Darlington Point

Draft Floodplain Risk Management Study & Plan

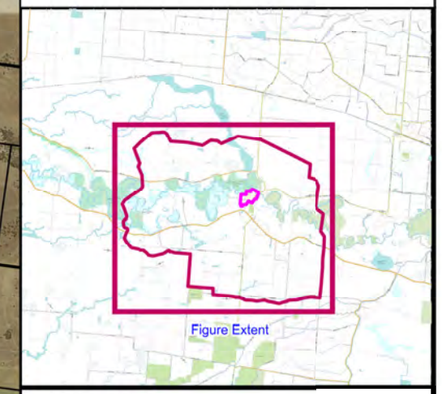
Volume 2 of 2: Figures

February 2021

Catchment Simulation Solutions

FIGURES

Murrumbidgee COUNCIL



Beneremban

Darlington Point

Murrumbidgee River

Kidman Way

Sturt Highway

Kidman Way

Sturt Highway

LEGEND

- Study Area
- Local Catchment Model Extent
- Watercourse

Notes:

N
W E
S

Scale 1:35,000 (at A3)

0 1.0 2.0

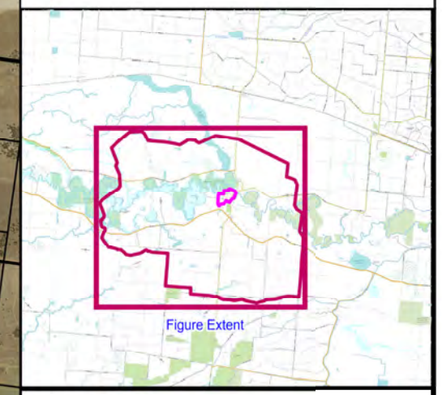
Km

Figure 1: Darlington Point Study Area

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name: Darlington Point Study Area.wor

Murrumbidgee COUNCIL



LEGEND

Ground Surface Elevation (mAHD)

- < 114
- 116
- 118
- 120
- 122
- 124
- 126
- 128
- 130
- > 132

Notes:

N
W E
S

Scale 1:35,000 (at A3)

0 1.0 2.0

Km

Figure 2: Digital Elevation Model

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name: DEM.wor

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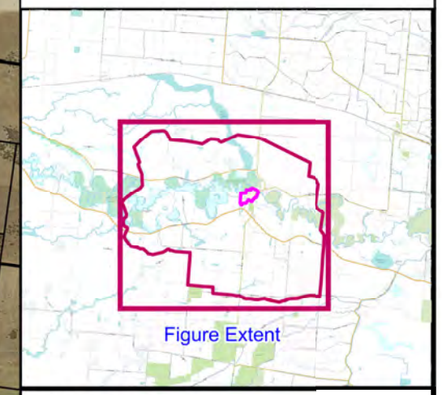


LEGEND

- Study Area
- Local Catchment Model Extent
- Floor Level Information Obtained as Part of This Study
- 5m 2009 LiDAR Extent
- 1m 2009 LiDAR Extent
- Survey Cross Section Location
- Location of Final Alignment of Upgraded Levee
- Stormwater Culvert
- Stormwater Pit

Notes:

N
W E
S

Scale 1:70,000 (at A3)

0 2.0 4.0

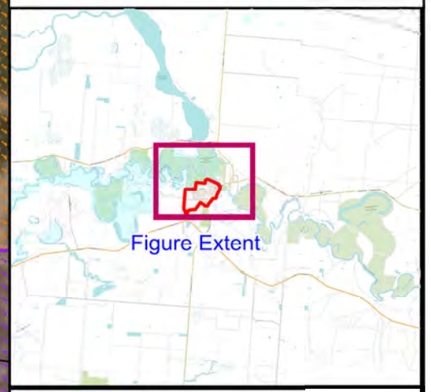
Km

Figure 3: Existing Datasets

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name: Existing Datasets.wor

Murrumbidgee COUNCIL



LEGEND

- Study Area
- Local Catchment Model Extent
- Floor Level Information Obtained as Part of This Study
- 5m 2009 LiDAR Extent
- 1m 2009 LiDAR Extent
- Survey Cross Section Location
- Location of Final Alignment of Upgraded Levee
- Stormwater Culvert
- Stormwater Pit

Notes:

N
W E
S

Scale 1:15,000 (at A3)

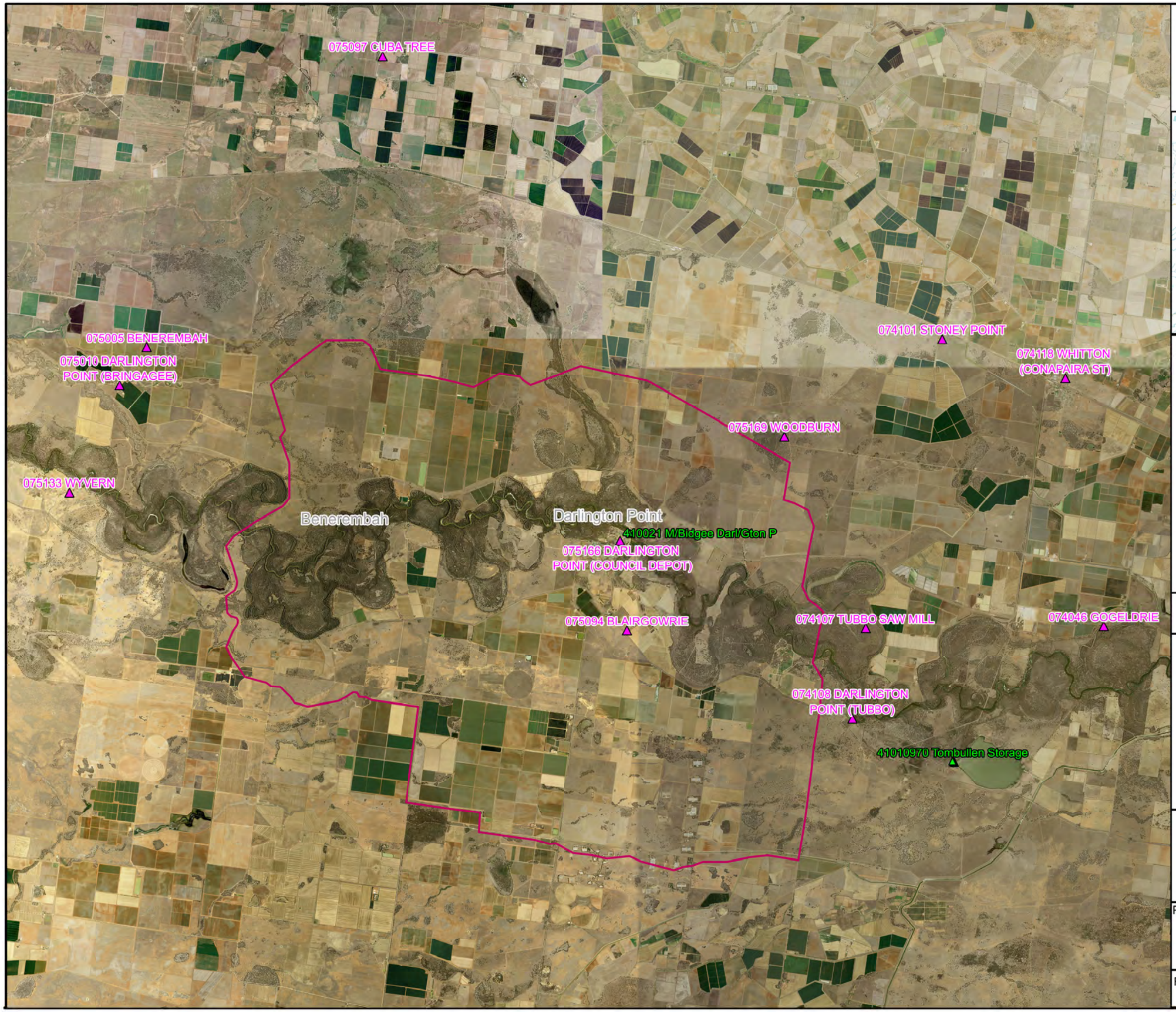
0 0.5 1.0

Km

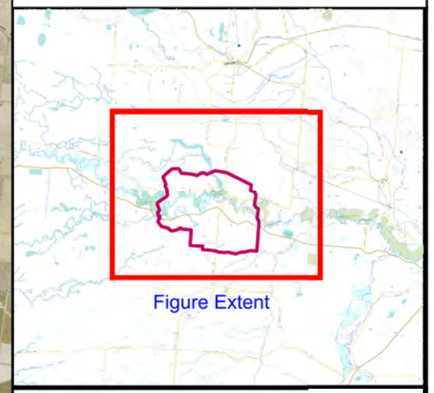
Figure 3.1:
Existing Datasets

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name: Existing Datasets.wor



Murrumbidgee COUNCIL



LEGEND

- Study Area
- BOM Rainfall Gauge
- Stream Gauge

Notes:

N
W E
S

Scale 1:140,000 (at A3)

0 4.0 8.0

Km

Figure 4:
Location of Gauges

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name: Location of Gauges.wor

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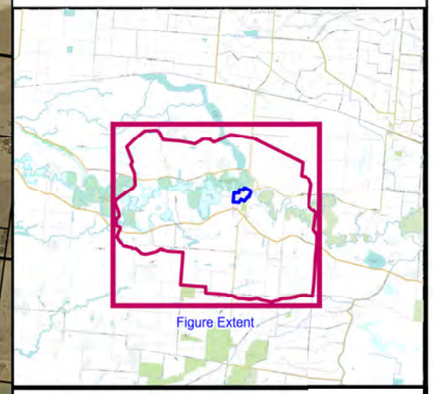


LEGEND

- Study Area
- Location of Final Alignment of Upgraded Levee

Land Zone	
Residential	R5
Rural	RU1
	RU5
Recreation	RE1
Environmental	E1
	E3
Waterways	W1
	W2
Special Activities	SP2

Notes:

N W E S

Scale 1:35,000 (at A3)

0 1.0 2.0 Km

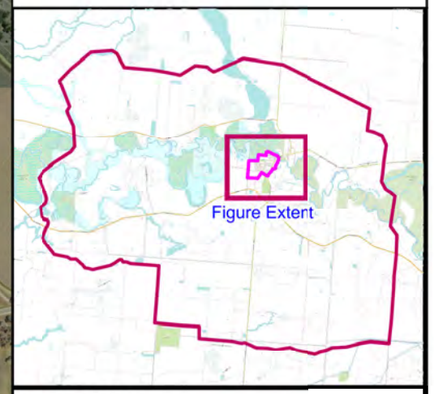
Figure 5: Land Zoning

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name: Land Zoning.wor

Kooba;Kooba Station;
Kooba;MSC;
Kooba;M.S.C.;Darlington Point;
Kooba 111;
Darlington Point Common
Darlington Point Common 1
DPCOS-ST1
DPCOS-OS1 with PAD
DPCOS IF01
Darlington Point STP-3
Darlington Pt;Swimming Pool Site;
darlington point school
Possum Tree;Warangesda;
Benerembah Canoes;T.S.R.;
DARLING POINT STP - 1 similar to 49-4-0067
Darlington Point STP-1
Crown Land Darlington Point 1
DPCOS ST6
UriCrown Land Darlington Point 2
Waddi;Darlington Point;
1
2
3

Murrumbidgee COUNCIL



LEGEND

- Study Area
- Location of Final Alignment of Upgraded Levee

Heritage Sites
- Aboriginal Heritage Site
- General Heritage Site
- Archaeological Heritage Site

Notes:

N
W E
S

Scale 1:15,000 (at A3)

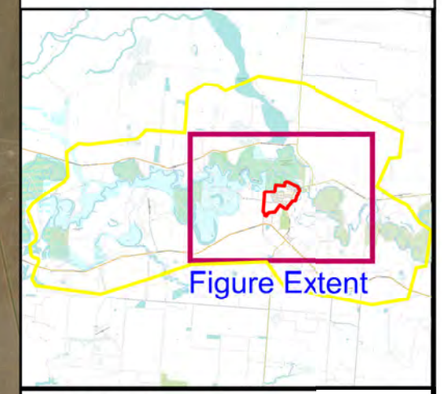
0 0.4 0.8
Km

Figure 6: Aboriginal Cultural and Heritage Constraints

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name: Aboriginal Cultural and Heritage Constraintsor

Murrumbidgee COUNCIL



LEGEND

- Study Area
- Catchment Boundary
- Wetlands
- Riparian Lands and Watercourses
- Biodiversity

Notes:

N
W E
S

Scale 1:15,000 (at A3)

0 0.4 0.8

Km

Figure 7: Environmental Constraints

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name: Environmental Constraints.wor

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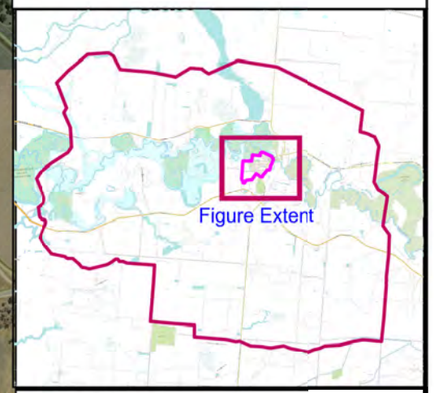
Electricity Substation

Kidman Way

Sturt Highway



LEGEND

- Study Area
- Location of Final Alignment of Upgraded Levee
- Critical Facility

Vulnerable Facility

- Council
- Church
- Caravan Park
- School
- Petrol Station
- Waste Water Treatment Facility

Item Number	Name of Facility
1	Darlington Point Public School
2	Saint Pauls Anglican Church
3	Darlington Point Church
4	Darlington Point Riverside Caravan Park
5	Waste Water Treatment Facility
6	Murrumbidgee Council
7	Petrol Station

Notes:

List of facilities is not exhaustive and there may be additional locations that are not identified on this plan.

N W E S

Scale 1:15,000 (at A3)

0 0.4 0.8

Km

Figure 8: Vulnerable and Critical Facilities

Prepared By:

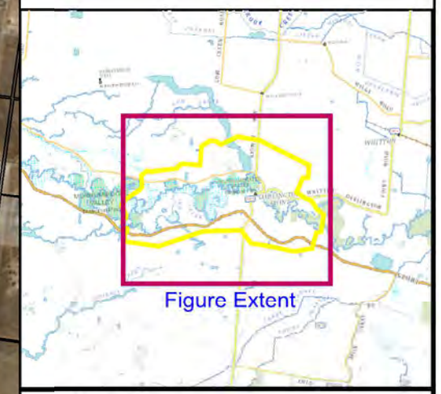
Catchment Simulation Solutions

Suite 10.01, 70 Phillip St

Sydney, NSW 2000

File Name: Vulnerable and Critical Facilities.wor

Murrumbidgee COUNCIL



LEGEND

- Model Extent
- Location of Model Extension

Notes:

N
W E
S

Scale 1:70,000 (at A3)

0 2.0 4.0

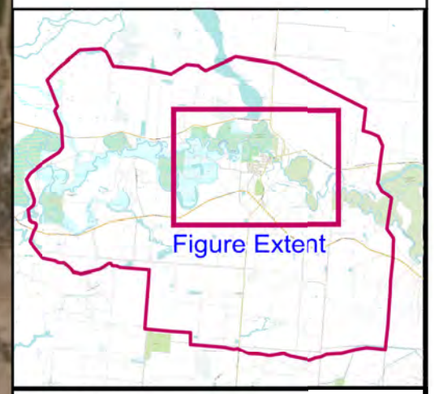
Km

Figure 9: Model Extension Areas

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name: Model Extension Areas.wor

Murrumbidgee COUNCIL



LEGEND

- Study Area
- Survey Cross Section Location
- Location of Final Alignment of Upgraded Levee
- Stormwater Culvert
- Stormwater Pit
- Additional Structures Added into updated model

Notes:

N
W E
S

Scale 1:35,000 (at A3)

0 1.0 2.0

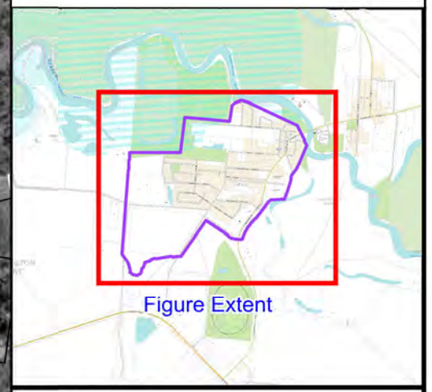
Km

Figure 10: Stormwater Pipe Network of Local Darlington Point Study Area

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Stormwater Pipe Network of Local Darlington Point Study Area.wor

Murrumbidgee COUNCIL



LEGEND

- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee

Depths (m)

- 0.10 to 0.25
- 0.25 to 0.5
- 0.5 to 1.0
- 1.0 to 2.0
- >2.0

Notes:

Only depths greater than 0.10 metres are included in mapping. Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour. Actua inundation patterns may vary slightly during a flood event.

N
W E
S

Scale 1:8,500 (at A3)

0 0.2 0.4

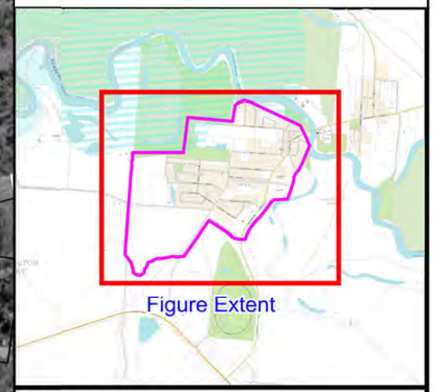
Km

Figure 11:
Local Catchment Inundation Peak Floodwater Depths for 10% AEP Design Flood

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 11: Local Catchment Inundation Peak Floodwater Depths for 10% AEP Design Flood.wor

Murrumbidgee COUNCIL



LEGEND

- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee

Depths (m)

- 0.10 to 0.25
- 0.25 to 0.5
- 0.5 to 1.0
- 1.0 to 2.0
- >2.0

Notes:

Only depths greater than 0.10 metres are included in mapping. Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour. Actua inundation patterns may vary slightly during a flood event.

N
W E
S

Scale 1:8,500 (at A3)

0 0.2 0.4

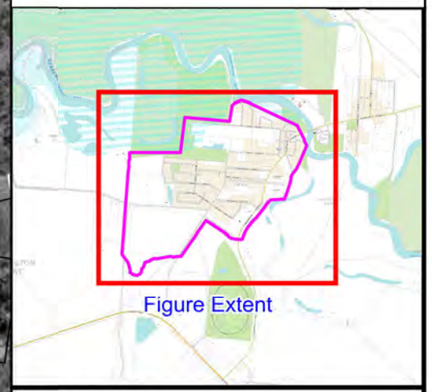
Km

Figure 12:
Local Catchment Inundation Peak Floodwater Depths for 5% AEP Design Flood

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 12: Local Catchment Inundation Peak Floodwater Depths for 5% AEP Design Flood.wor

Murrumbidgee COUNCIL



LEGEND

- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee

Depths (m)

- 0.10 to 0.25
- 0.25 to 0.5
- 0.5 to 1.0
- 1.0 to 2.0
- >2.0

Notes:

Only depths greater than 0.10 metres are included in mapping. Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour. Actua inundation patterns may vary slightly during a flood event.

N
W E
S

Scale 1:8,500 (at A3)

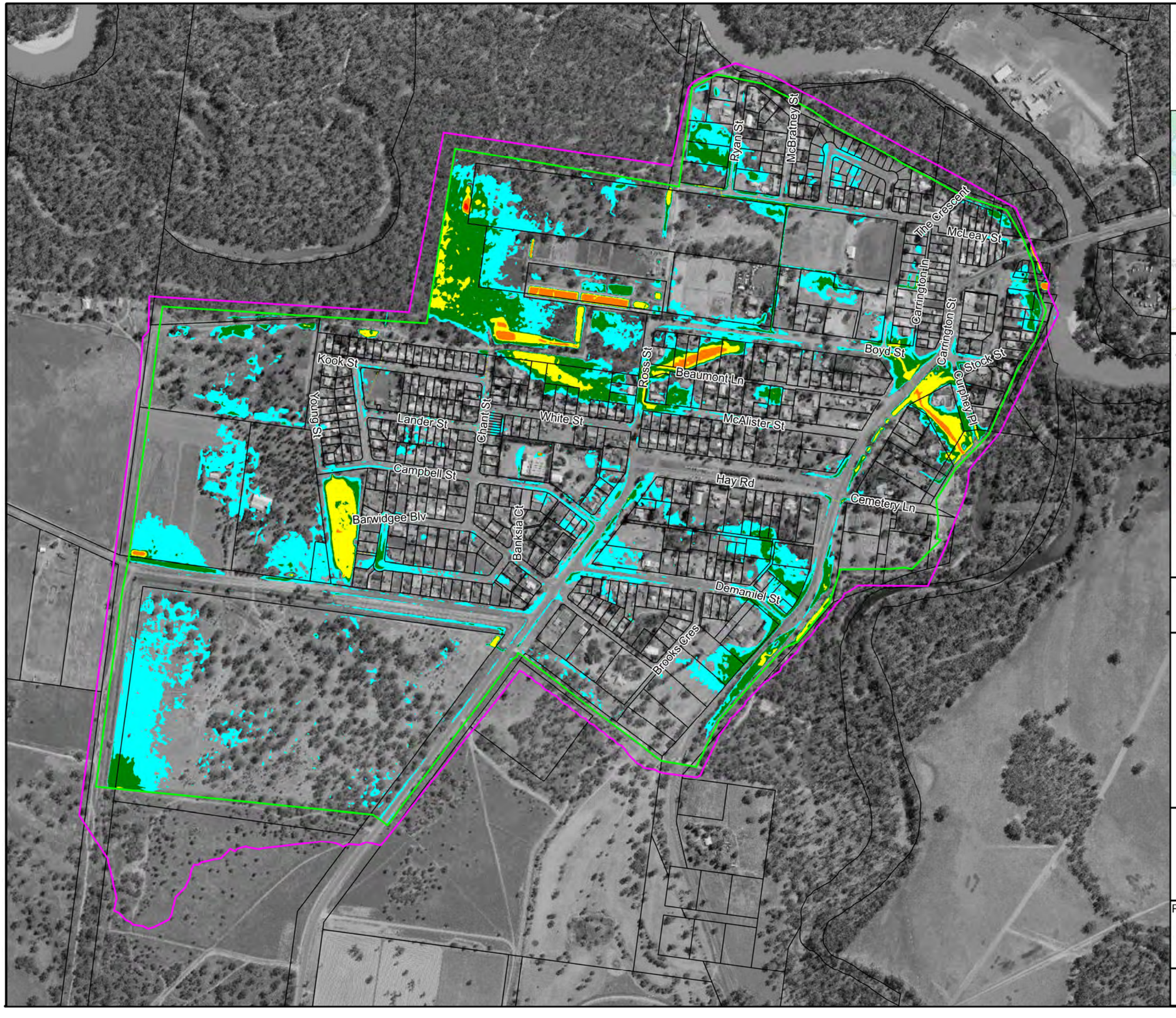
0 0.2 0.4

Km

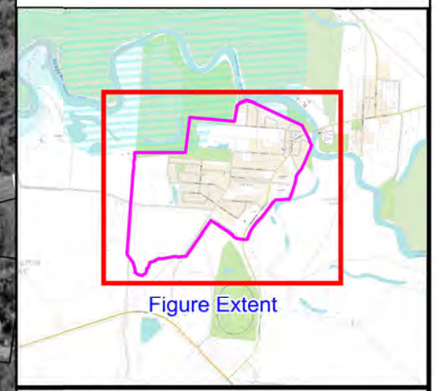
Figure 13:
Local Catchment Inundation Peak Floodwater Depths for 2% AEP Design Flood

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 13: Local Catchment Inundation Peak Floodwater Depths for 2% AEP Design Flood.wor



Murrumbidgee COUNCIL



LEGEND

- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee

Depths (m)

- 0.10 to 0.25
- 0.25 to 0.5
- 0.5 to 1.0
- 1.0 to 2.0
- >2.0

Notes:

Only depths greater than 0.10 metres are included in mapping. Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour. Actua inundation patterns may vary slightly during a flood event.

N W E S

Scale 1:8,500 (at A3)

0 0.2 0.4

Km

Figure 14:
Local Catchment Inundation Peak Floodwater Depths for 1% AEP Design Flood

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 14: Local Catchment Inundation Peak Floodwater Depths for 1% AEP Design Flood.wor

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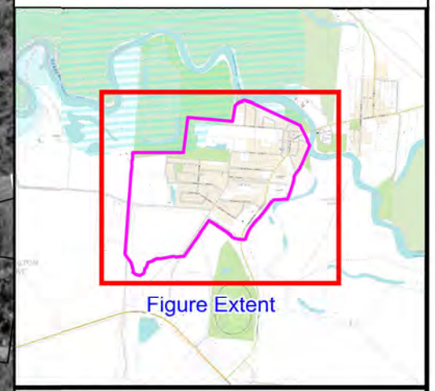

LEGEND

- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee

Depths (m)

- 0.10 to 0.25
- 0.25 to 0.5
- 0.5 to 1.0
- 1.0 to 2.0
- >2.0

Notes:

Only depths greater than 0.10 metres are included in mapping. Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour. Actua inundation patterns may vary slightly during a flood event.

N W E S

Scale 1:8,500 (at A3)

0 0.2 0.4 Km

Figure 15: Local Catchment Inundation Peak Floodwater Depths for 0.5% AEP Design Flood

Prepared By:

Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 15: Local Catchment Inundation Peak Floodwater Depths for 0.5% AEP Design Flood.wor

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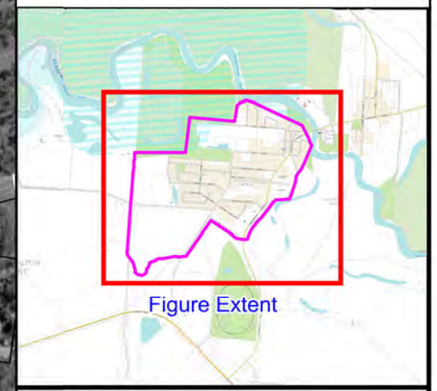


LEGEND

- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee

Depths (m)

- 0.10 to 0.25
- 0.25 to 0.5
- 0.5 to 1.0
- 1.0 to 2.0
- >2.0

Notes:

Only depths greater than 0.10 metres are included in mapping. Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour. Actua inundation patterns may vary slightly during a flood event.

N W E S

Scale 1:8,500 (at A3)

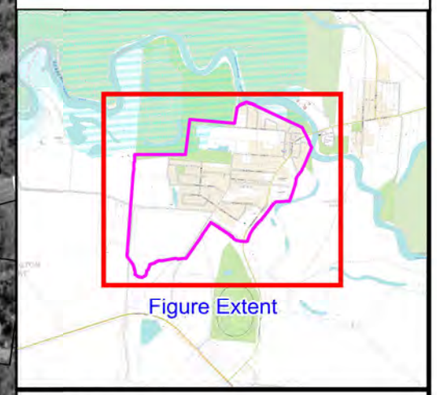
0 0.2 0.4 Km

Figure 16:
Local Catchment Inundation Peak Floodwater Depths for 0.2% AEP Design Flood

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 16: Local Catchment Inundation Peak Floodwater Depths for 0.2% AEP Design Flood.wor

Murrumbidgee COUNCIL



LEGEND

- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee

Depths (m)

- 0.10 to 0.25
- 0.25 to 0.5
- 0.5 to 1.0
- 1.0 to 2.0
- >2.0

Notes:

Only depths greater than 0.10 metres are included in mapping. Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour. Actua inundation patterns may vary slightly during a flood event.

N W E S

Scale 1:8,500 (at A3)

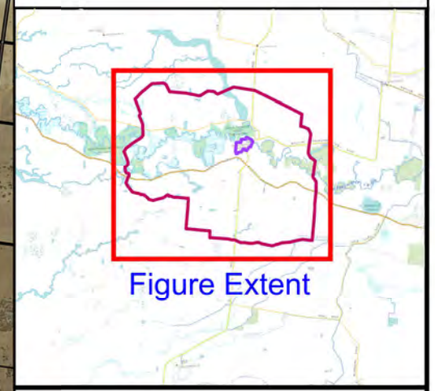
0 0.2 0.4 Km

Figure 17:
Local Catchment Inundation Peak Floodwater Depths for Extreme Design Flood

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 17: Local Catchment Inundation Peak Floodwater Depths for Extreme Design Flood.wor

Murrumbidgee COUNCIL



LEGEND

- Model Extent
- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee

Depths (m)

- 0 to 0.25
- 0.25 to 0.5
- 0.5 to 1.0
- 1.0 to 2.0
- >2.0

Notes:

Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour. Actual inundation patterns may vary slightly during a flood event.

N
W E
S

Scale 1:82,000 (at A3)

0 2.0 4.0

Km

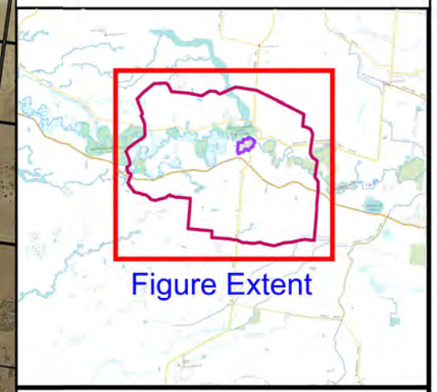
Figure 18
Murrumbidgee River main stream Peak Floodwater Depths for 20% AEP Design flood

Prepared By:

Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 18 Murrumbidgee River mainstream Peak Floodwater Depths for 20% AEP Design flood.wor

Murrumbidgee COUNCIL



LEGEND

- Model Extent
- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee

Depths (m)

- 0 to 0.25
- 0.25 to 0.5
- 0.5 to 1.0
- 1.0 to 2.0
- >2.0

Notes:

Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour. Actual inundation patterns may vary slightly during a flood event.

N
W E
S

Scale 1:82,000 (at A3)

0 2.0 4.0

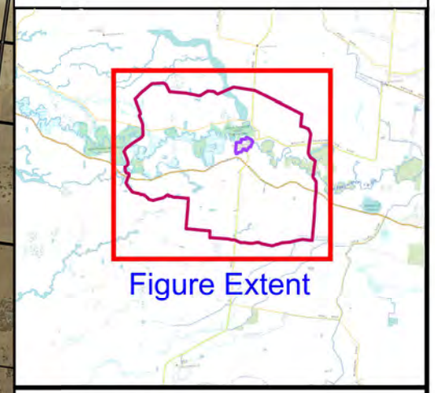
Km

Figure 19
Murrumbidgee River main stream Peak Floodwater Depths for 10% AEP Design flood

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 19 Murrumbidgee River mainstream Peak Floodwater Depths for 10% AEP Design flood.wor

Murrumbidgee COUNCIL



LEGEND

- Model Extent
- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee

Depths (m)

- 0 to 0.25
- 0.25 to 0.5
- 0.5 to 1.0
- 1.0 to 2.0
- >2.0

Notes:

Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour. Actual inundation patterns may vary slightly during a flood event.

N
W E
S

Scale 1:82,000 (at A3)

0 2.0 4.0

Km

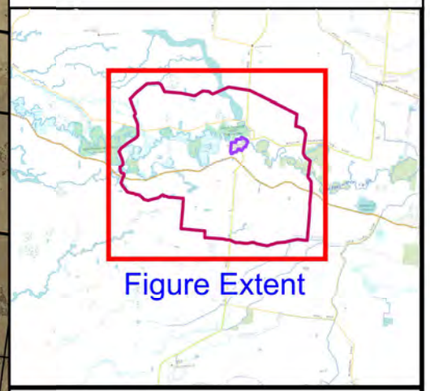
Figure 20
Murrumbidgee River main stream Peak Floodwater Depths for 5% AEP Design flood

Prepared By:

Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 20 Murrumbidgee River mainstream Peak Floodwater Depths for 5% AEP Design flood.wor

Murrumbidgee COUNCIL



LEGEND

- Model Extent
- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee

Depths (m)

- 0 to 0.25
- 0.25 to 0.5
- 0.5 to 1.0
- 1.0 to 2.0
- >2.0

Notes:

Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour. Actual inundation patterns may vary slightly during a flood event.

N W E S

Scale 1:82,000 (at A3)

0 2.0 4.0

Km

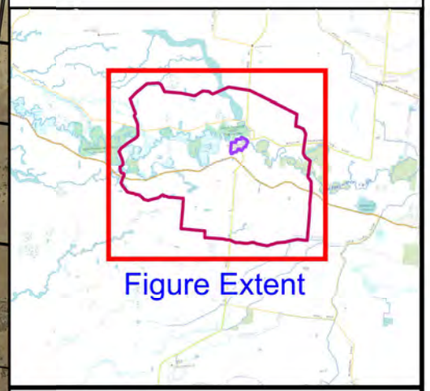
Figure 21
Murrumbidgee River main stream Peak Floodwater Depths for 2% AEP Design flood

Prepared By:

Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 21 Murrumbidgee River mainstream Peak Floodwater Depths for 2% AEP Design flood.wor

Murrumbidgee COUNCIL



LEGEND

- Model Extent
- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee

Depths (m)

- 0 to 0.25
- 0.25 to 0.5
- 0.5 to 1.0
- 1.0 to 2.0
- >2.0

Notes:

Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour. Actual inundation patterns may vary slightly during a flood event.

N
W E
S

Scale 1:82,000 (at A3)

0 2.0 4.0

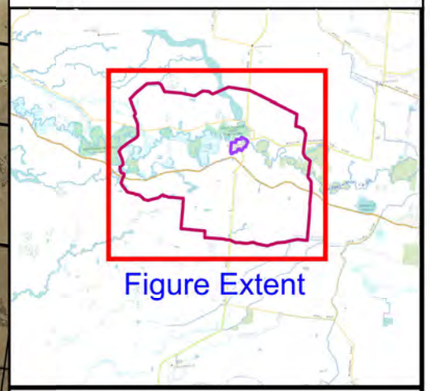
Km

Figure 22
Murrumbidgee River main stream Peak Floodwater Depths for 1% AEP Design flood

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 22 Murrumbidgee River mainstream Peak Floodwater Depths for 1% AEP Design flood.wor

Murrumbidgee COUNCIL



LEGEND

- Model Extent
- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee

Depths (m)

- 0 to 0.25
- 0.25 to 0.5
- 0.5 to 1.0
- 1.0 to 2.0
- >2.0

Notes:

Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour. Actual inundation patterns may vary slightly during a flood event.

N
W E
S

Scale 1:82,000 (at A3)

0 2.0 4.0

Km

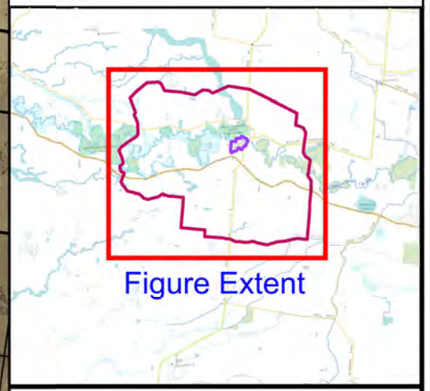
Figure 23
Murrumbidgee River main stream Peak Floodwater Depths for 0.5% AEP Design flood

Prepared By:

Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 23 Murrumbidgee River mainstream Peak Floodwater Depths for 0.5% AEP Design flood.wor

Murrumbidgee COUNCIL



LEGEND

- Model Extent
- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee

Depths (m)

- 0 to 0.25
- 0.25 to 0.5
- 0.5 to 1.0
- 1.0 to 2.0
- >2.0

Notes:

Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour. Actual inundation patterns may vary slightly during a flood event.

N W E S

Scale 1:82,000 (at A3)

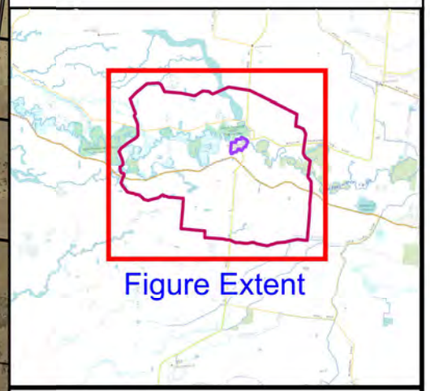
0 2.0 4.0 Km

Figure 24
Murrumbidgee River main stream Peak Floodwater Depths for 0.2% AEP Design flood

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 24 Murrumbidgee River mainstream Peak Floodwater Depths for 0.2% AEP Design flood.wor

Murrumbidgee COUNCIL



LEGEND

- Model Extent
- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee

Depths (m)

- 0 to 0.25
- 0.25 to 0.5
- 0.5 to 1.0
- 1.0 to 2.0
- >2.0

Notes:

Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour. Actua inundation patterns may vary slightly during a flood event.

N

W E

S

Scale 1:82,000 (at A3)

0 2.0 4.0

Km

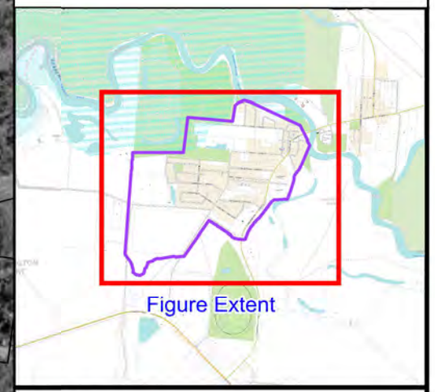
Figure 25
Murrumbidgee River main stream Peak Floodwater Depths for Extreme Design flood

Prepared By:

Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 25 Murrumbidgee River mainstream Peak Floodwater Depths for Extreme Design flood.wor

Murrumbidgee COUNCIL



LEGEND

- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee

Hazard Category

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

Notes:

Only depths greater than 0.10 metres are included in mapping. Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour. Actua inundation patterns may vary slightly during a flood event.

N

W E

S

Scale 1:8,500 (at A3)

0 0.2 0.4

Km

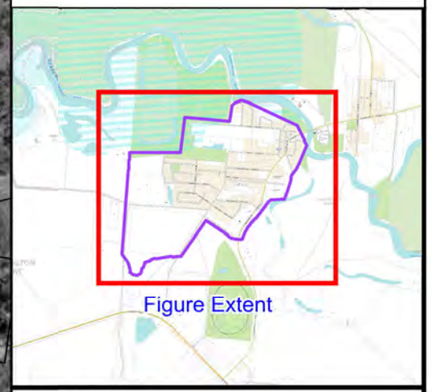
Figure 26:
Local Catchment Hazard Categorisation for 5% AEP Design flood

Prepared By:

Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 26 Local Catchment Hazard Categorisation for 5% AEP Design flood.wor

Murrumbidgee COUNCIL



LEGEND

- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee

Hazard Category

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

Notes:

Only depths greater than 0.10 metres are included in mapping. Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour. Actual inundation patterns may vary slightly during a flood event.

N

W E

S

Scale 1:8,500 (at A3)

0 0.2 0.4

Km

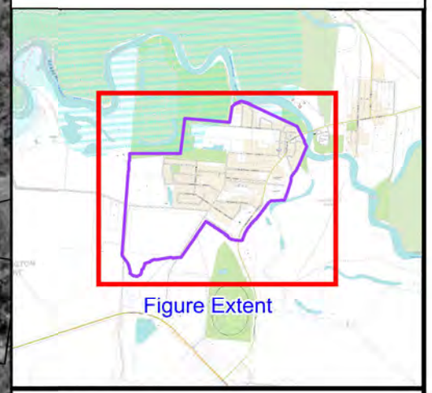
Figure 27: Local Catchment Hazard Categorisation for 1% AEP Design flood

Prepared By:

Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 27 Local Catchment Hazard Categorisation for 1% AEP Design flood.wor

Murrumbidgee COUNCIL



LEGEND

Local Catchment Model Extent

Location of Final Alignment of Upgraded Levee

Hazard Category

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

Notes:

Only depths greater than 0.10 metres are included in mapping. Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour. Actual inundation patterns may vary slightly during a flood event.

N

W E

S

Scale 1:8,500 (at A3)

0 0.2 0.4

Km

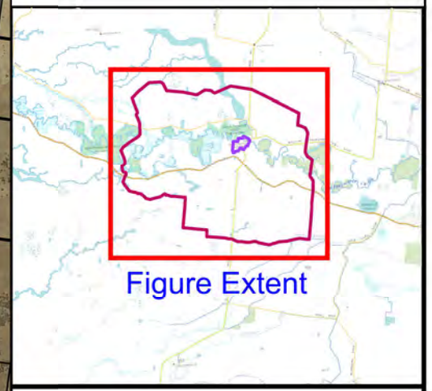
Figure 28: Local Catchment Hazard Categorisation for Extreme Design flood

Prepared By:

Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 28 Local Catchment Hazard Categorisation for Extreme Design flood.wor

Murrumbidgee COUNCIL



LEGEND

- Study area
- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee

Hazard Category

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

Notes:

Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour. Actua inundation patterns may vary slightly during a flood event.

N

W E

S

Scale 1:82,000 (at A3)

0 2.0 4.0

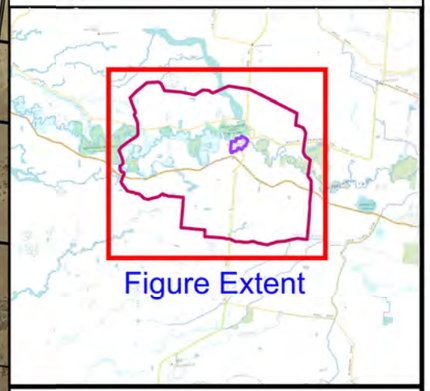
Km

Figure 29
Murrumbidgee River main stream Hazard Categorisation for 5% AEP Design flood

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 29 Murrumbidgee River mainstream Hazard Categorisation for 5% AEP Design flood.wor

Murrumbidgee COUNCIL



LEGEND

- Study area
- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee

Hazard Category

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

Notes:

Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour. Actual inundation patterns may vary slightly during a flood event.

N

W E

S

Scale 1:82,000 (at A3)

0 2.0 4.0

Km

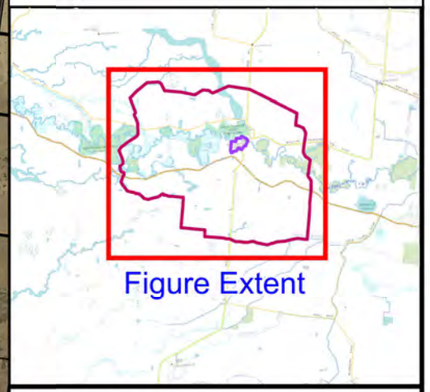
Figure 30
Murrumbidgee River main stream Hazard Categorisation for 1% AEP Design flood

Prepared By:

Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 30 Murrumbidgee River mainstream Hazard Categorisation for 1% AEP Design flood.wor

Murrumbidgee COUNCIL



LEGEND

- Study area
- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee

Hazard Category

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

Notes:

Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour. Actual inundation patterns may vary slightly during a flood event.

N
W E
S

Scale 1:82,000 (at A3)

0 2.0 4.0

Km

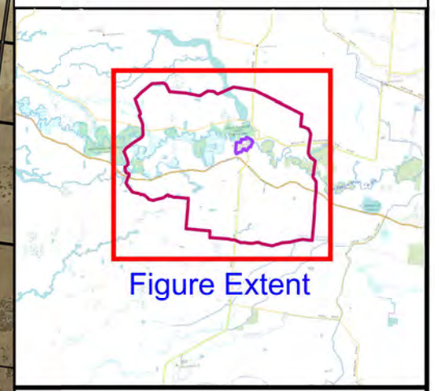
Figure 31
Murrumbidgee River main stream Hazard Categorisation for Extreme Design flood

Prepared By:

Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 31 Murrumbidgee River mainstream Hazard Categorisation for Extreme Design flood.wor

Murrumbidgee COUNCIL



LEGEND

- Study Area
- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee

Hydraulic Category

- Flood Fringe
- Flood Storage
- Floodway

Notes:

Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour. Actual inundation patterns may vary slightly during a flood event.

N W E S

Scale 1:82,000 (at A3)

0 2.0 4.0

Km

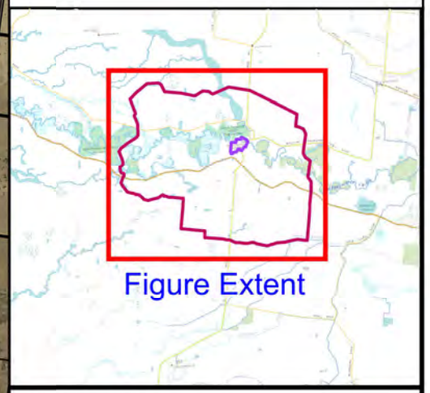
Figure 32
Murrumbidgee River main stream Hydraulic categorisation for 5% AEP Design flood

Prepared By:

Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 32 Murrumbidgee River mainstream Hydraulic categorisation for 5% AEP Design flood.wor

Murrumbidgee COUNCIL



LEGEND

- Study Area
- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee

Hydraulic Category

- Flood Fringe
- Flood Storage
- Floodway

Notes:

Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour. Actua inundation patterns may vary slightly during a flood event.

N

W E

S

Scale 1:82,000 (at A3)

0 2.0 4.0

Km

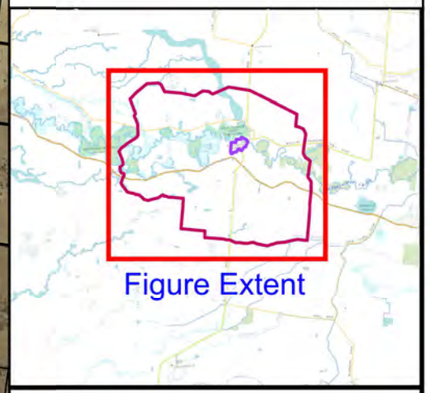
Figure 33
Murrumbidgee River main stream Hydraulic categorisation for 1% AEP Design flood

Prepared By:

Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 33 Murrumbidgee River mainstream Hydraulic categorisation for 1% AEP Design flood.wor

Murrumbidgee COUNCIL



LEGEND

- Study Area
- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee

Hydraulic Category

- Flood Fringe
- Flood Storage
- Floodway

Notes:

Inundation patterns and/or peak flood levels shown for design events are based on best available estimates of flood behaviour. Actua inundation patterns may vary slightly during a flood event.

N

W E

S

Scale 1:82,000 (at A3)

0 2.0 4.0

Km

Figure 34
Murrumbidgee River main stream Hydraulic categorisation for extreme Design flood

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

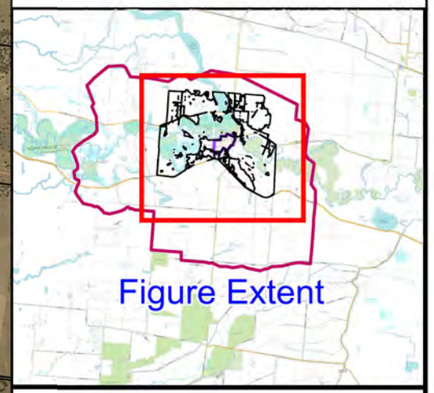
File Name:Figure 34 Murrumbidgee River mainstream Hydraulic categorisation for Extreme Design flood.wor

GRIFFITH CITY COUNCIL

LEETON SHIRE COUNCIL

MURRUMBIDGEE

Murrumbidgee COUNCIL



LEGEND

- Local Flood Planning Area
- Riverine Flood Planning Area
- Areas currently zoned RU5 and/or R5
- Location of Final Alignment of Upgraded Levee

Notes:

N

W E

S

Scale 1:50,000 (at A3)

0 2.0 4.0

Km

Figure 35.1: Murrumbidgee River FPA

Prepared By:

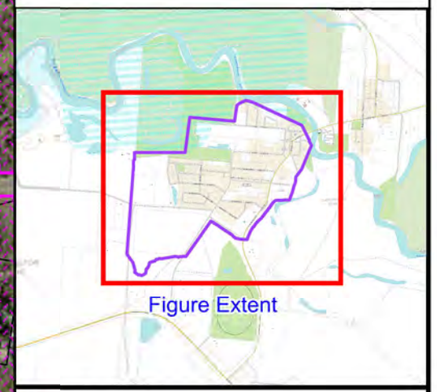
Catchment Simulation Solutions

Suite 10.01, 70 Phillip St

Sydney, NSW 2000

File Name Figure 35 Murrumbidgee River FPA.wor

Murrumbidgee COUNCIL



LEGEND

- Local Flood Planning Area
- Riverine Flood Planning Area
- Location of Final Alignment of Upgraded Levee

Notes:

N
W E
S

Scale 1:8,500 (at A3)

0 0.2 0.4

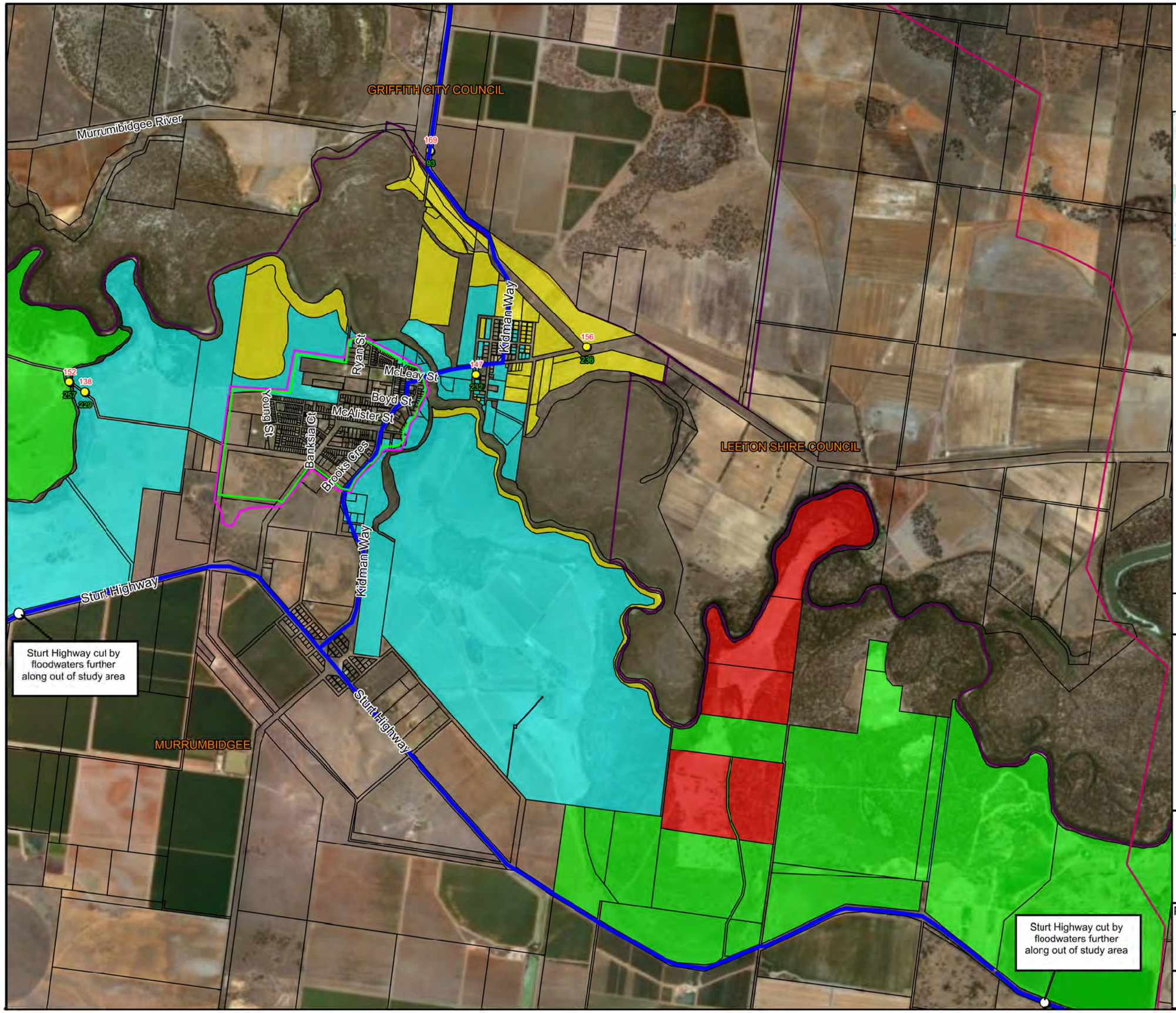
Km

Figure 35.2: Local Catchment FPA

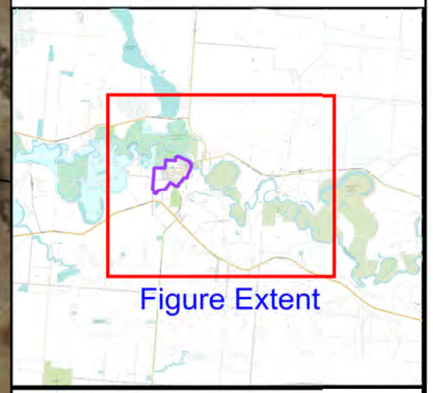
Prepared By:

Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 35 Local Catchment FPA.wor



Murrumbidgee COUNCIL



LEGEND

- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee
- Flooded Isolated Submerged
- Flooded Exit Route Overland Escape
- Flooded Isolated Elevated
- Flooded Exit Route Rising Road
- Indirect Consequences
- No Flood Impacts
- 111 Time Road First Cut (hr)
- 250 Duration of Road Cut (hr)

Notes:

N
W E
S

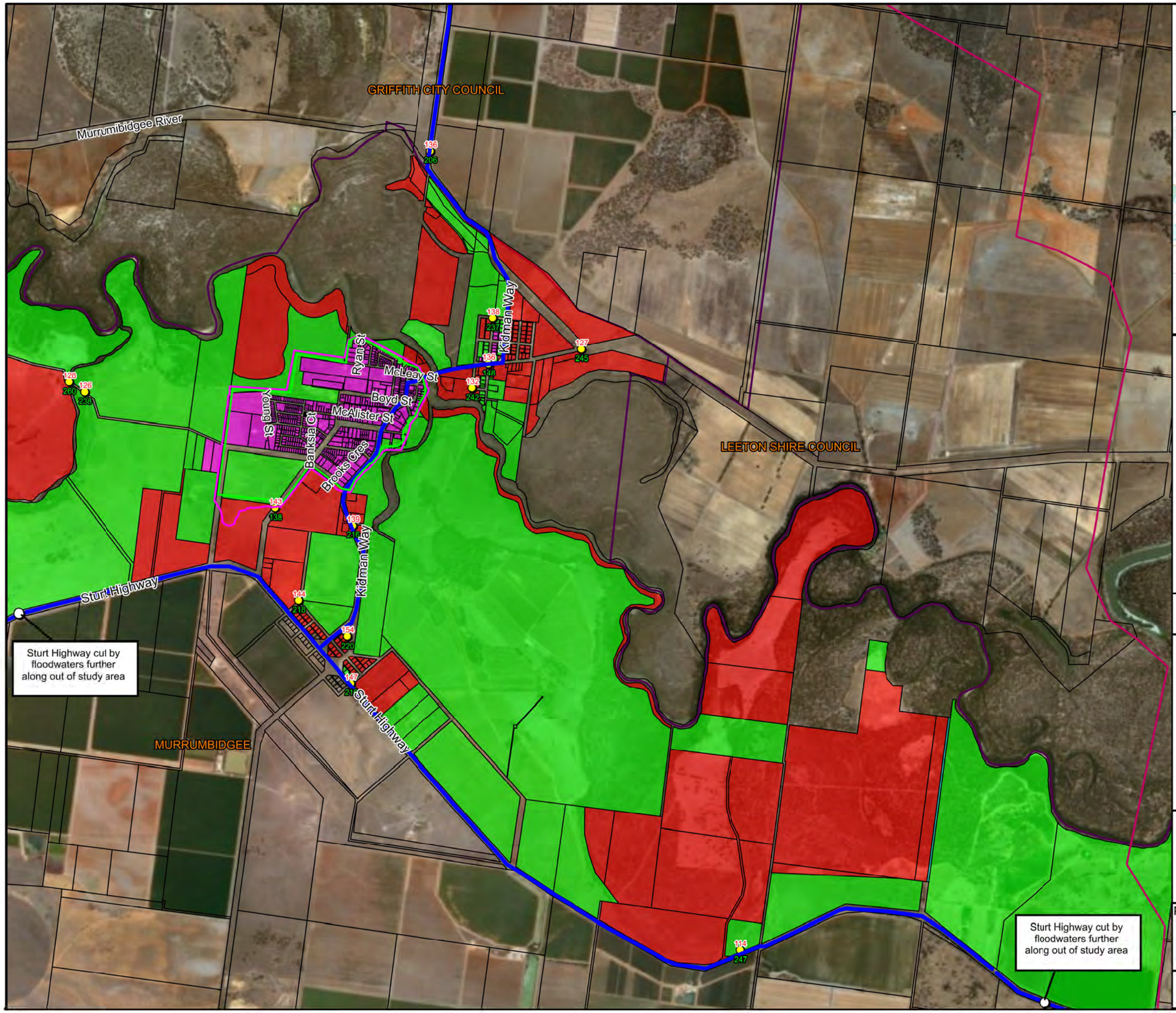
Scale 1:36,000 (at A3)

0 1.0 2.0 Km

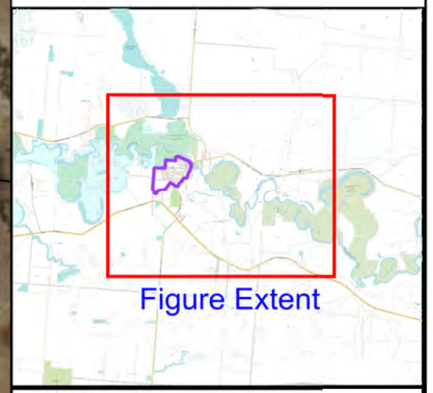
Figure 36: Emergency response classification for 5% AEP Design flood event

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 36 ERC for 5% AEP Design flood event.WOR



Murrumbidgee COUNCIL



LEGEND

- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee
- Flooded Isolated Submerged
- Flooded Exit Route Overland Escape
- Flooded Isolated Elevated
- Flooded Exit Route Rising Road
- Indirect Consequences
- No Flood Impacts
- 111 Time Road First Cut (hr)
- 220 Duration of Road Cut (hr)

Notes:

N
W E
S

Scale 1:36,000 (at A3)

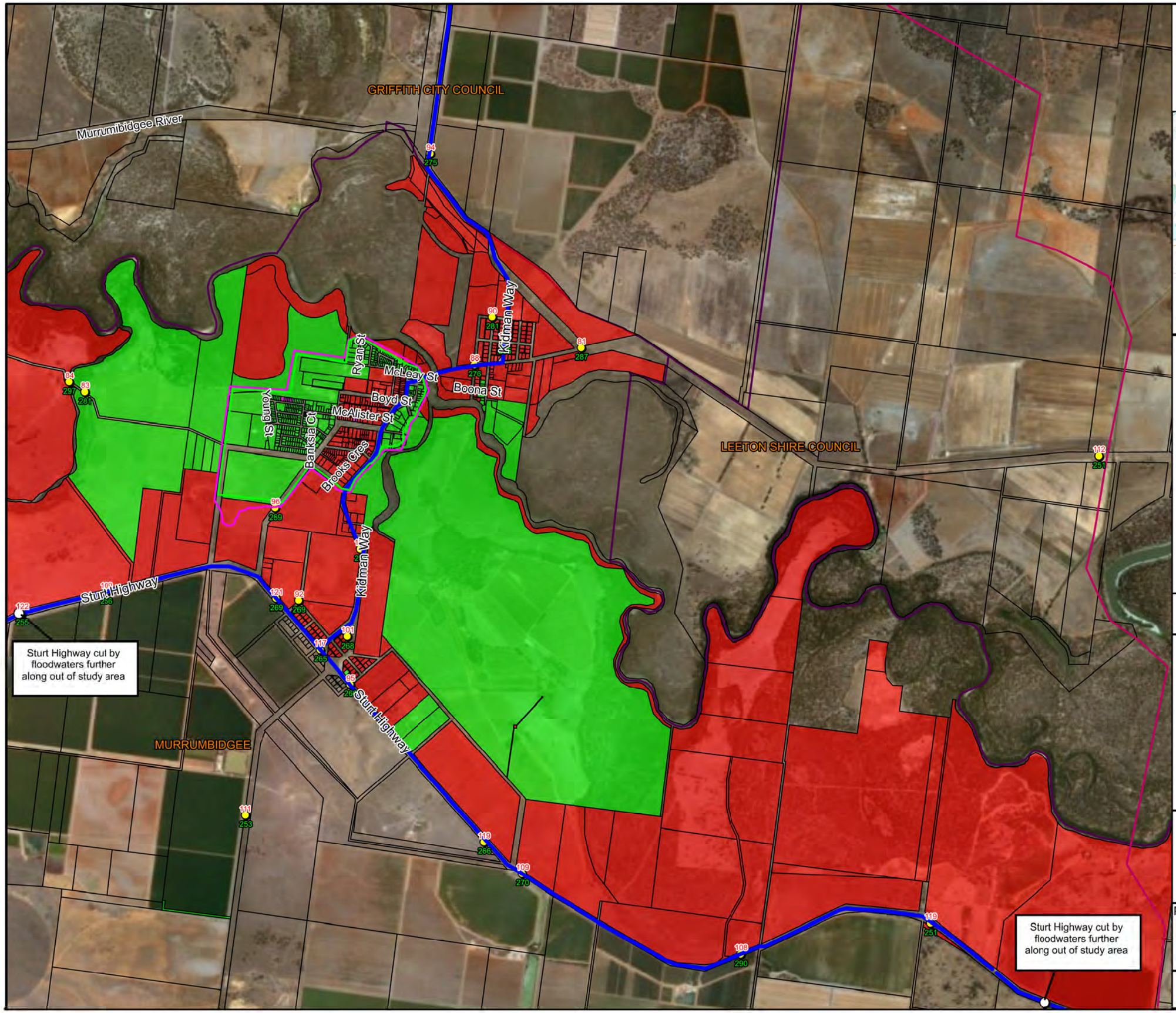
0 1.0 2.0

Km

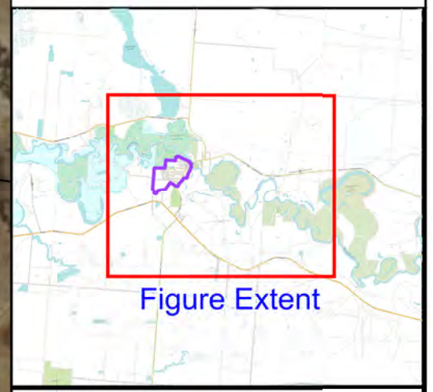
Figure 37: Emergency response classification for 1% AEP Design flood event

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 37 ERC for 1% AEP Design flood event.WOR



Murrumbidgee COUNCIL



LEGEND

- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee
- Flooded Isolated Submerged
- Flooded Exit Route Overland Escape
- Flooded Isolated Elevated
- Flooded Exit Route Rising Road
- Indirect Consequences
- No Flood Impacts
- 111 Time Road First Cut (hr)
- 120 Duration of Road Cut (hr)

Notes:

N
W E
S

Scale 1:36,000 (at A3)

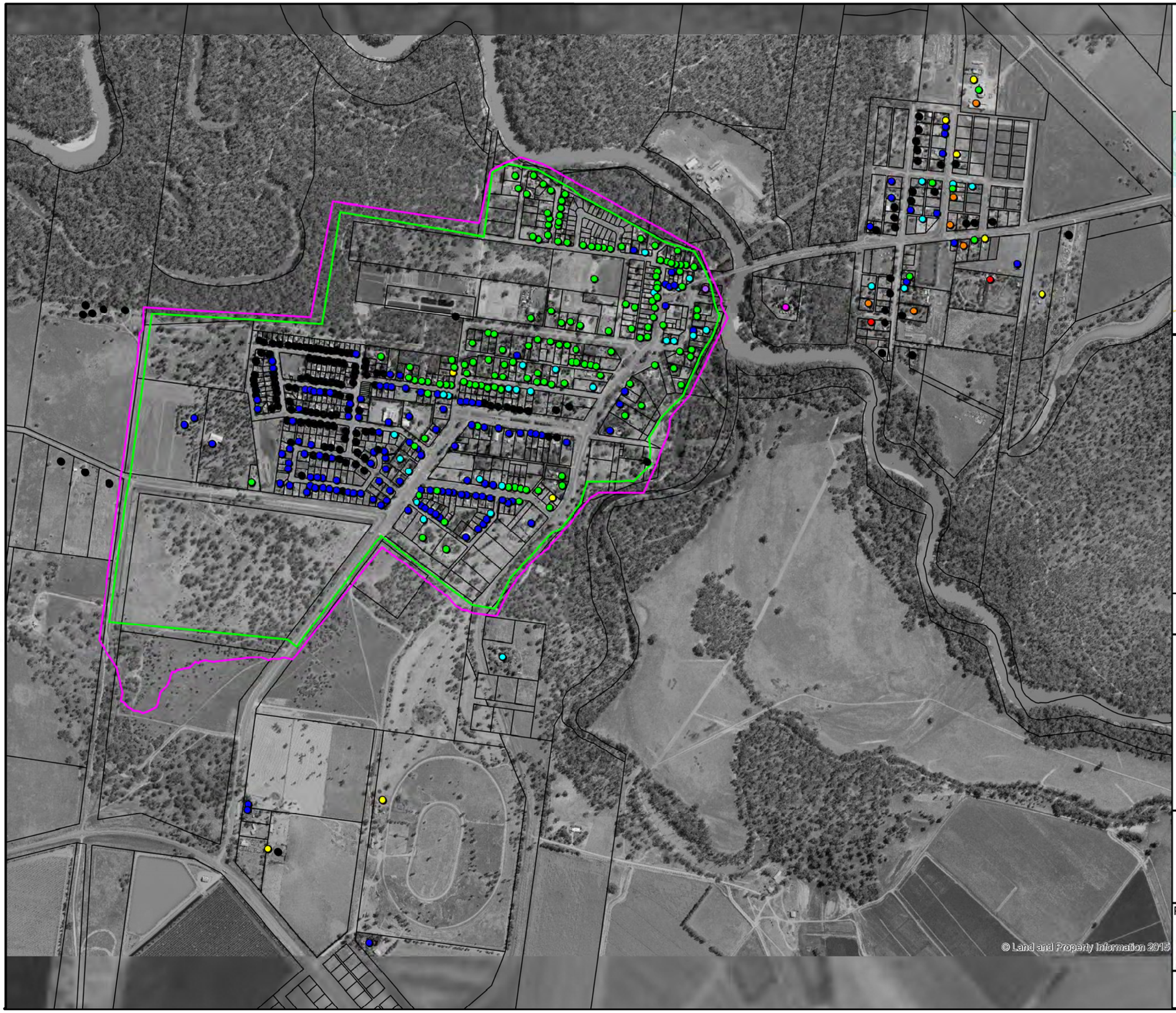
0 1.0 2.0

Km

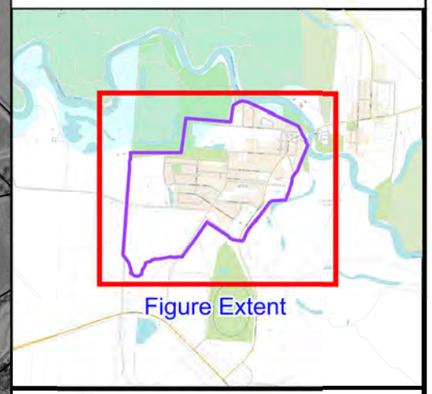
Figure 38: Emergency response classification for Extreme Design flood event

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 38 ERC for Extreme Design flood event.WOR



Murrumbidgee COUNCIL



LEGEND

- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee

Above Floor Frequency

- Never Above Floor Level
- Extreme Flood Event
- 0.2% AEP
- 0.5% AEP
- 1% AEP
- 2% AEP
- 5% AEP
- 10% AEP
- 20% AEP

Notes:

N

W E

S

Scale 1:12,000 (at A3)

0 0.3 0.6

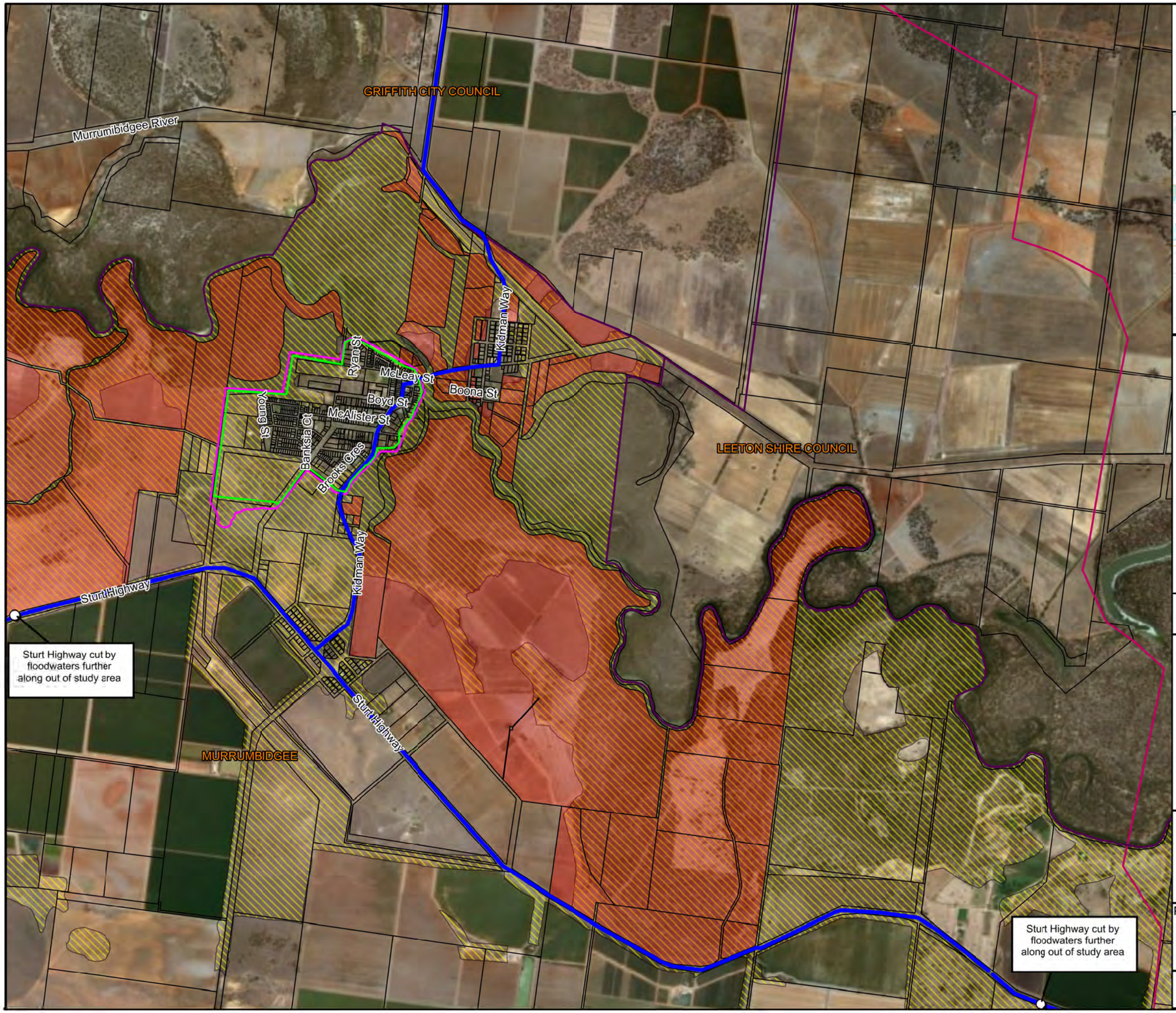
Km

Figure 39: Frequency of above floor flooding

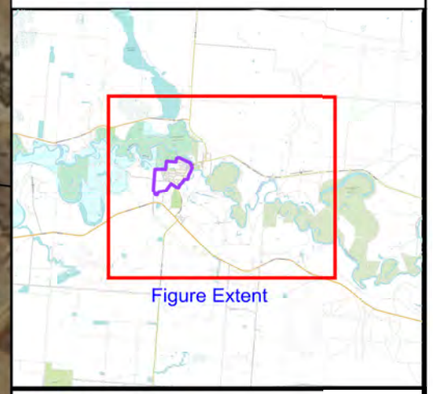
Prepared By:

Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 39:Frequency of above floor flooding.wor



Murrumbidgee COUNCIL



LEGEND

- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee
- Biodiversity
- High Flood Risk Precinct

Notes:

N
W E
S

Scale 1:36,000 (at A3)

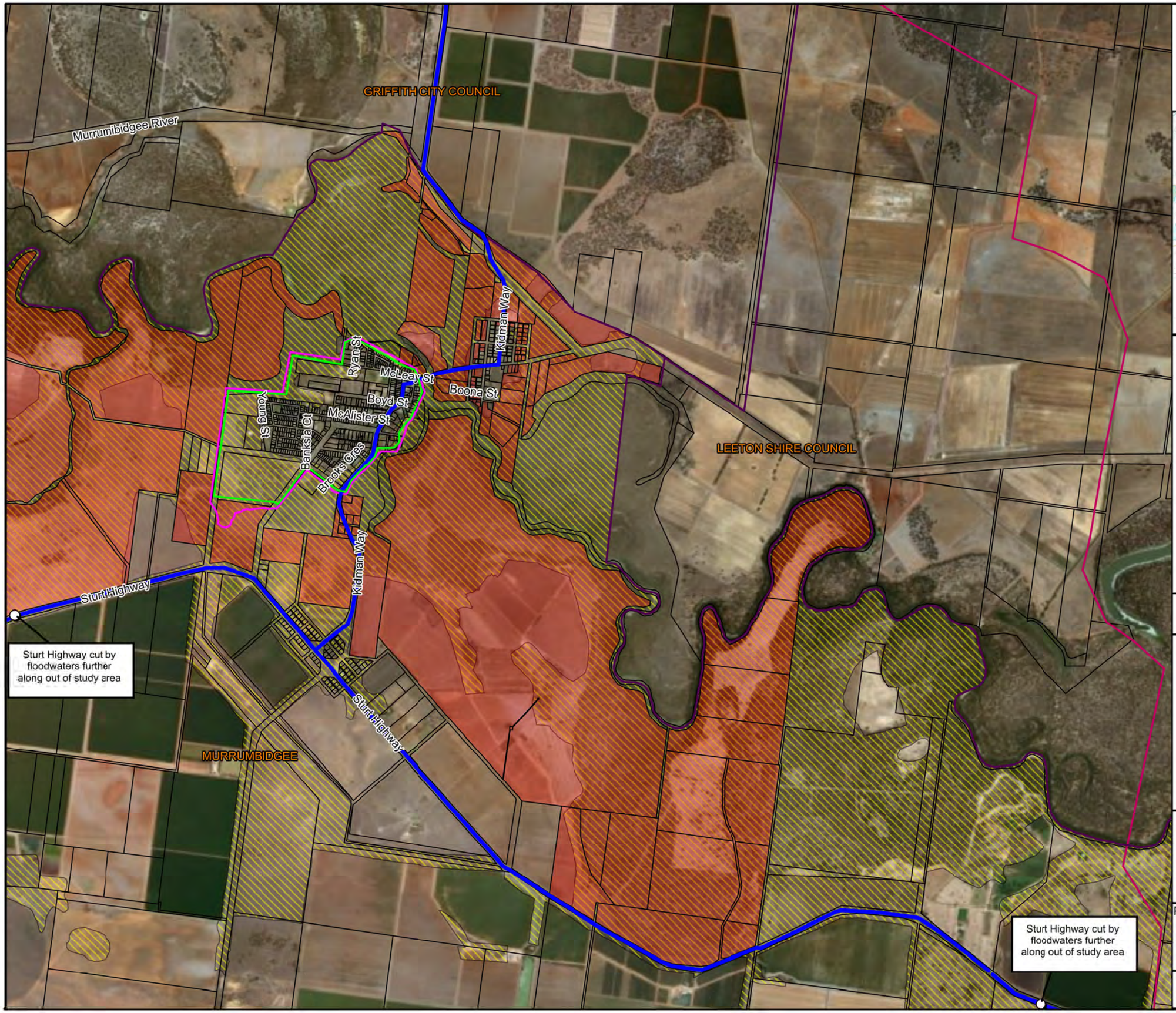
0 1.0 2.0

Km

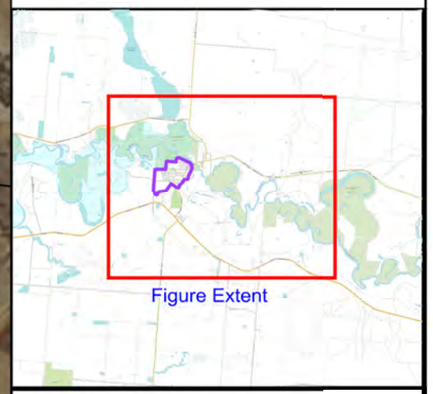
Figure 40:
High Flood Risk Precinct in the 1% AEP Design flood event

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 40 High Flood Risk Precinct 1% AEP Design flood event.WOR



Murrumbidgee COUNCIL



LEGEND

- Local Catchment Model Extent
- Location of Final Alignment of Upgraded Levee
- Biodiversity
- High Flood Risk Precinct

Notes:

N
W E
S

Scale 1:36,000 (at A3)

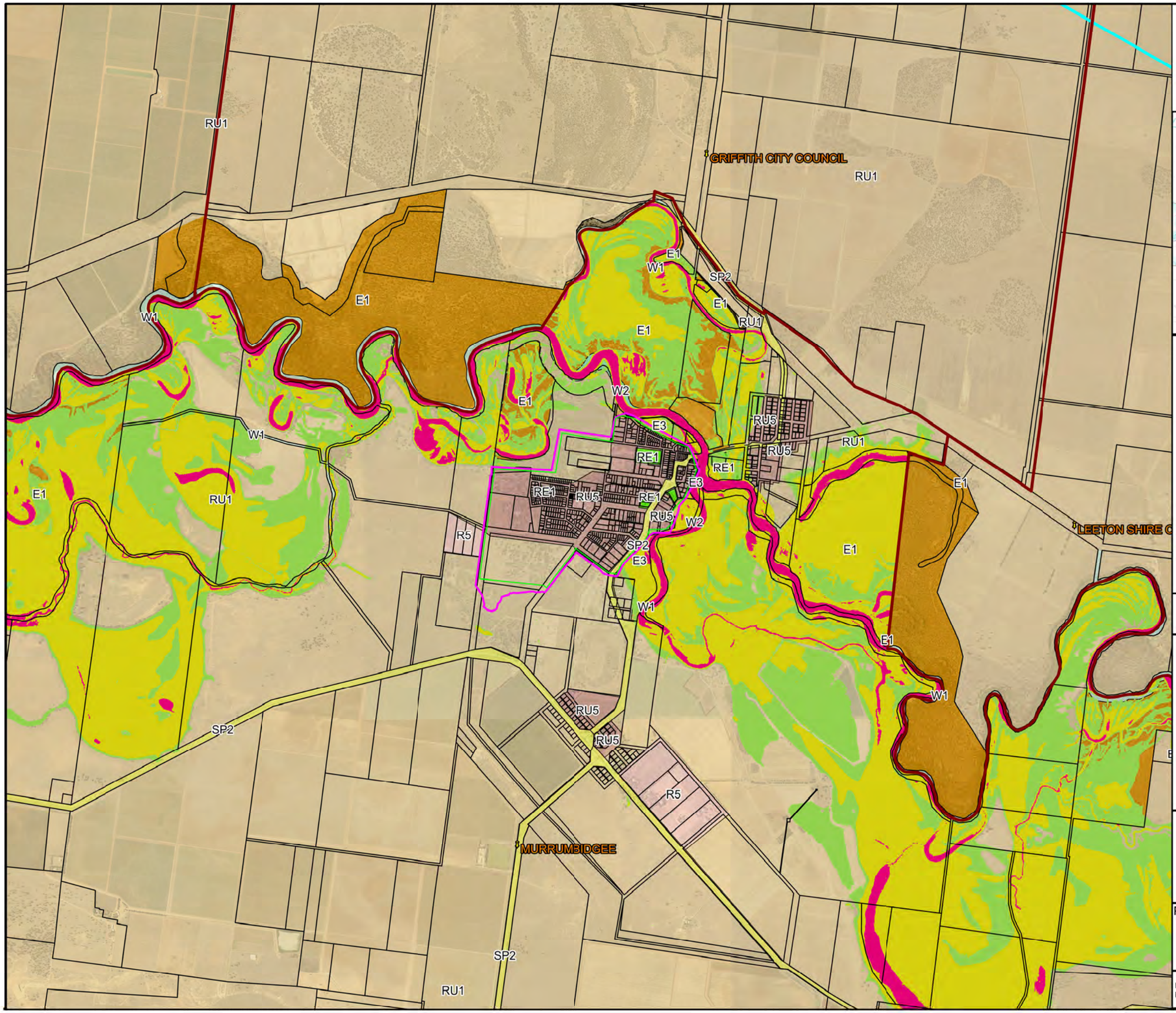
0 1.0 2.0

Km

Figure 41:
High Flood Risk Precinct in the Extreme Design flood event

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 41 High Flood Risk Precinct Extreme Design flood event.WOR



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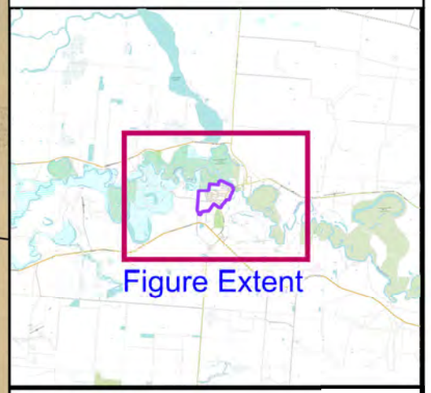

LEGEND

Land Zone

Residential
- R5

Rural
- RU1
- RU5

Recreation
- RE1

Environmental
- E1
- E3

Waterways
- W1
- W2

Special Activities
- SP2

Hazard Category
- H4
- H5
- H6

Notes:

N
W E
S

Scale 1:35,000 (at A3)

0 1.0 2.0

Km

Figure 42
Compatibility of existing Land Use with Flood Hazard for 1% AEP

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 42 Compatibility of existing land use with flood hazard for 1% AEP.wor

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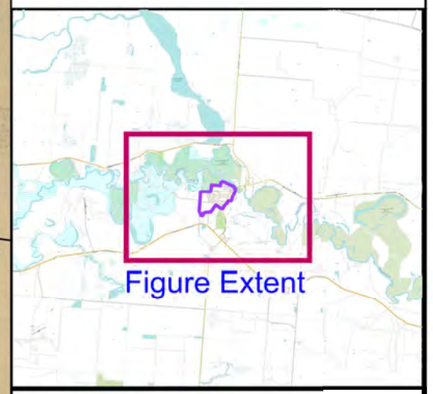

LEGEND

Land Zone

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- R5

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- RE1

Environmental
- E1
- E3

Waterways
- W1
- W2

Special Activities
- SP2

Hazard Category
- H4
- H5
- H6

Notes:

N W E S

Scale 1:35,000 (at A3)

0 1.0 2.0 Km

Figure 43
Compatibility of existing Land Use with Flood Hazard for Extreme Flood Event

Prepared By:
Catchment Simulation Solutions
Suite 10.01, 70 Phillip St
Sydney, NSW 2000

File Name:Figure 43 Compatibility of existing land use with flood hazard for extreme flood event.wor