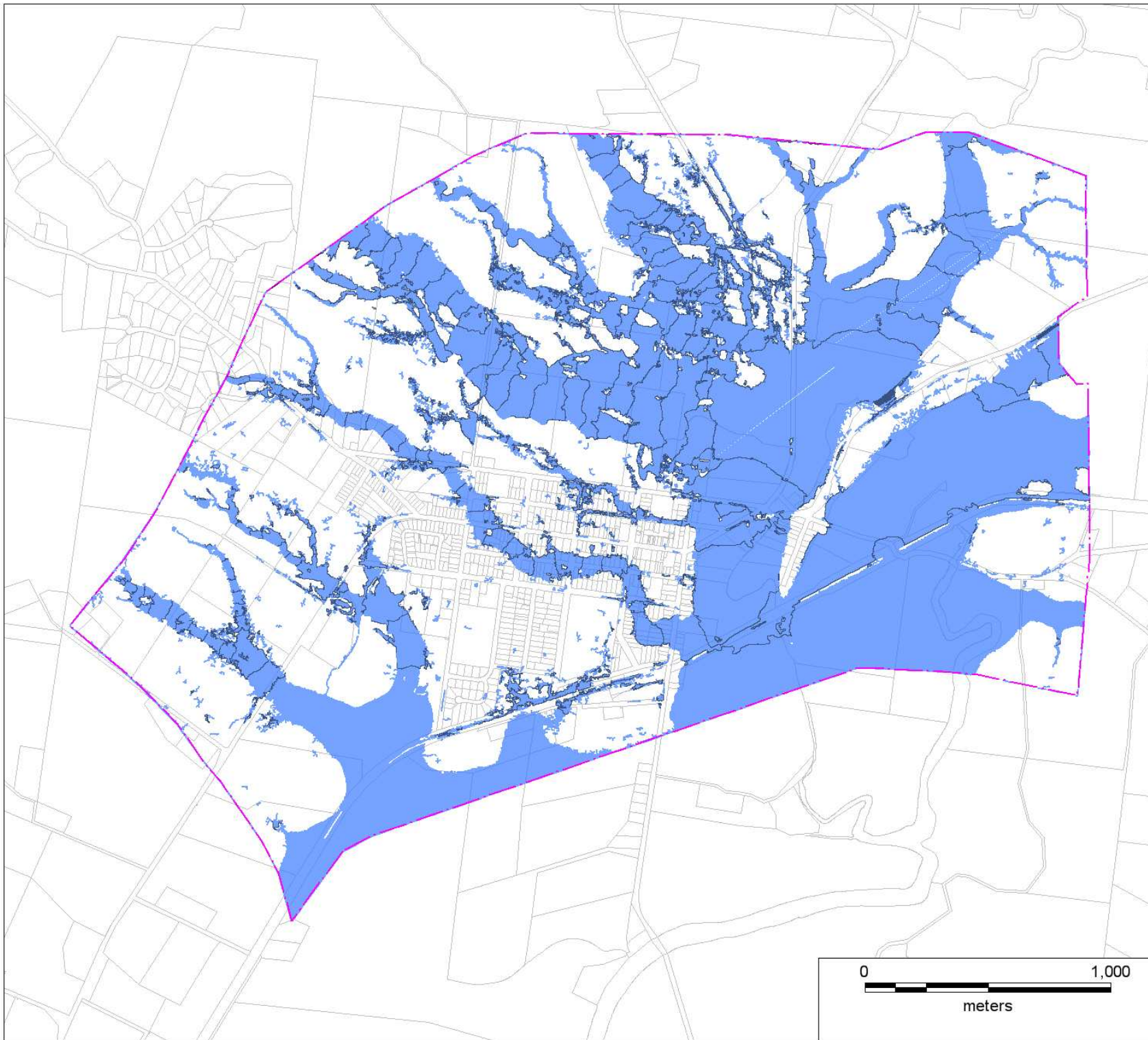





Map Produced by Cardno NSWACT Pty Ltd
Date: 6 September 2011
Coordinate System: Zone 56/1 ISG
GIS MAP REF:
W4858_01_Figure_7-5_50yr_Extent.mxd 02

FIGURE 7.6

**1% AEP
FLOOD EXTENT**

Berry FRMSP



-  Model Extent
-  Flood Extent
-  Peak Water Level
Contours
1m Increments

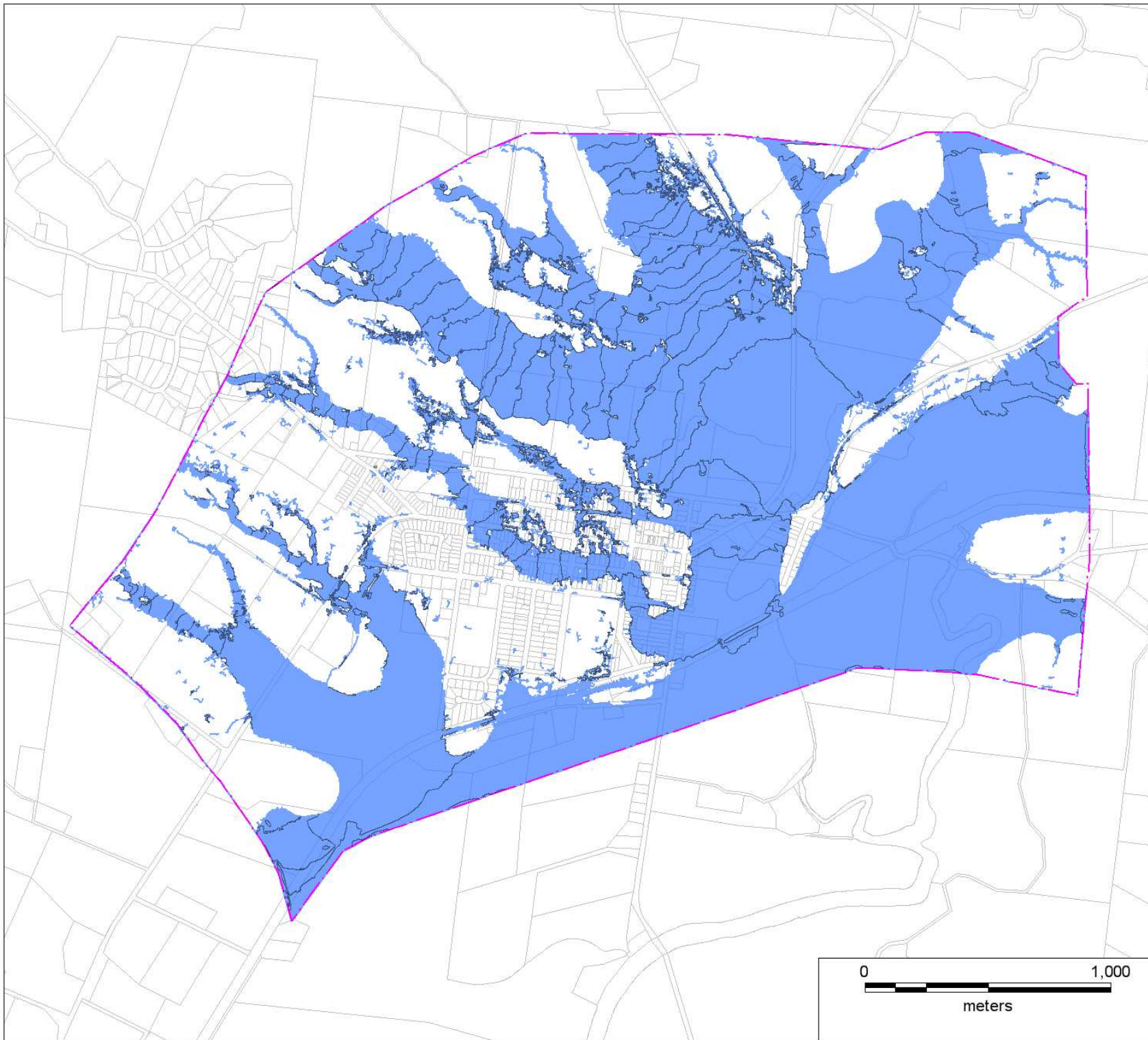





0 1,000
meters

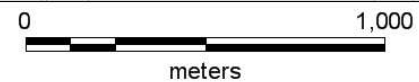
Map Produced by Cardno NSW/ACT Pty Ltd
Date: 6 September 2011
Coordinate System: Zone 56/1 ISG
GIS MAP REF:
W4858_01_Figure_7-6_100yr_Extent.mxd 02

FIGURE 7.7
PMF
FLOOD EXTENT

Berry FRMSP



-  Model Extent
-  Flood Extent
-  Peak Water Level Contours
1m Increments



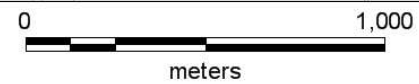
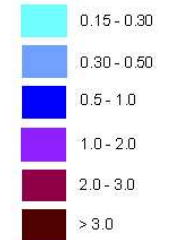
Map Produced by Cardno NSWACT Pty Ltd
Date: 6 September 2011
Coordinate System: Zone 56/1 ISG
GIS MAP REF:
W4858_01_Figure_7-7_PMF_Extent.mxd 02

FIGURE 7.8
50% AEP
PEAK FLOOD DEPTH

Berry FRMSP

 Model Exten

Depth (metres)



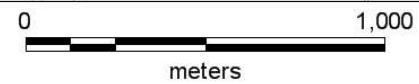
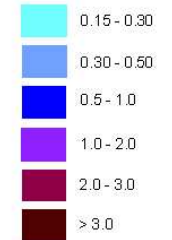
Map Produced by Cardno NSW/ACT Pty Ltd
Date: 8 September 2011
Coordinate System: Zone 56/1 ISG
GIS MAP REF:
W4858_01_Figure_7-8_2yr_Depth.mxd 02

FIGURE 7.9
20% AEP
PEAK FLOOD DEPTH

Berry FRMSP

 Model Extent

Depth (metres)



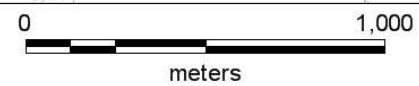
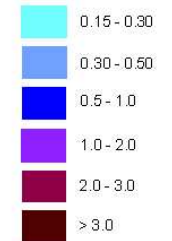
Map Produced by Cardno NSW/ACT Pty Ltd
Date: 8 September 2011
Coordinate System: Zone 56/1 ISG
GIS MAP REF:
W4858_01_Figure_7-9_5yr_Depth.mxd 02

FIGURE 7.10
10% AEP
PEAK FLOOD DEPTH

Berry FRMSP

 Model Extent

Depth (metres)



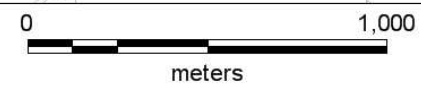
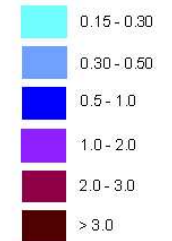
Map Produced by Cardno NSW/ACT Pty Ltd
Date: 8 September 2011
Coordinate System: Zone 56/1 ISG
GIS MAP REF:
W4858_01_Figure_7-10_10yr_Depth.mxd 02

FIGURE 7.11
5% AEP
PEAK FLOOD DEPTH

Berry FRMSP

 Model Extent

Depth (metres)



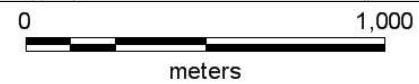
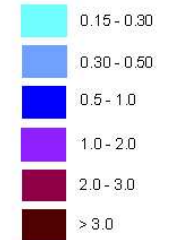
Map Produced by Cardno NSW/ACT Pty Ltd
Date: 8 September 2011
Coordinate System: Zone 56/1 ISG
GIS MAP REF:
W4858_01_Figure_7-11_20yr_Depth.mxd 02

FIGURE 7.12
2% AEP
PEAK FLOOD DEPTH

Berry FRMSP

 Model Extent

Depth (metres)









Map Produced by Cardno NSW/ACT Pty Ltd
Date: 8 September 2011
Coordinate System: Zone 56/1 ISG
GIS MAP REF:
W4858_01_Figure_7-12_50yr_Depth.mxd 02

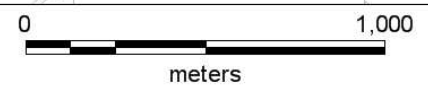
FIGURE 7.13
1% AEP
PEAK FLOOD DEPTH

Berry FRMSP

 Model Extent

Depth (metres)

-  0.15 - 0.30
-  0.30 - 0.50
-  0.5 - 1.0
-  1.0 - 2.0
-  2.0 - 3.0
-  > 3.0



Map Produced by Cardno NSW/ACT Pty Ltd
Date: 8 September 2011
Coordinate System: Zone 56/1 ISG
GIS MAP REF:
W4858_01_Figure_7-13_100yr_Depth.mxd 02

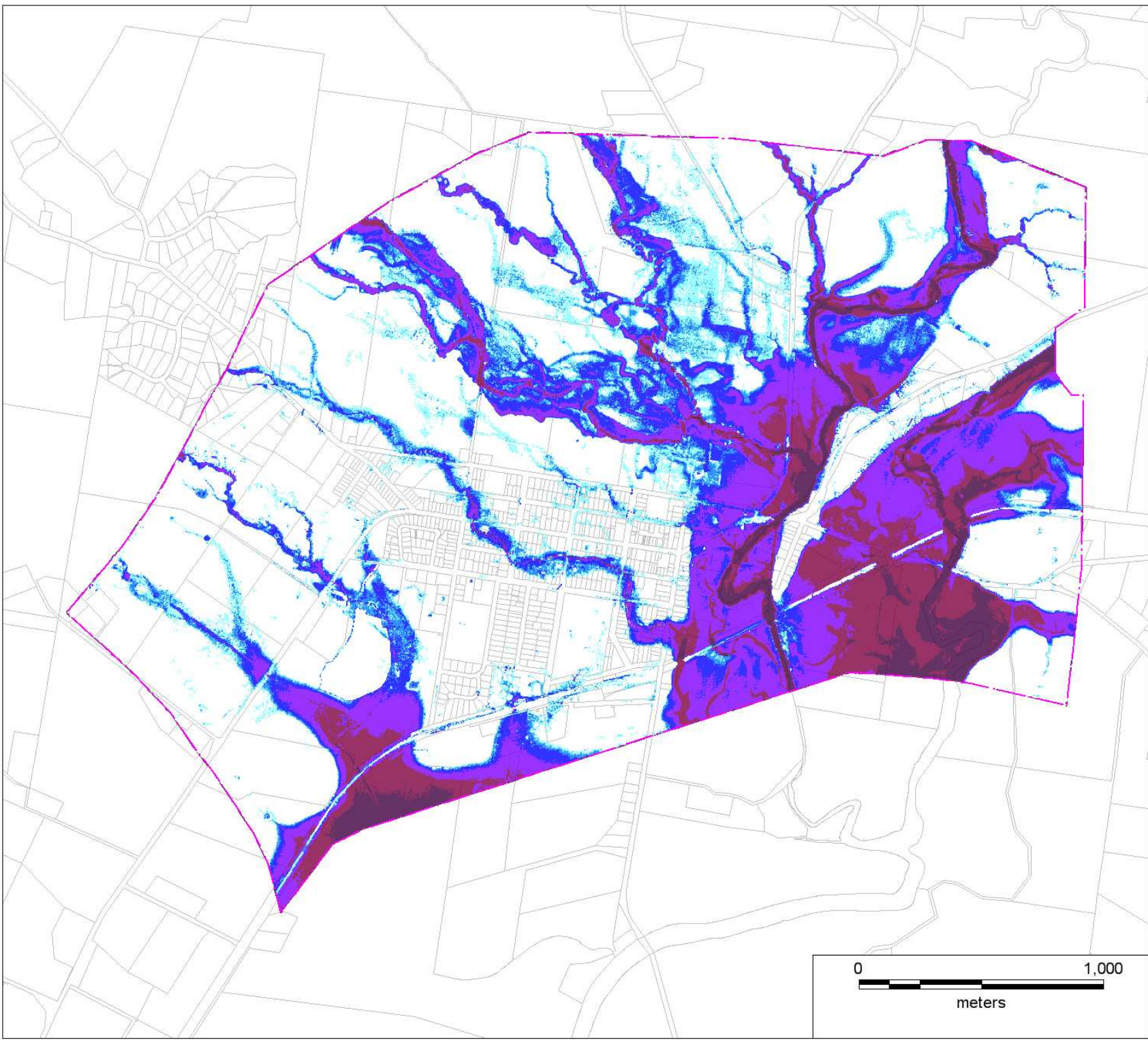








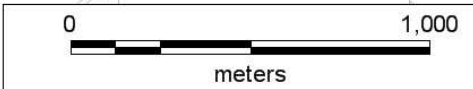
FIGURE 7.14
PMF
PEAK FLOOD DEPTH

Berry FRMSP

 Model Extent

Depth (metres)

-  0.15 - 0.30
-  0.30 - 0.50
-  0.5 - 1.0
-  1.0 - 2.0
-  2.0 - 3.0
-  > 3.0



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Date: 8 September 2011
Coordinate System: Zone 56/1 ISG
GIS MAP REF:
W4858_01_Figure_7-14_PMF_Depth.mxd 02

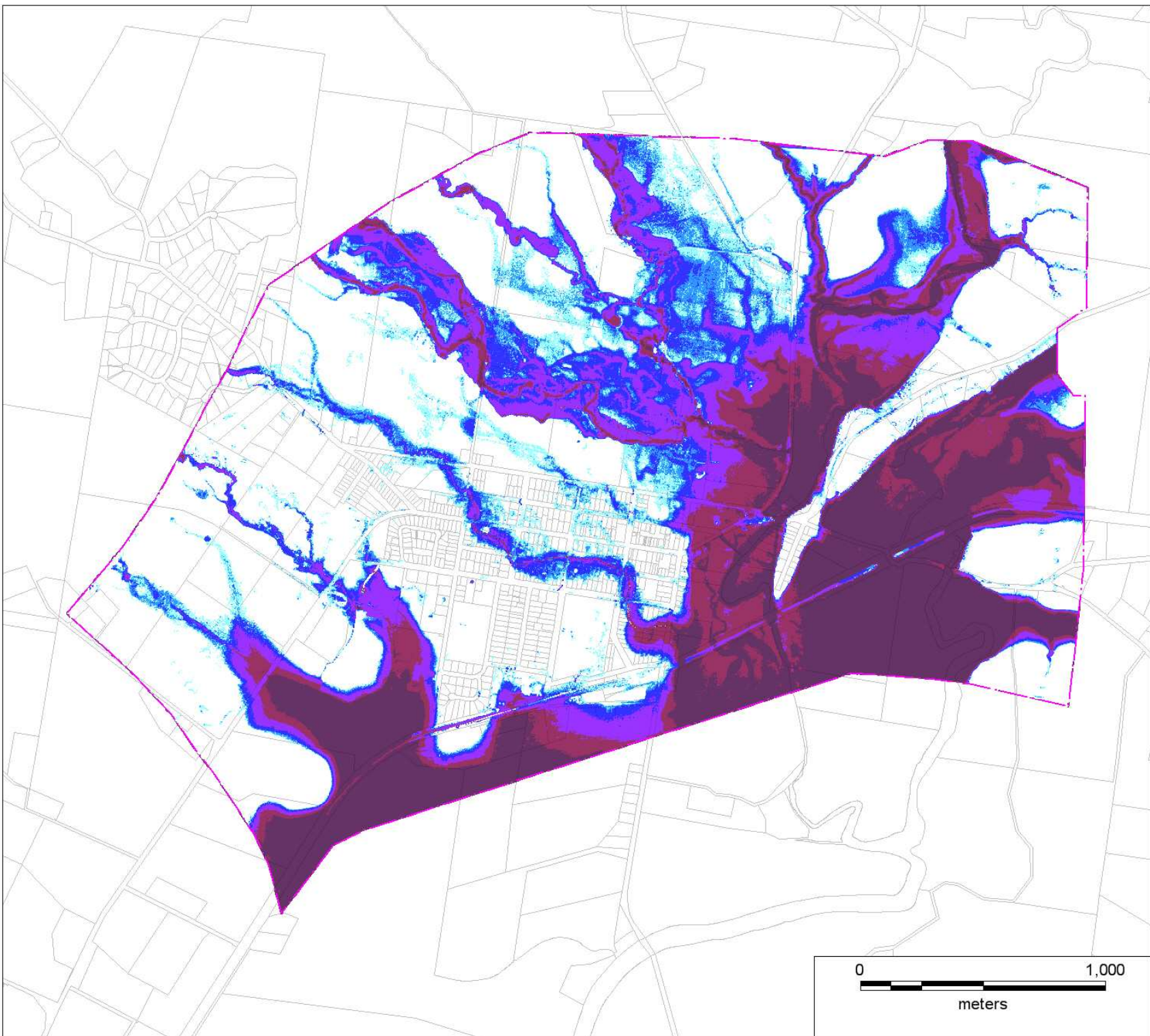


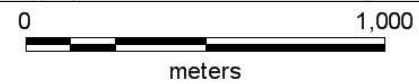
FIGURE 8.1
50% AEP
PROVISIONAL HAZARD

Berry FRMSP

 Model Extent

Provisional Hazard

 Low
 High



Map Produced by Cardno NSWACT Pty Ltd
Date: 8 September 2011
Coordinate System: Zone 56/1 ISG
GIS MAP REF:
W4858_01_Figure_8-1_2yr_Hazard.mxd 02

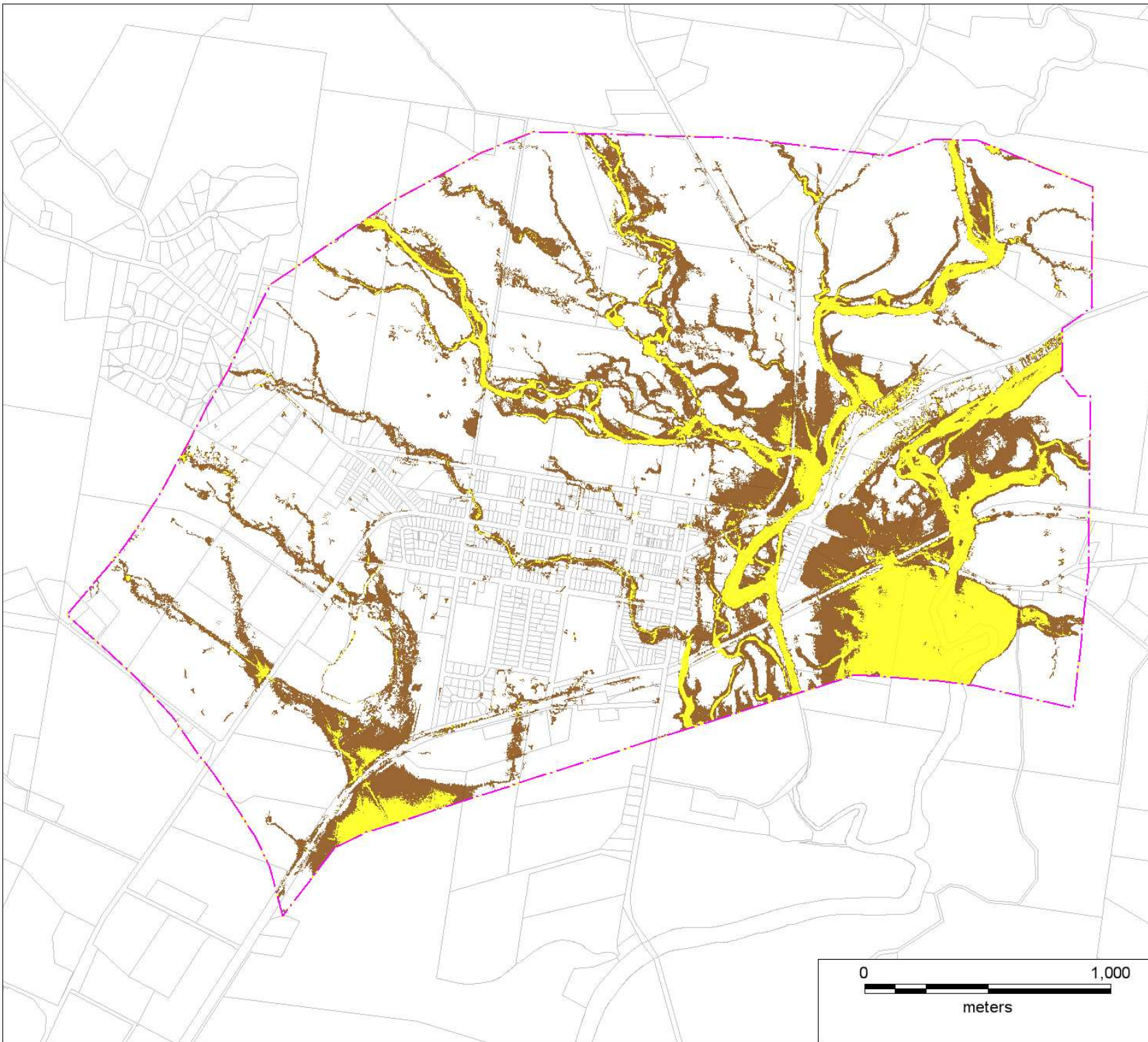


FIGURE 8.2
20% AEP
PROVISIONAL HAZARD

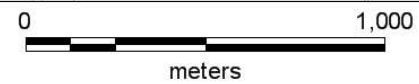
Berry FRMSP

 Model Exten

Provisional Hazard

 Low

 High



Map Produced by Cardno NSWACT Pty Ltd
Date: 8 September 2011
Coordinate System: Zone 56/1 ISG
GIS MAP REF:
W4858_01_Figure_8-2_5yr_Hazard.mxd 02

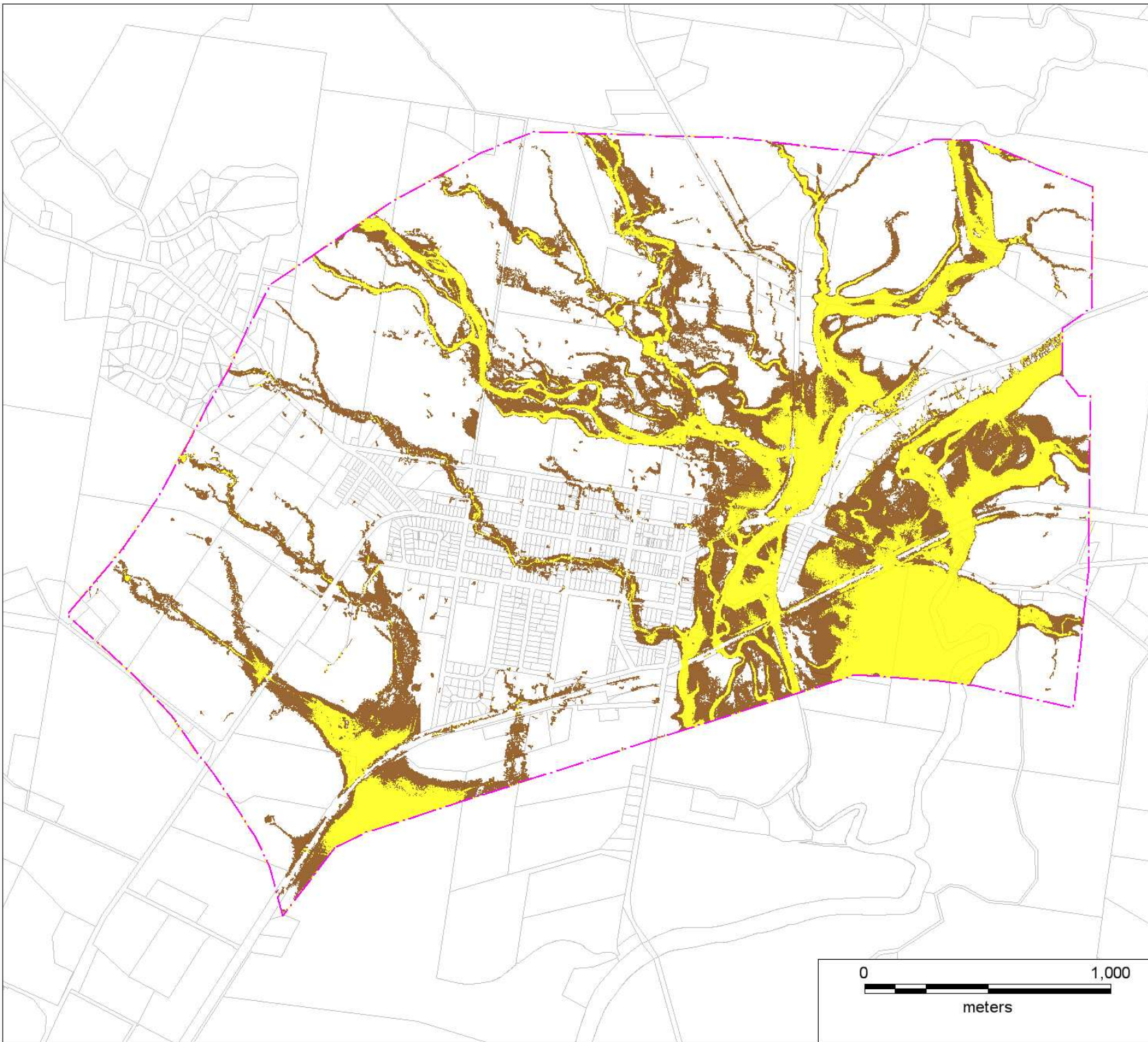





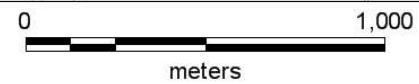
FIGURE 8.3
10% AEP
PROVISIONAL HAZARD

Berry FRMSP

 Model Extent

Provisional Hazard

 Low
 High



Map Produced by Cardno NSW/ACT Pty Ltd
Date: 8 September 2011
Coordinate System: Zone 56/1 ISG
GIS MAP REF:
W4858_01_Figure_8-3_10yr_Hazard.mxd 02

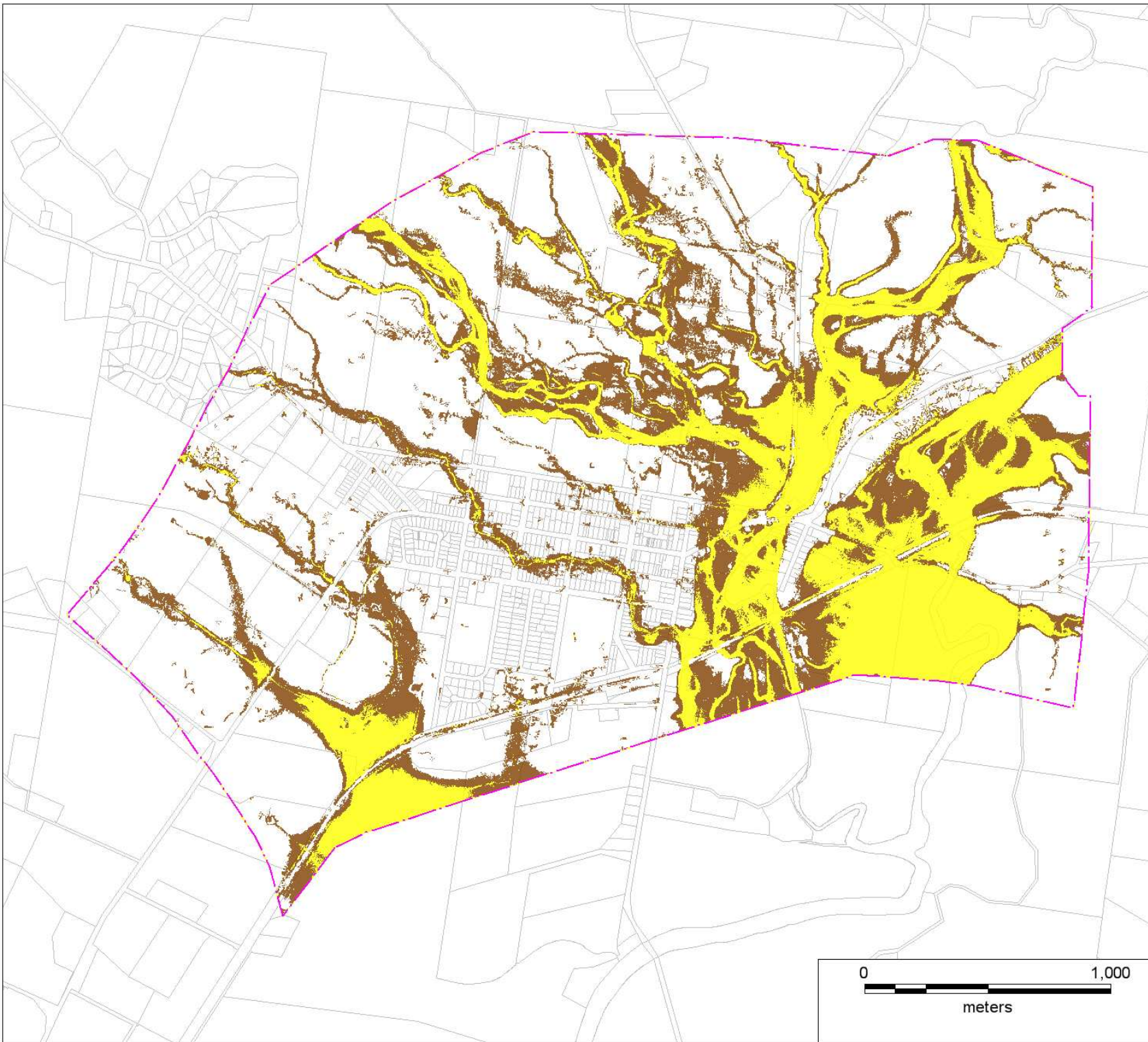



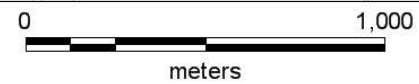
FIGURE 8.4
5% AEP
PROVISIONAL HAZARD

Berry FRMSP

 Model Extent

Provisional Hazard

 Low
 High



Map Produced by Cardno NSW/ACT Pty Ltd
Date: 8 September 2011
Coordinate System: Zone 56/1 ISG
GIS MAP REF:
W4858_01_Figure_8-4_20yr_Hazard.mxd 02

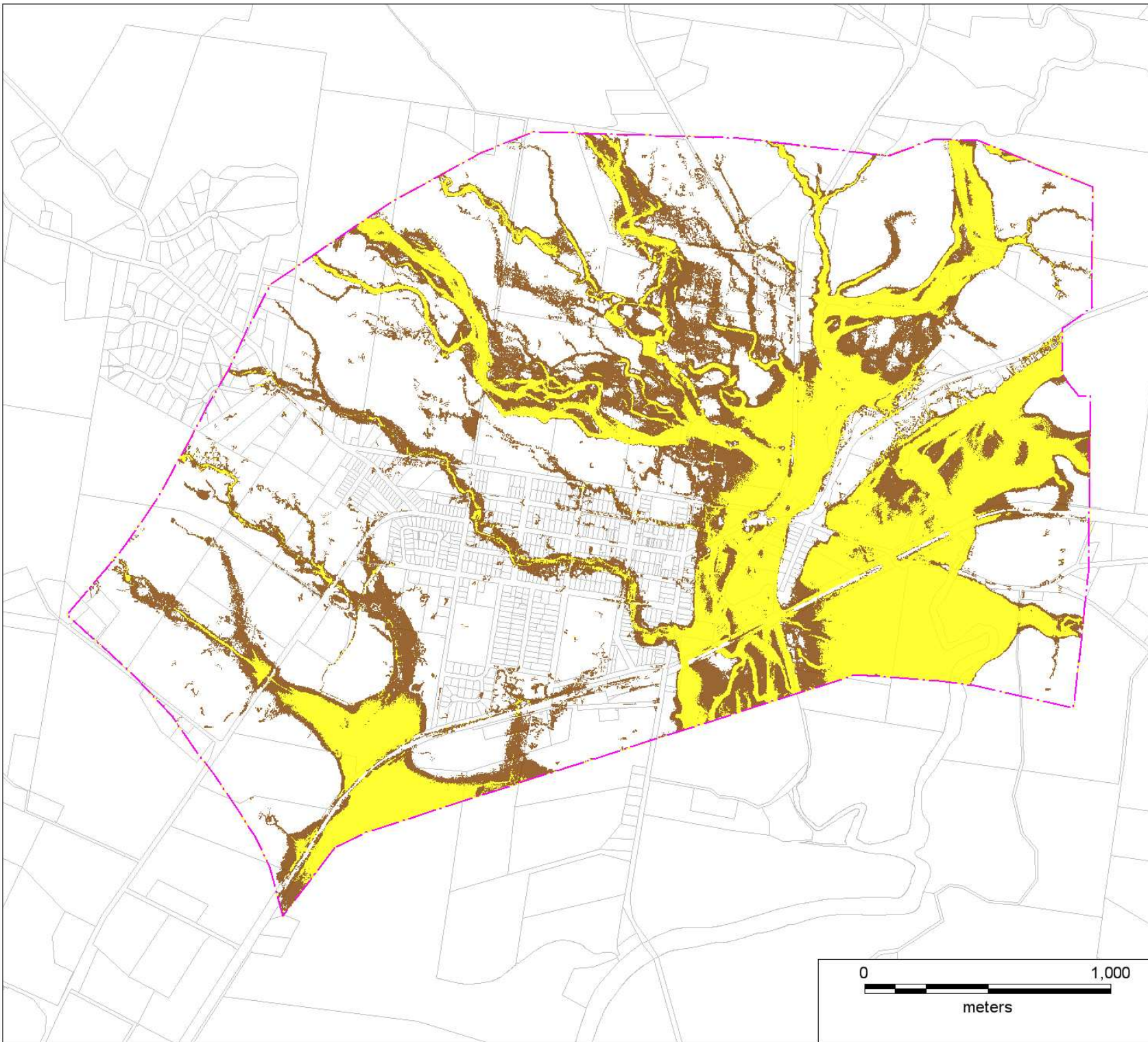




FIGURE 8.5
2% AEP
PROVISIONAL HAZARD

Berry FRMSP

 Model Extent

Provisional Hazard

 Low
 High

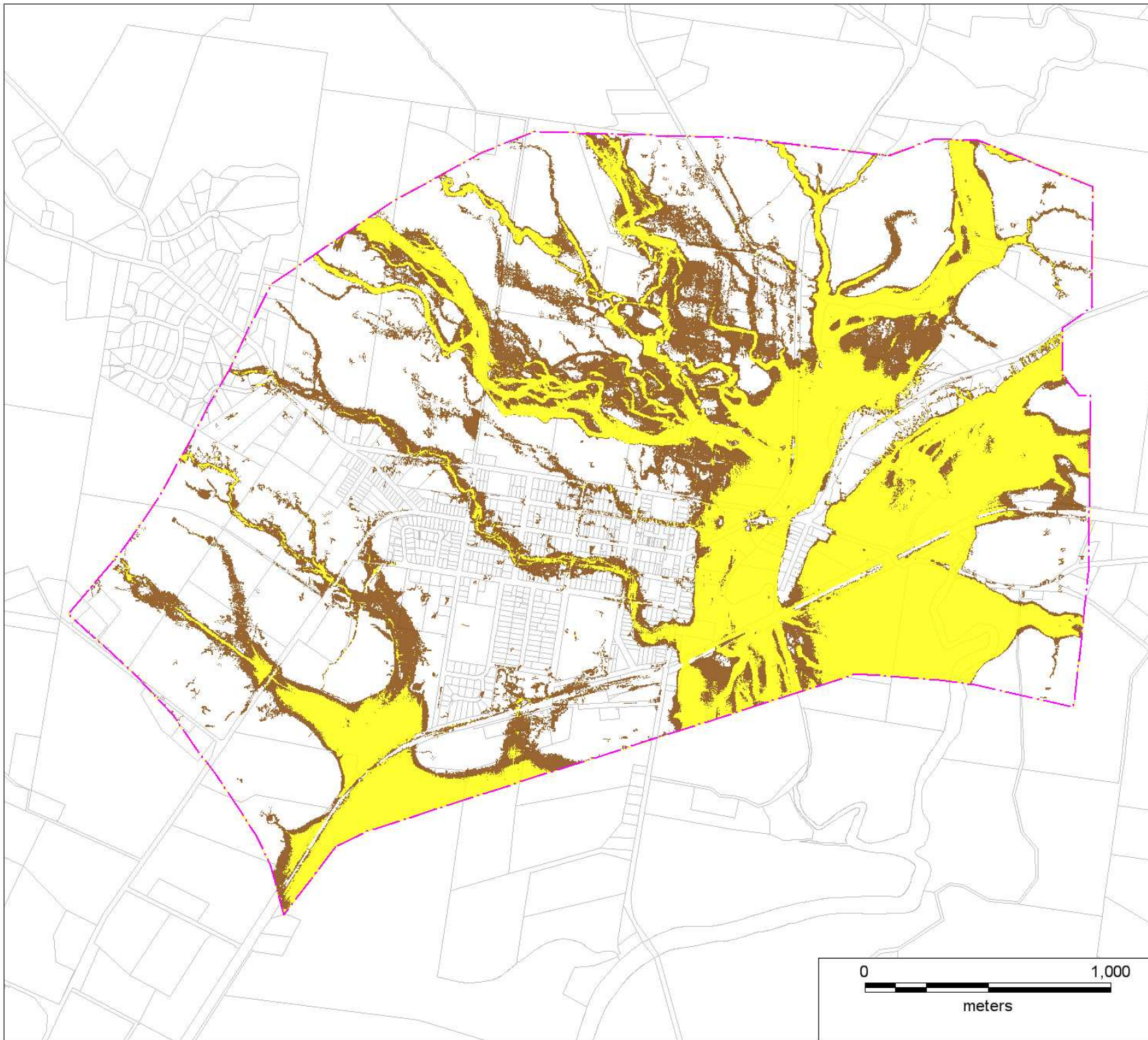



FIGURE 8.6
1% AEP
PROVISIONAL HAZARD


Berry FRMSP

 Model Extent

Provisional Hazard

 Low
 High



0  1,000
meters

Map Produced by Cardno NSW/ACT Pty Ltd
Date: 8 September 2011
Coordinate System: Zone 56/1 ISG
GIS MAP REF:
W4858_01_Figure_8-6_100yr_Hazard.mxd 02

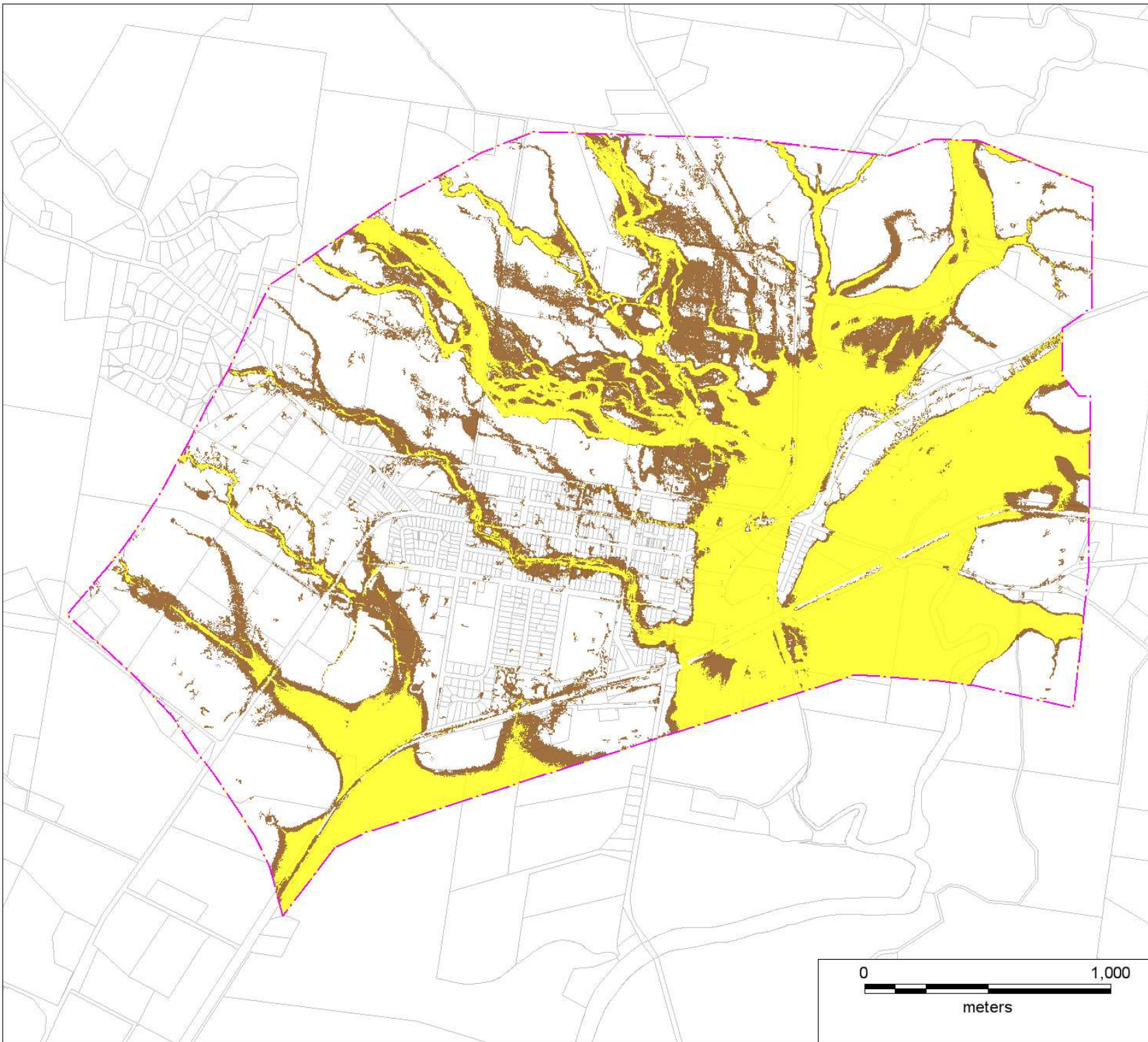




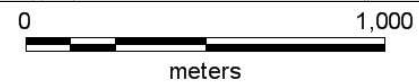
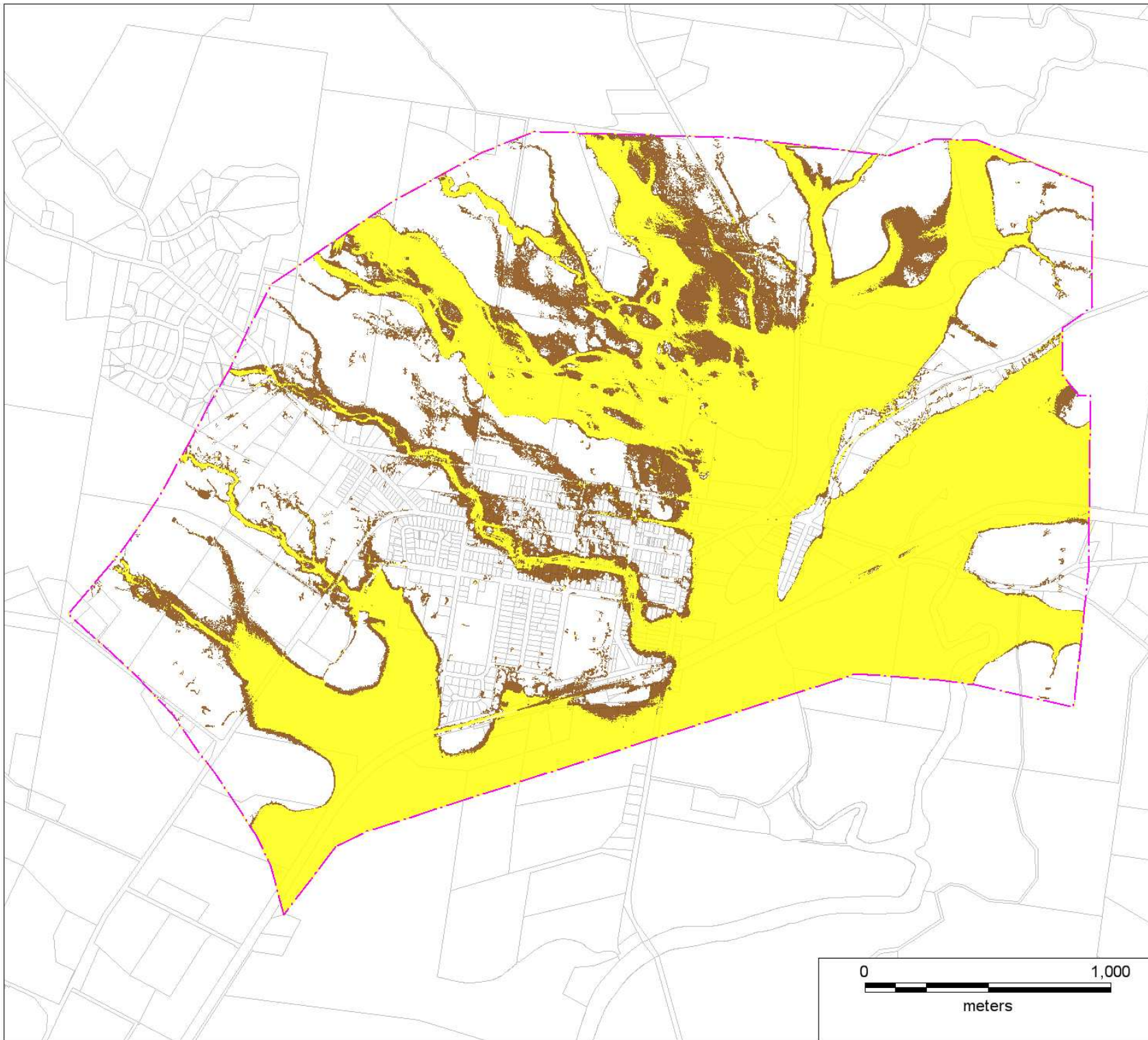
FIGURE 8.7
PMF
PROVISIONAL HAZARD

Berry FRMSP

 Model Extent

Provisional Hazard

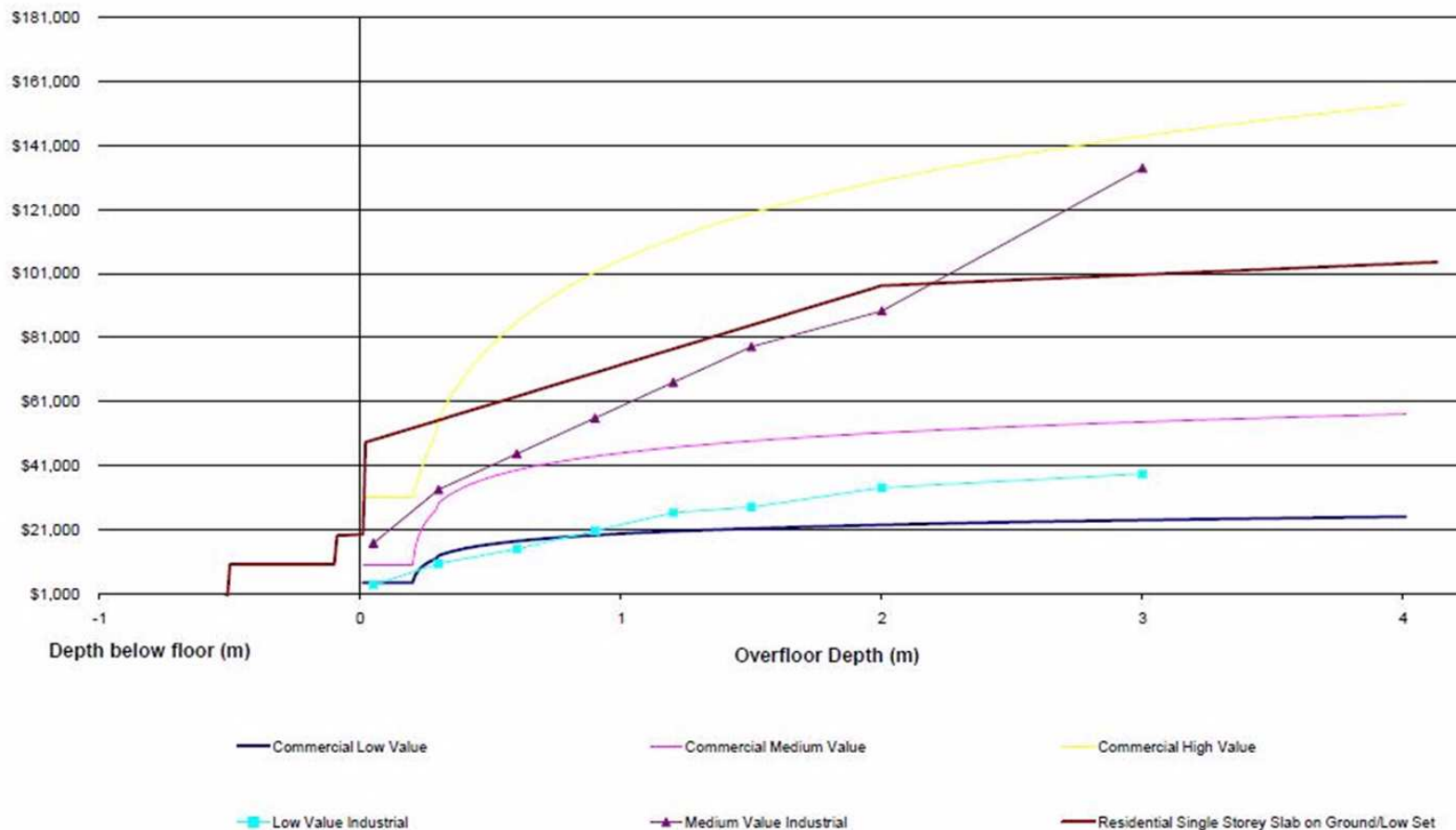
 Low
 High



Map Produced by Cardno NSWACT Pty Ltd
Date: 8 September 2011
Coordinate System: Zone 56/1 ISG
GIS MAP REF:
W4858_01_Figure_8-7_PMF_Hazard.mxd 02

FIGURE 9.1 DAMAGE CURVES

Berry FRMSP



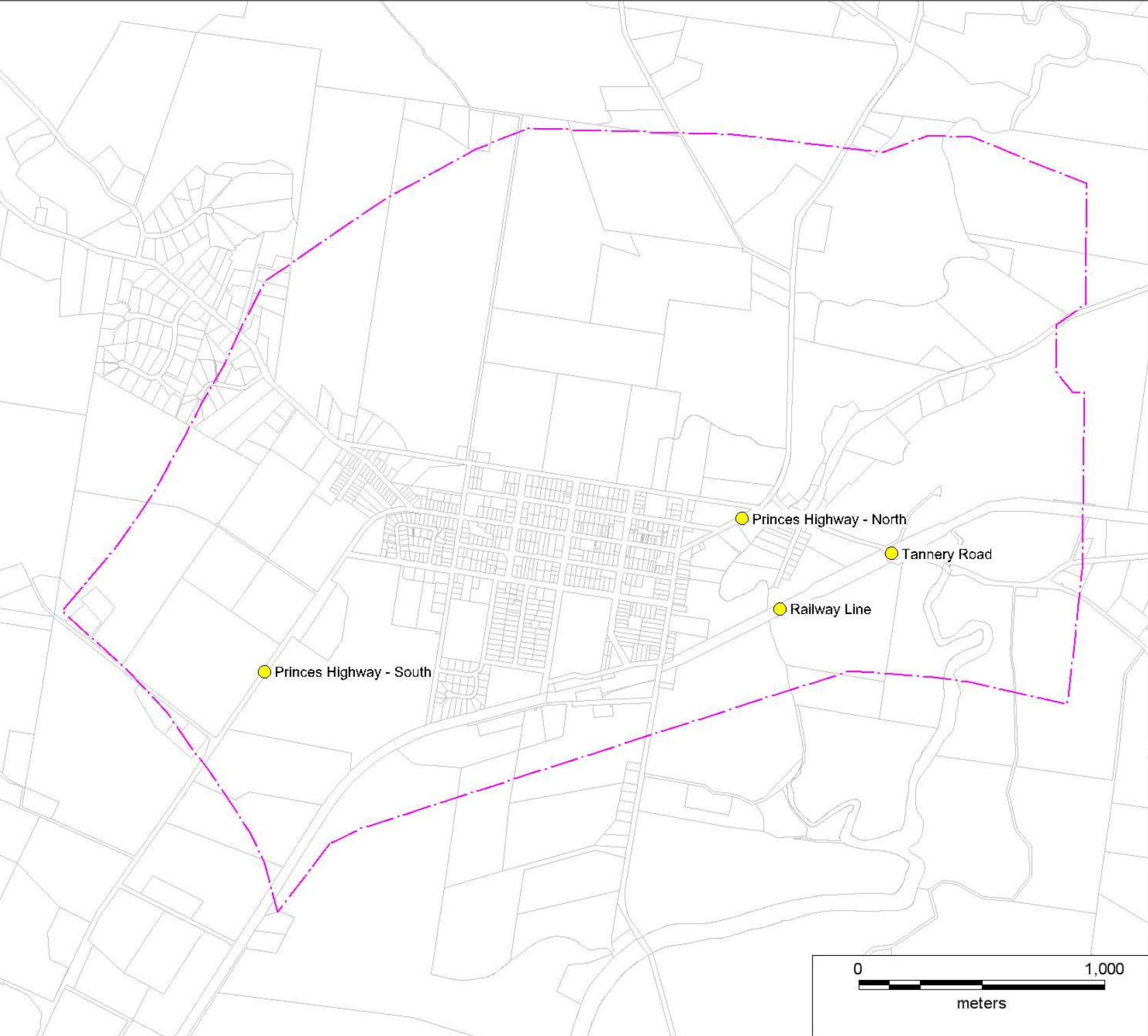
NOTE: Data for Commercial and Industrial properties are shown for a 100 sq.m floor area



Garden damage for residential properties are not shown on these curves

FIGURE 11.1

**KEY ACCESS
OVERTOPPING
LOCATIONS**

Berry FRMSP



-  Model Extent
-  Key Access Location

