

QUEANBEYAN-PALERANG REGIONAL COUNCIL

BRAIDWOOD FLOODPLAIN RISK MANAGEMENT STUDY AND PLAN

JUNE 2019

VOLUME 2 – FIGURES

DRAFT REPORT FOR PUBLIC EXHIBITION

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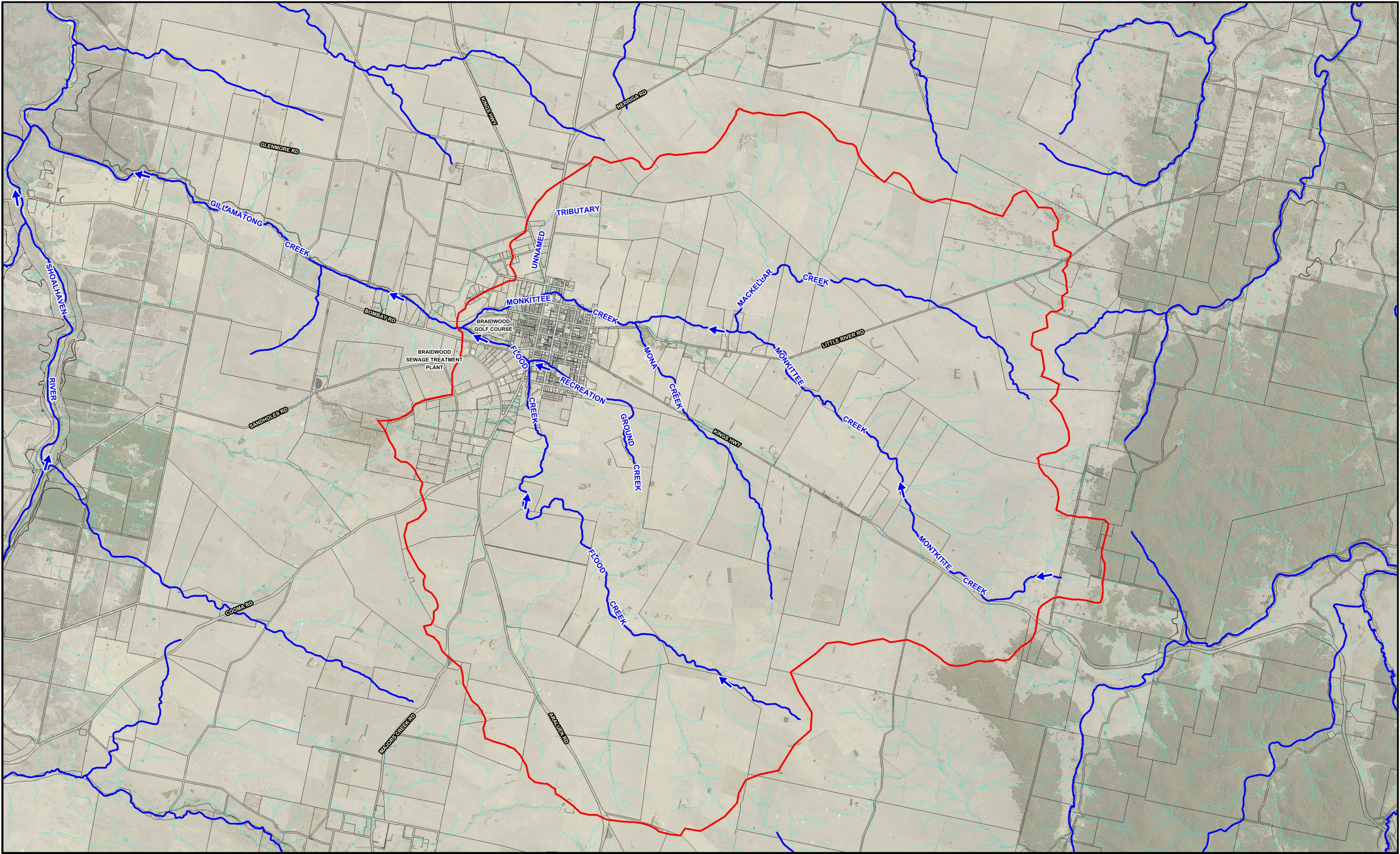
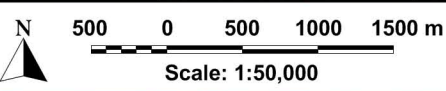
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LIST OF FIGURES

- 1.1 Location Plan
- 2.1 Existing Drainage System (3 Sheets)
- 2.2 Indicative Extent and Depths of Inundation – 1% AEP (3 Sheets)
- 2.3 Indicative Extent and Depths of Inundation – PMF (3 Sheets)
- 2.4 Design Water Surface Profiles (2 Sheets)
- 2.5 Time of Rise of Floodwaters
- 2.6 Indicative Extent of Inundation and Location of Vulnerable Development and Critical Infrastructure
- 2.7 Flood Hazard and Hydraulic Categorisation of Floodplain – 1% AEP (3 Sheets)
- 2.8 Sensitivity of Flood Behaviour to 20% Increase in Hydraulic Roughness Values – 1% AEP (3 Sheets)
- 2.9 Sensitivity of Flood Behaviour to Partial Blockage of Hydraulic Structures – 1% AEP (3 Sheets)
- 2.10 Potential Impact of Future Urbanisation on Flooding and Drainage Patterns – 1% AEP
- 2.11 Potential Impact of 10% Increase in Rainfall on Flooding and Drainage Patterns – 1% AEP (3 Sheets)
- 2.12 Potential Impact of 30% Increase in Rainfall on Flooding and Drainage Patterns – 1% AEP (3 Sheets)
- 2.13 Impact of Increased Rainfall Intensities on Extent of Flooding – 1% AEP (3 Sheets)
- 2.14 Palerang LEP 2014 Zoning
- 3.1 Impact of Recreation Ground Creek Flood Mitigation Scheme 1A on Flooding Behaviour
- 3.2 Impact of Recreation Ground Creek Flood Mitigation Scheme 1B on Flooding Behaviour
- 3.3 Impact of Recreation Ground Creek Flood Mitigation Scheme 1C on Flooding Behaviour
- 3.4 Impact of Recreation Ground Creek Flood Mitigation Scheme 2 on Flooding Behaviour
- 3.5 Impact of Recreation Ground Creek Flood Mitigation Schemes 1A and 2 on Flooding Behaviour
- 3.6 Impact of Recreation Ground Creek Flood Mitigation Schemes 1B and 2 on Flooding Behaviour
- 3.7 Impact of Recreation Ground Creek Flood Mitigation Schemes 1C and 2 on Flooding Behaviour
- 3.8 Flood Emergency Response Planning Classifications – 1% AEP (3 Sheets)
- 3.9 Flood Emergency Response Planning Classifications – PMF (3 Sheets)



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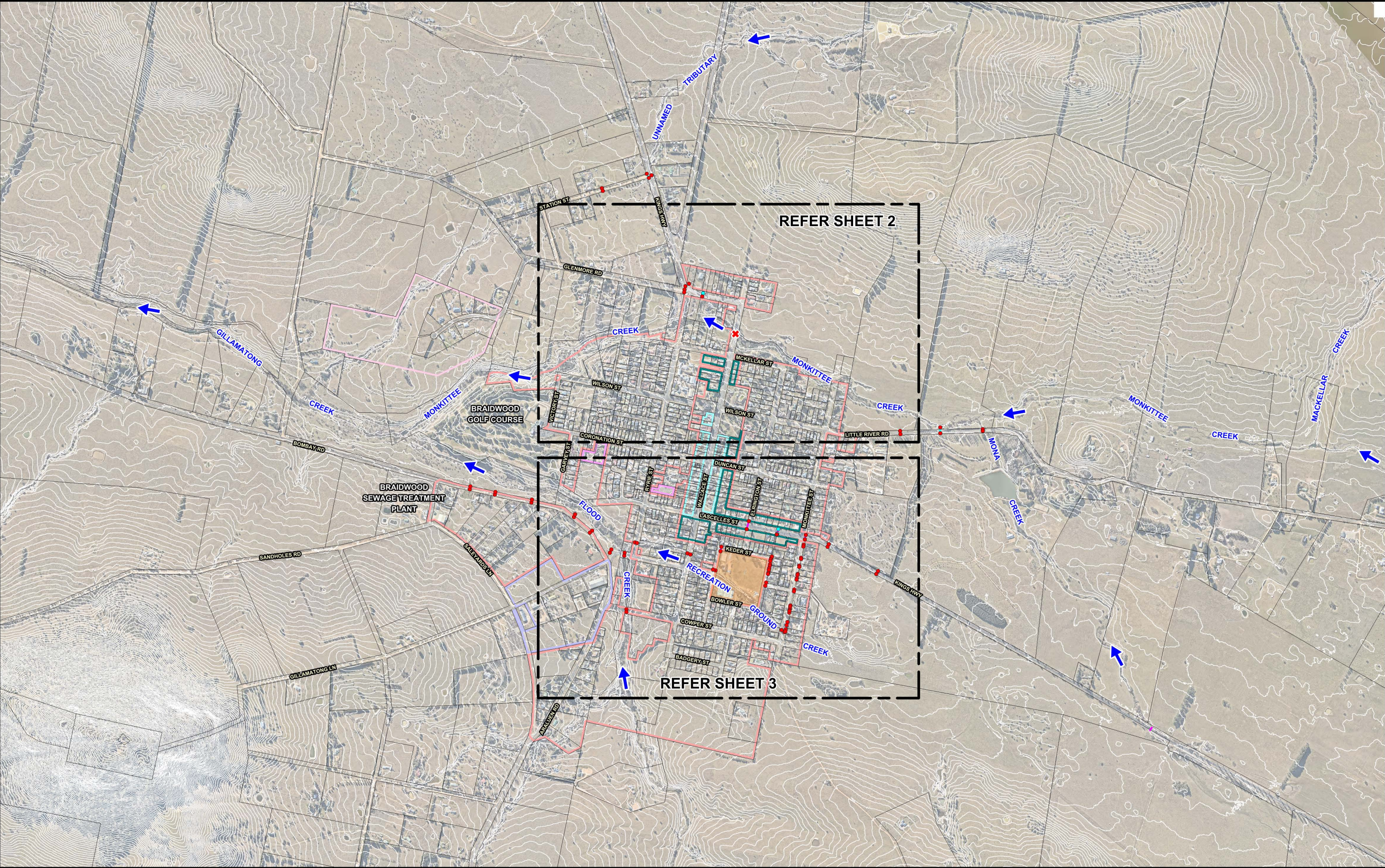
LEGEND

 Study Catchment

**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

Figure 1.1

LOCATION PLAN





150 0 150 300 450 m

Scale: 1:15,000

Lyall & Associates

NOTE:
Only these hydraulic structures which were incorporated in the hydraulic model are shown on this figure.

 Pipe < 450 mm Diameter	 Inlet Pit	 Local Centre	 General Residential
 Pipe ≥ 450 mm Diameter	 Junction Pit	 Mixed Use	 Low Density Residential
 Box Culvert	 Headwall	 Light Industrial	 Large Lot Residential
 Bridge		 Extent of Detailed Ground Survey Provided by Council	

**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

Figure 2.1
(Sheet 1 of 3)

EXISTING DRAINAGE SYSTEM



Lyall & Associates

NOTE:
Only these hydraulic structures which were incorporated in the hydraulic model are shown on this figure.

LEGEND

— Pipe < 450 mm Diameter	● Inlet Pit	 Local Centre	 General Residential
— Pipe ≥ 450 mm Diameter	● Junction Pit	 Mixed Use	 Low Density Residential
— Box Culvert	● Headwall	 Light Industrial	 Large Lot Residential
✕ Bridge			

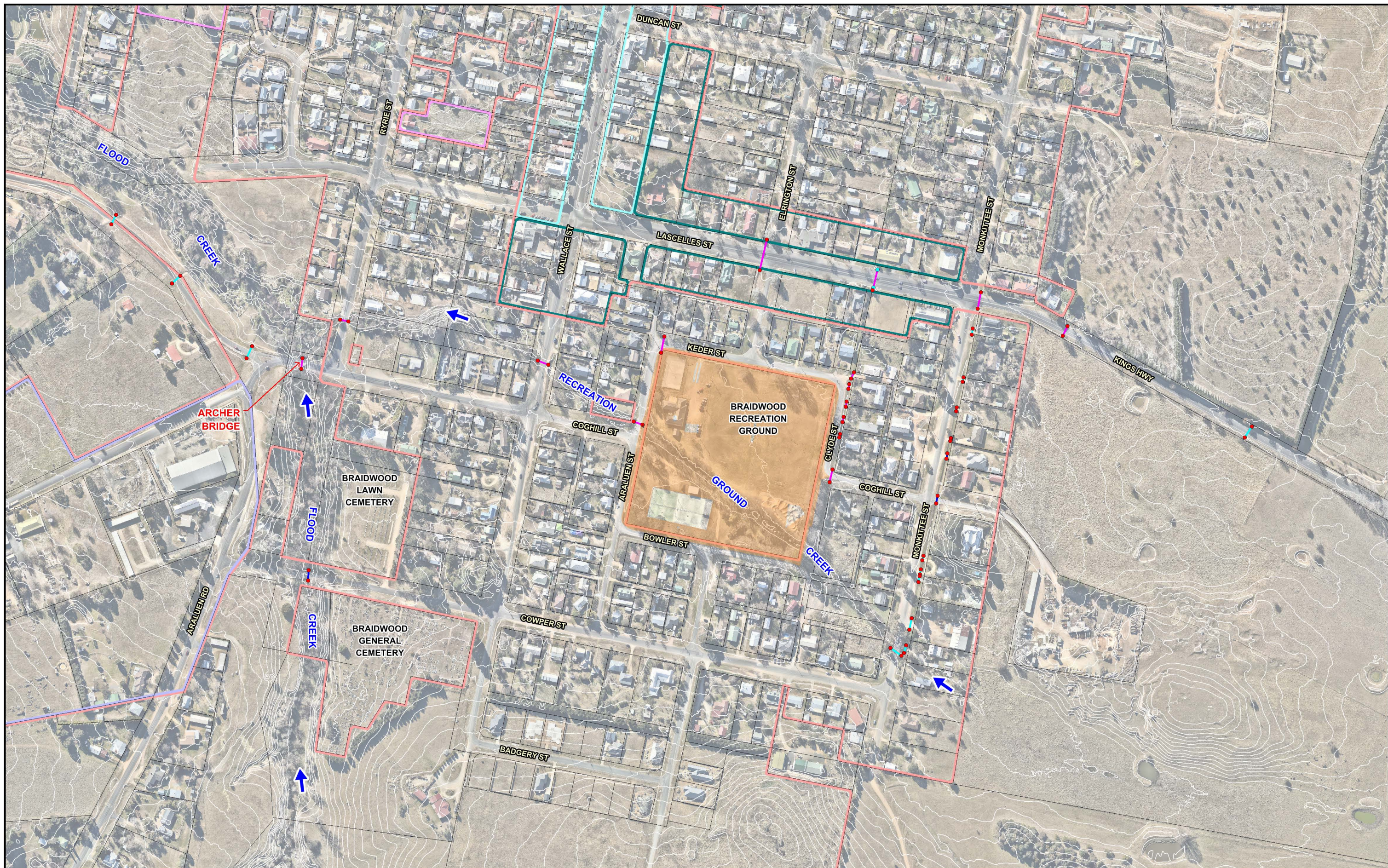
**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

Figure 2.1
(Sheet 2 of 3)

EXISTING DRAINAGE SYSTEM

Scale: 1:4,000

40 0 40 80 120 m



Lyall & Associates

NOTE:
Only these hydraulic structures which were incorporated in the hydraulic model are shown on this figure.

LEGEND

— Pipe < 450 mm Diameter	● Inlet Pit	 Local Centre	 General Residential
— Pipe ≥ 450 mm Diameter	● Junction Pit	 Mixed Use	 Low Density Residential
— Box Culvert	● Headwall	 Light Industrial	 Large Lot Residential
 Extent of Detailed Ground Survey Provided by Council			

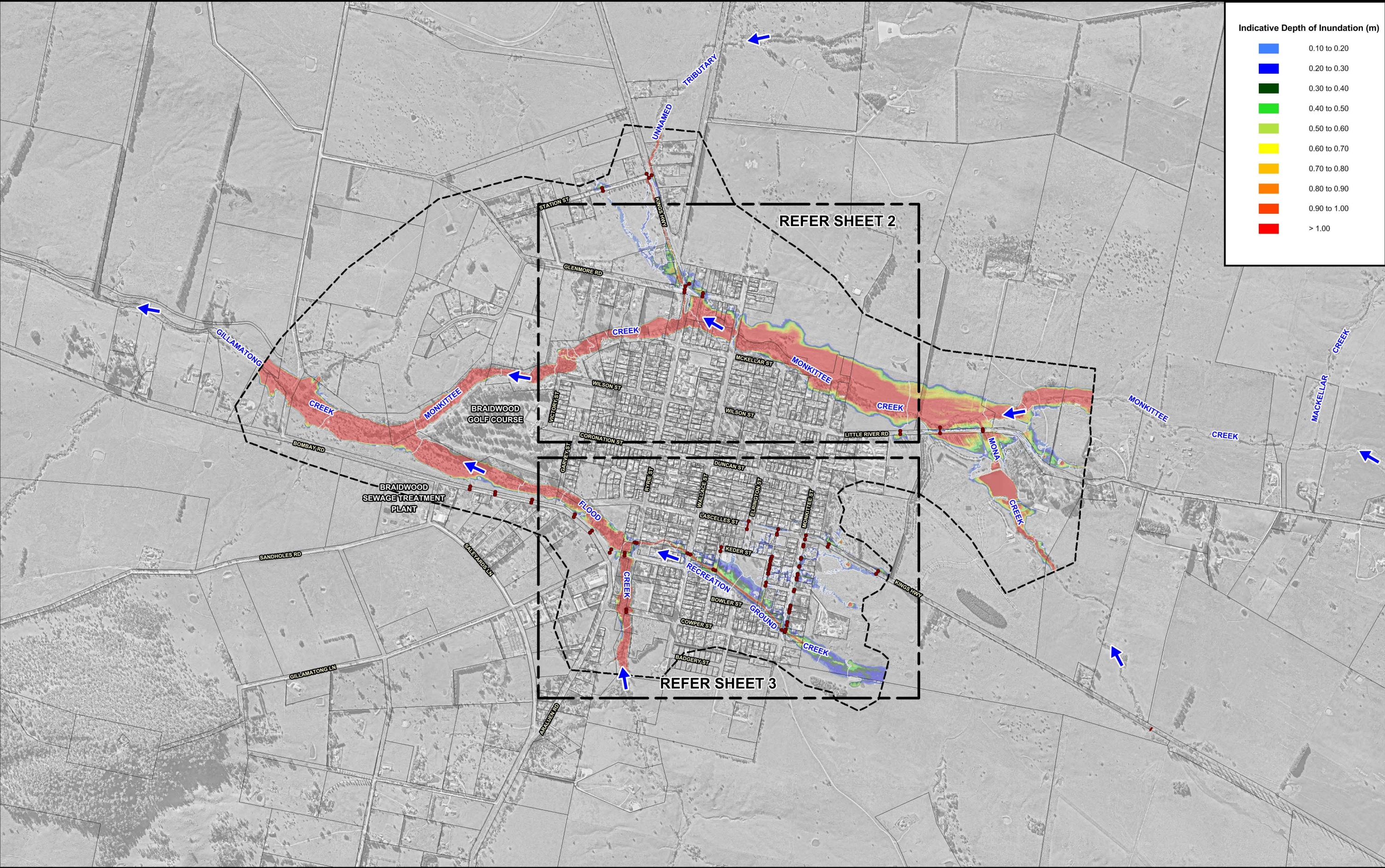
BRAIDWOOD FLOODPLAIN RISK MANAGEMENT STUDY AND PLAN

Figure 2.1
(Sheet 3 of 3)

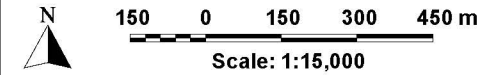
EXISTING DRAINAGE SYSTEM

Scale: 1:4,000

40 0 40 80 120 m



Indicative Depth of Inundation (m)	
■	0.10 to 0.20
■	0.20 to 0.30
■	0.30 to 0.40
■	0.40 to 0.50
■	0.50 to 0.60
■	0.60 to 0.70
■	0.70 to 0.80
■	0.80 to 0.90
■	0.90 to 1.00
■	> 1.00



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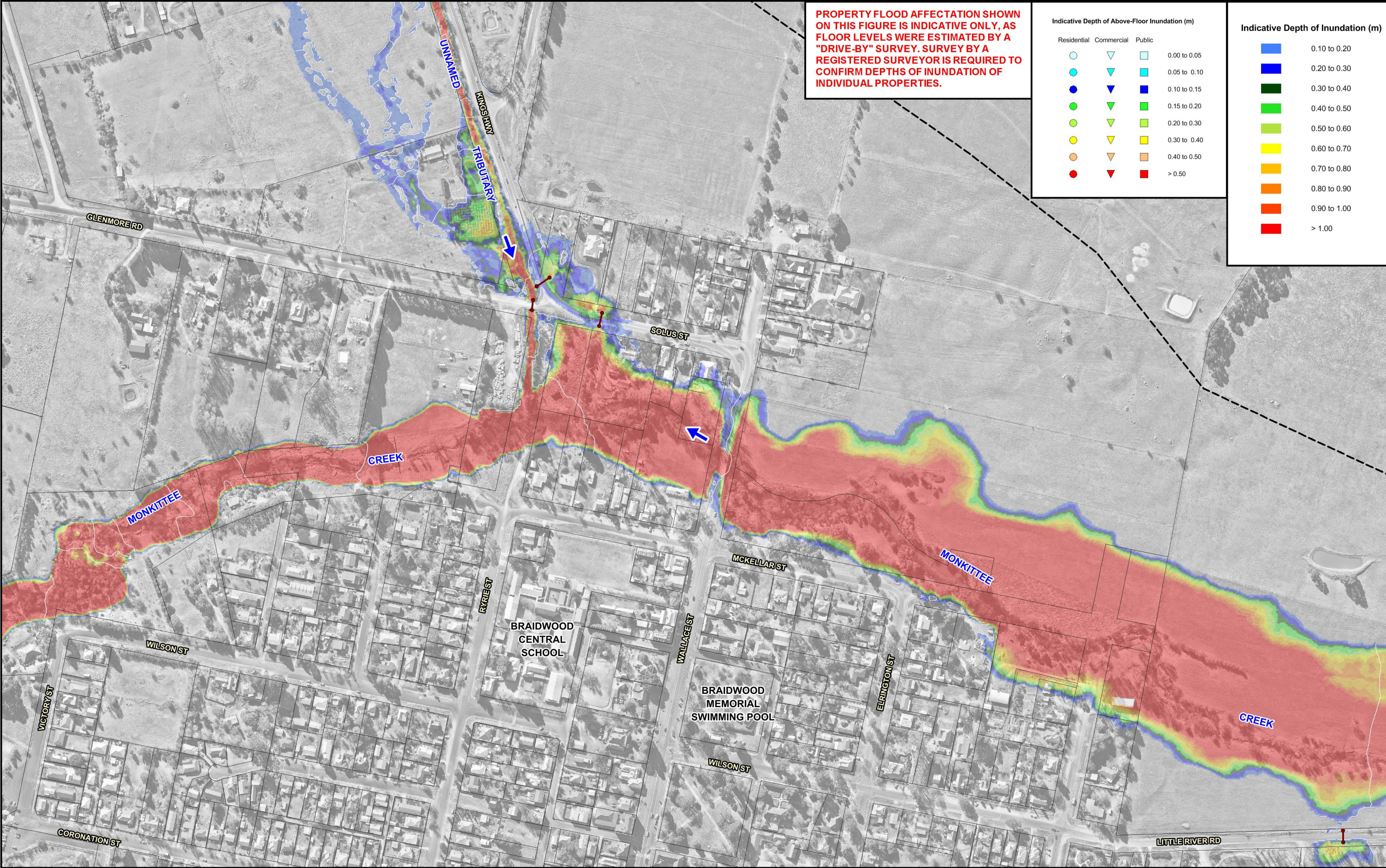
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.

Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.

- LEGEND**
- Modelled Stormwater Drainage System
 - Two-Dimensional Model Boundary
 - 575.0 Water Surface Elevation Contours (m AHD)

**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

Figure 2.2
(Sheet 1 of 3)
**INDICATIVE EXTENT AND DEPTHS OF INUNDATION
1% AEP**



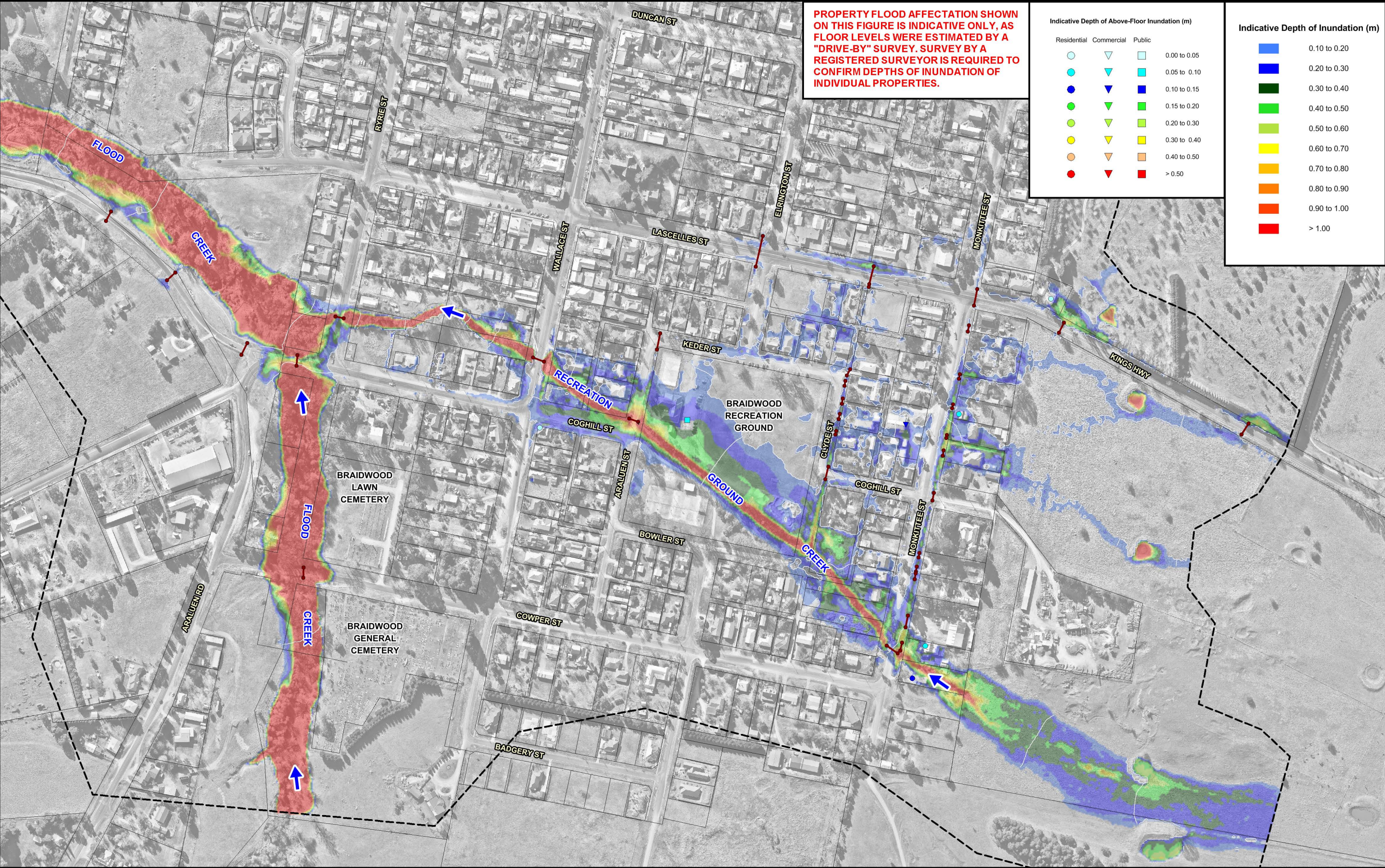
PROPERTY FLOOD AFFECTATION SHOWN ON THIS FIGURE IS INDICATIVE ONLY, AS FLOOR LEVELS WERE ESTIMATED BY A "DRIVE-BY" SURVEY. SURVEY BY A REGISTERED SURVEYOR IS REQUIRED TO CONFIRM DEPTHS OF INUNDATION OF INDIVIDUAL PROPERTIES.

Indicative Depth of Above-Floor Inundation (m)

Residential	Commercial	Public	
			0.00 to 0.05
			0.05 to 0.10
			0.10 to 0.15
			0.15 to 0.20
			0.20 to 0.30
			0.30 to 0.40
			0.40 to 0.50
			> 0.50

Indicative Depth of Inundation (m)

	0.10 to 0.20
	0.20 to 0.30
	0.30 to 0.40
	0.40 to 0.50
	0.50 to 0.60
	0.60 to 0.70
	0.70 to 0.80
	0.80 to 0.90
	0.90 to 1.00
	> 1.00



PROPERTY FLOOD AFFECTATION SHOWN ON THIS FIGURE IS INDICATIVE ONLY, AS FLOOR LEVELS WERE ESTIMATED BY A "DRIVE-BY" SURVEY. SURVEY BY A REGISTERED SURVEYOR IS REQUIRED TO CONFIRM DEPTHS OF INUNDATION OF INDIVIDUAL PROPERTIES.

Indicative Depth of Above-Floor Inundation (m)				Indicative Depth of Inundation (m)	
Residential	Commercial	Public			
			0.00 to 0.05		0.10 to 0.20
			0.05 to 0.10		0.20 to 0.30
			0.10 to 0.15		0.30 to 0.40
			0.15 to 0.20		0.40 to 0.50
			0.20 to 0.30		0.50 to 0.60
			0.30 to 0.40		0.60 to 0.70
			0.40 to 0.50		0.70 to 0.80
			> 0.50		0.80 to 0.90
					0.90 to 1.00
					> 1.00

4000120

Scale: 1:4,000

NOTE:

The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.

Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.

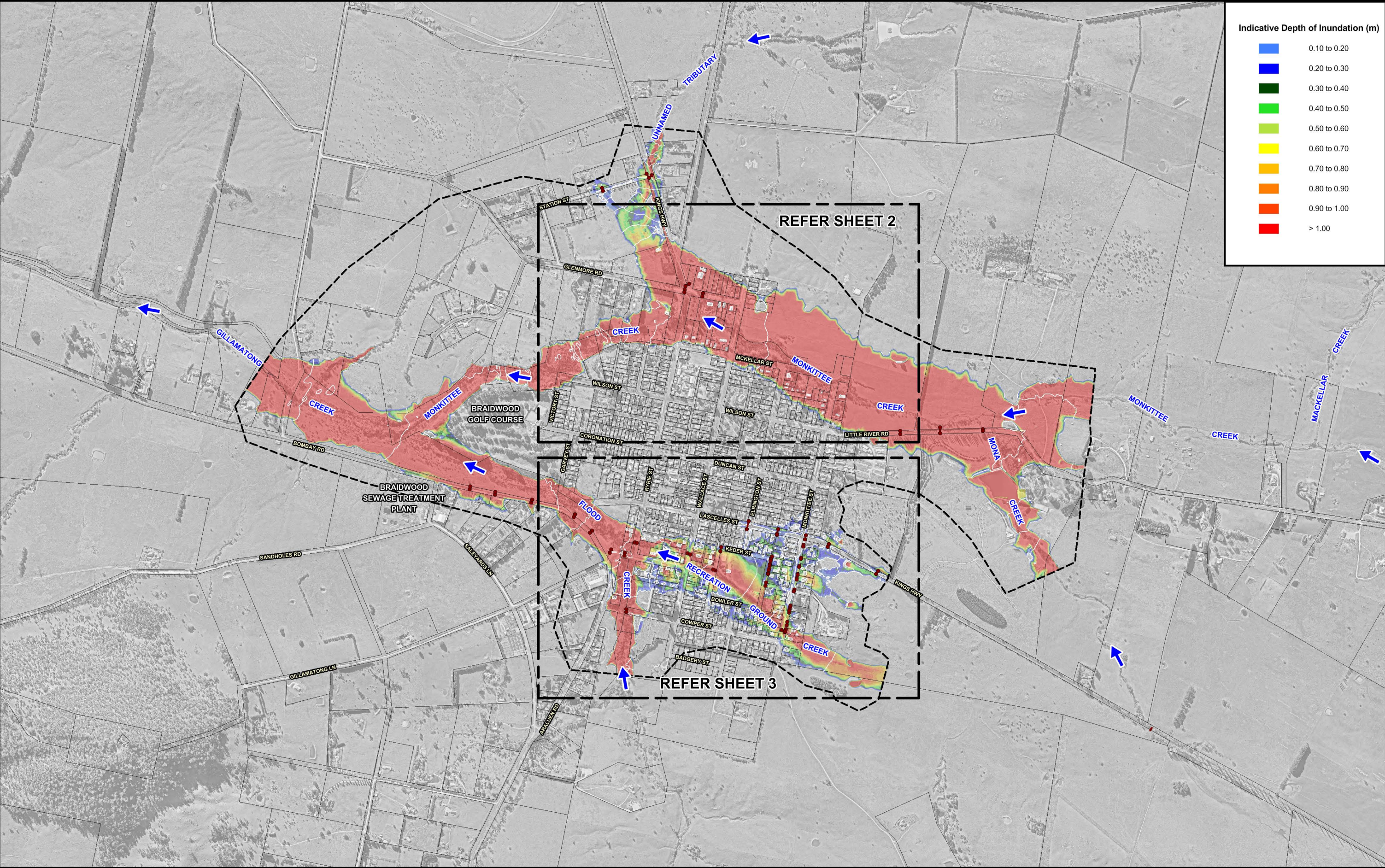
LEGEND

- Modelled Stormwater Drainage System
- Two-Dimensional Model Boundary
- Water Surface Elevation Contours (m AHD)

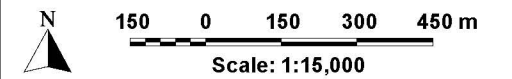
BRAIDWOOD FLOODPLAIN RISK MANAGEMENT STUDY AND PLAN

Figure 2.2
(Sheet 3 of 3)

INDICATIVE EXTENT AND DEPTHS OF INUNDATION
1% AEP



Indicative Depth of Inundation (m)	
■	0.10 to 0.20
■	0.20 to 0.30
■	0.30 to 0.40
■	0.40 to 0.50
■	0.50 to 0.60
■	0.60 to 0.70
■	0.70 to 0.80
■	0.80 to 0.90
■	0.90 to 1.00
■	> 1.00



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NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.

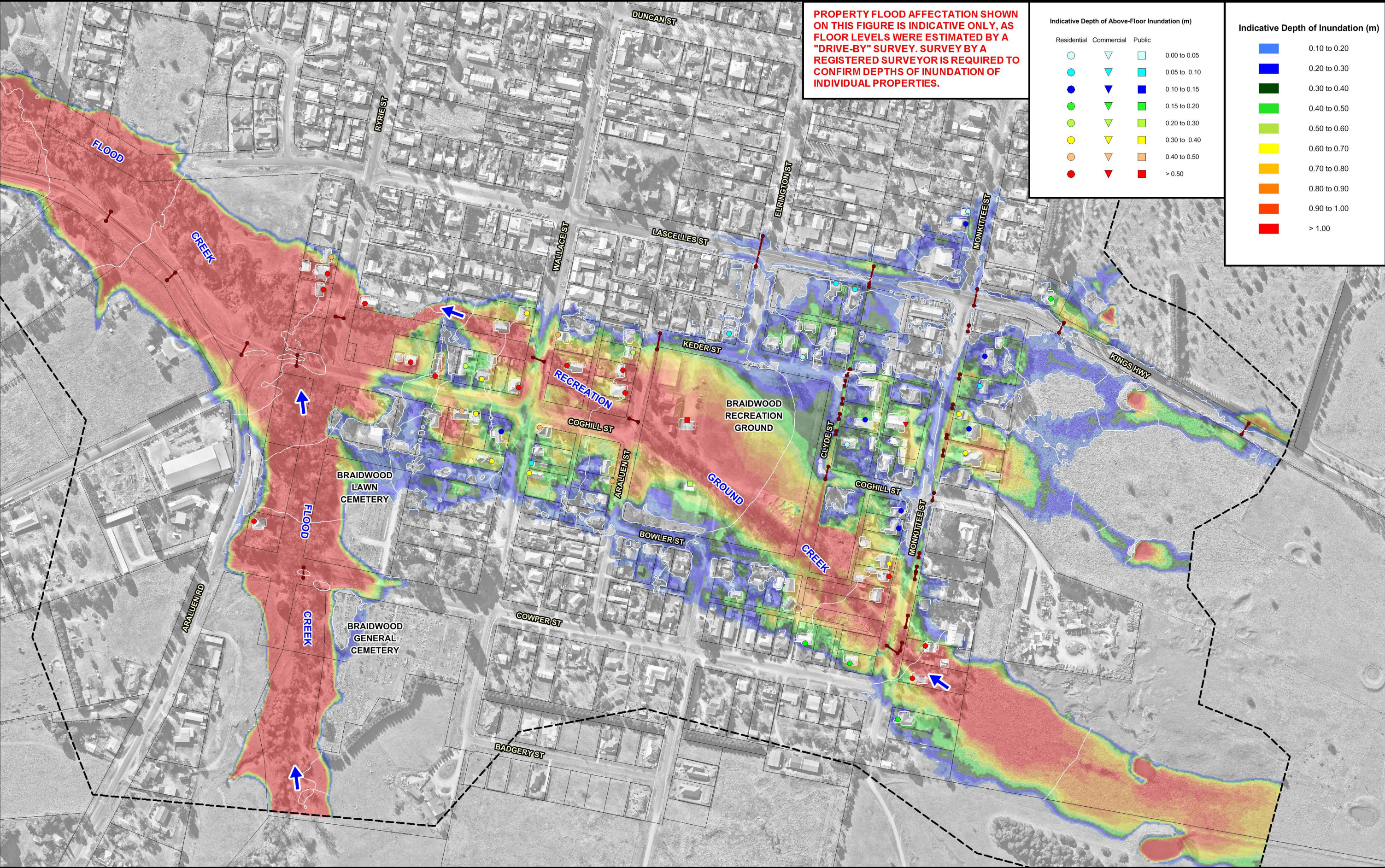
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.

- LEGEND**
- Modelled Stormwater Drainage System
 - Two-Dimensional Model Boundary
 - 575.0 Water Surface Elevation Contours (m AHD)

**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

Figure 2.3
(Sheet 1 of 3)

INDICATIVE EXTENT AND DEPTHS OF INUNDATION
PMF



PROPERTY FLOOD AFFECTATION SHOWN ON THIS FIGURE IS INDICATIVE ONLY, AS FLOOR LEVELS WERE ESTIMATED BY A "DRIVE-BY" SURVEY. SURVEY BY A REGISTERED SURVEYOR IS REQUIRED TO CONFIRM DEPTHS OF INUNDATION OF INDIVIDUAL PROPERTIES.

Indicative Depth of Above-Floor Inundation (m)				Indicative Depth of Inundation (m)	
Residential	Commercial	Public			
			0.00 to 0.05		0.10 to 0.20
			0.05 to 0.10		0.20 to 0.30
			0.10 to 0.15		0.30 to 0.40
			0.15 to 0.20		0.40 to 0.50
			0.20 to 0.30		0.50 to 0.60
			0.30 to 0.40		0.60 to 0.70
			0.40 to 0.50		0.70 to 0.80
			> 0.50		0.80 to 0.90
					0.90 to 1.00
					> 1.00

N

4000000040080012000

Scale: 1:4,000

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NOTE:

The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.

Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.

LEGEND

Modelled Stormwater Drainage System

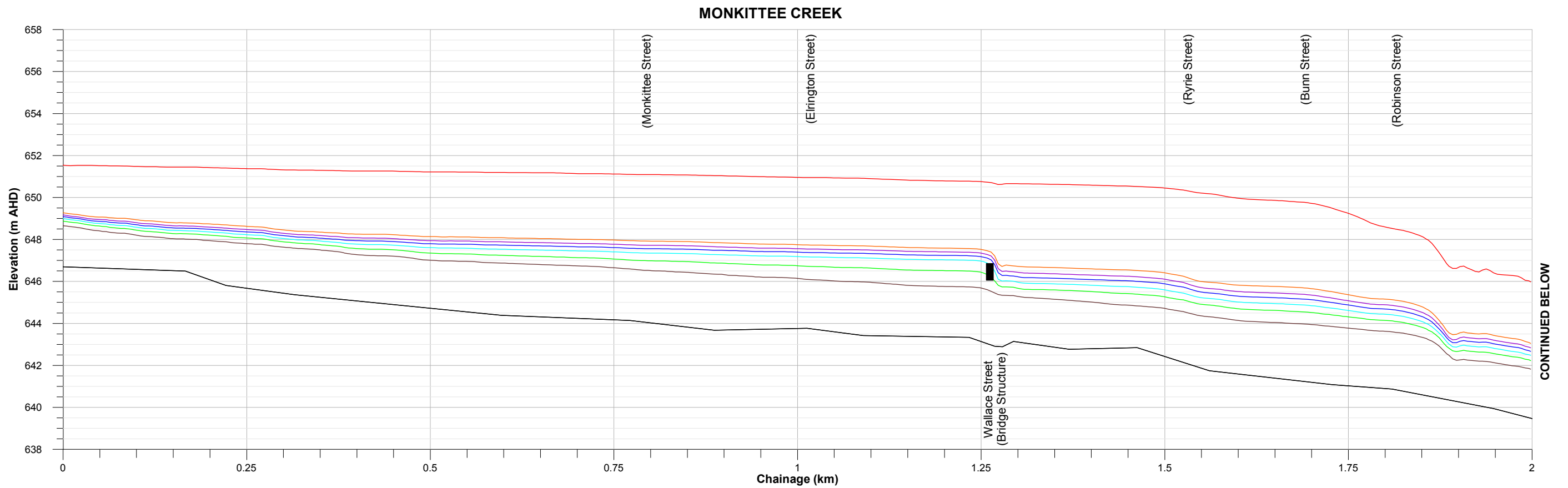
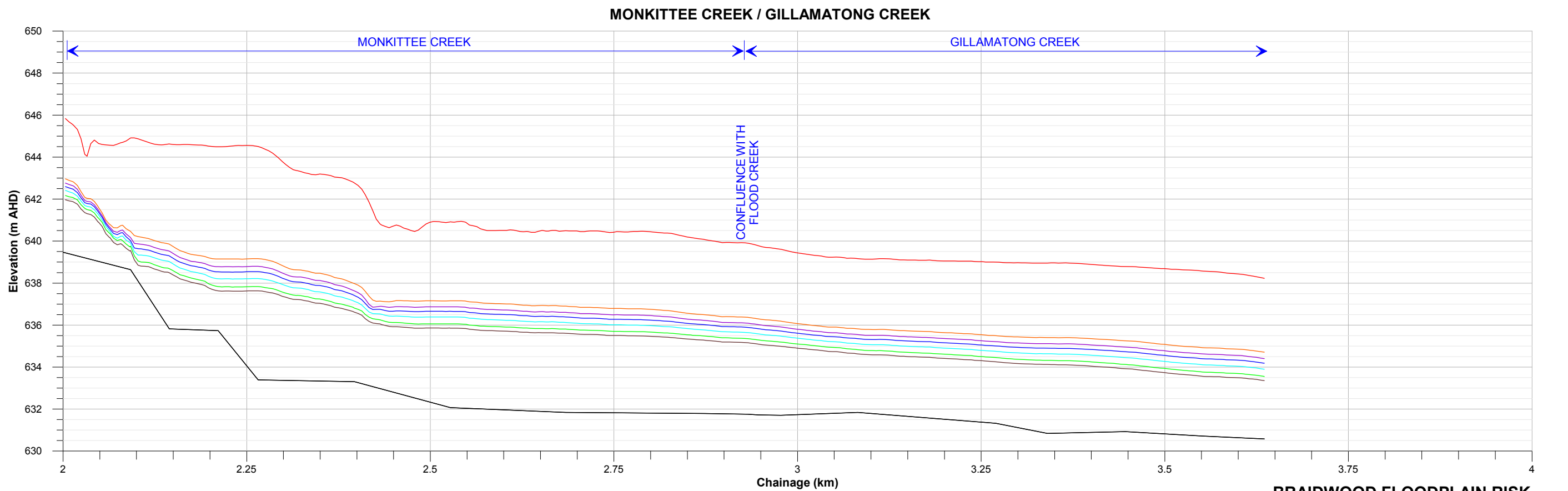
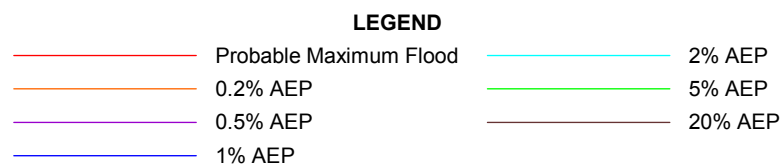
Two-Dimensional Model Boundary

Water Surface Elevation Contours (m AHD)

BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN

Figure 2.3
(Sheet 3 of 3)

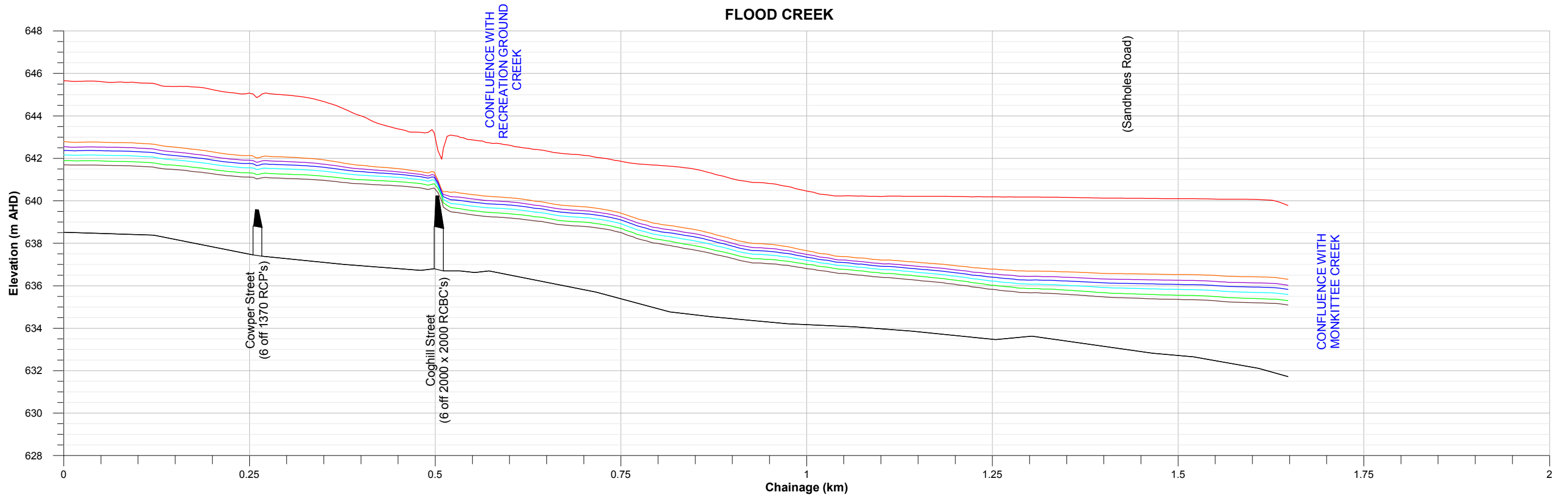
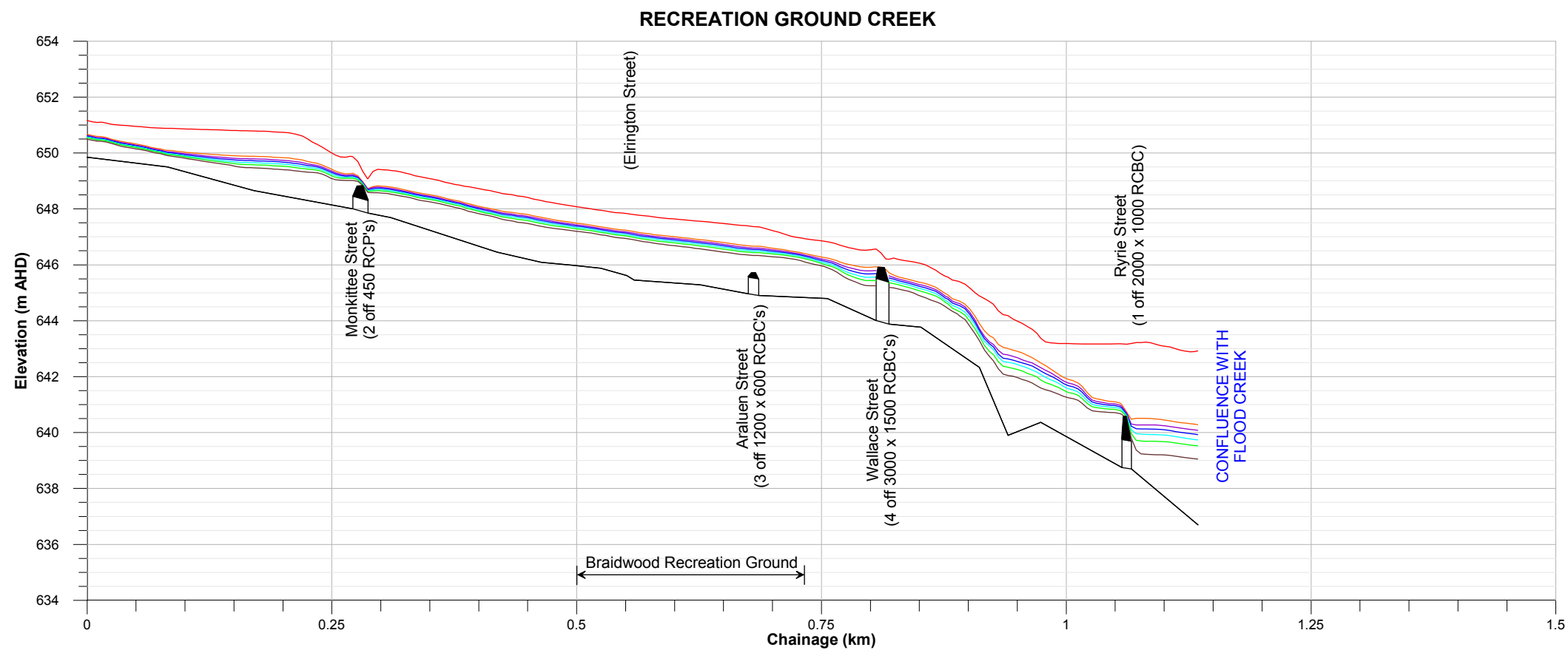
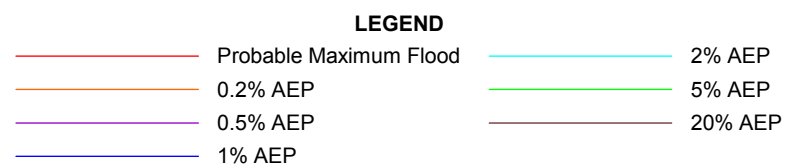
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
PMF



BRAIDWOOD FLOODPLAIN RISK MANAGEMENT STUDY AND PLAN

Figure 2.4
(Sheet 1 of 2)

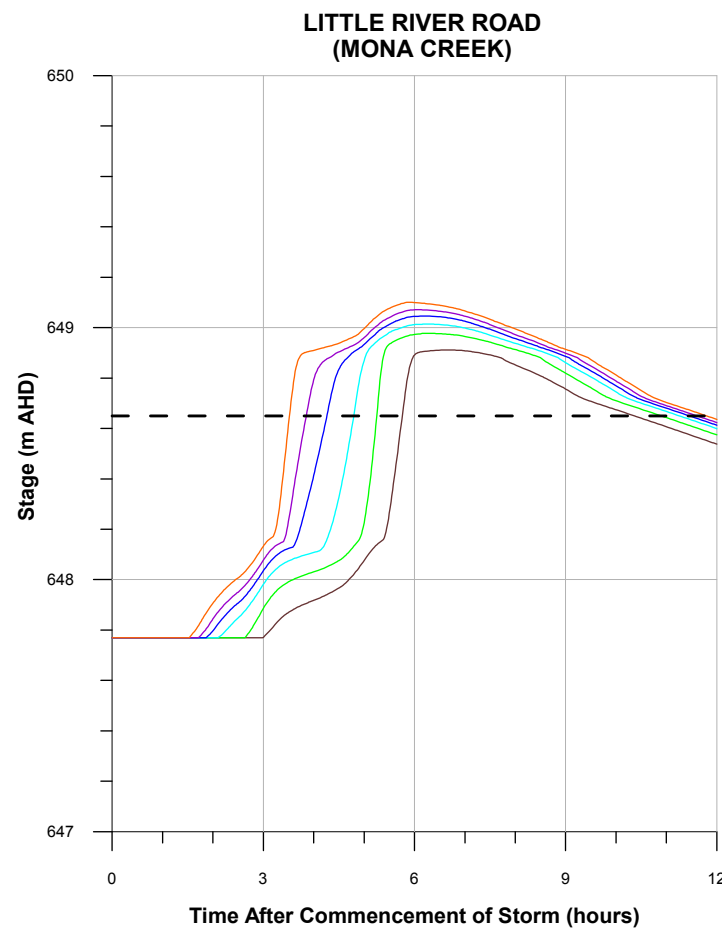
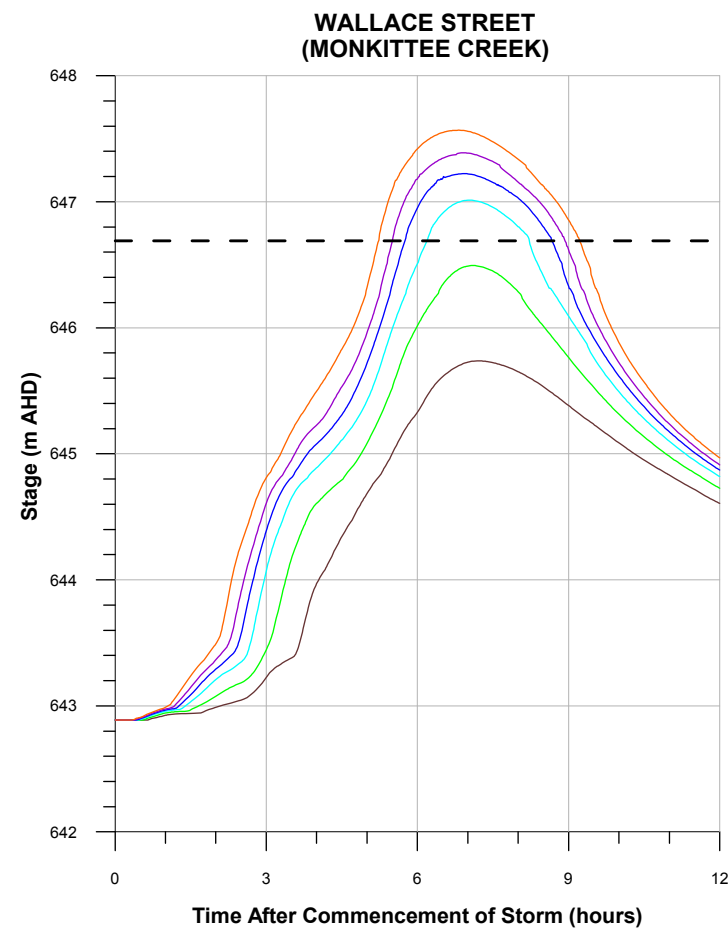
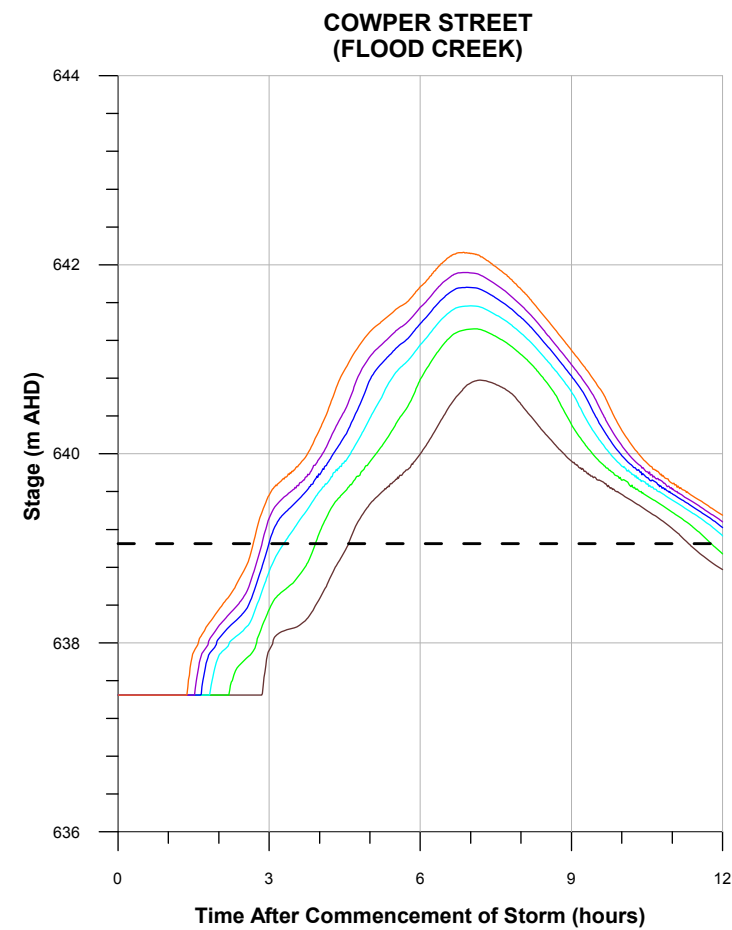
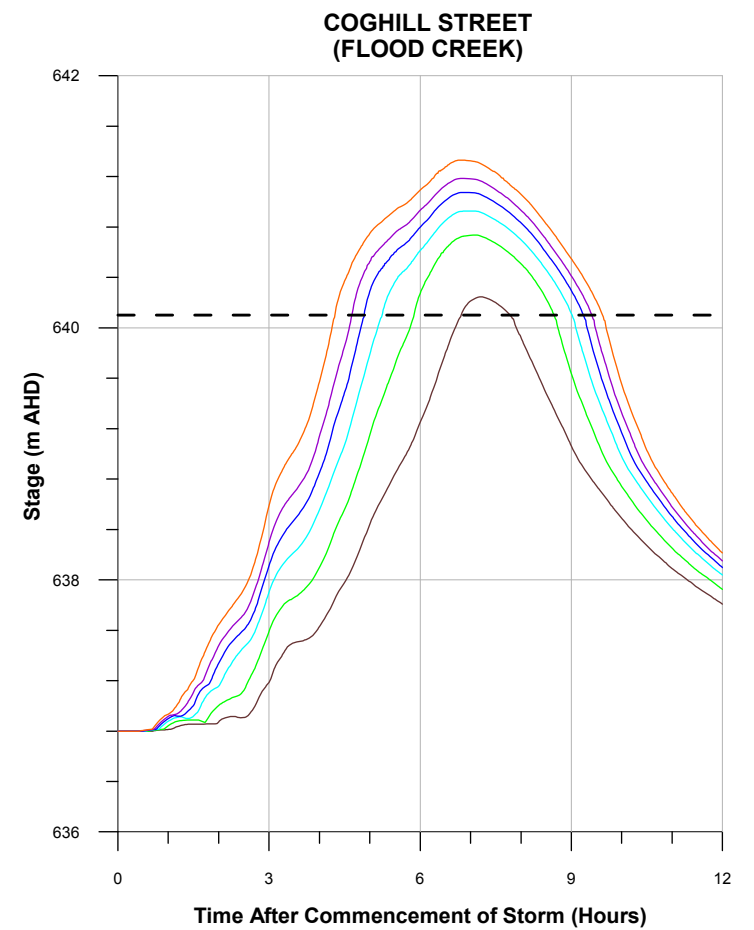
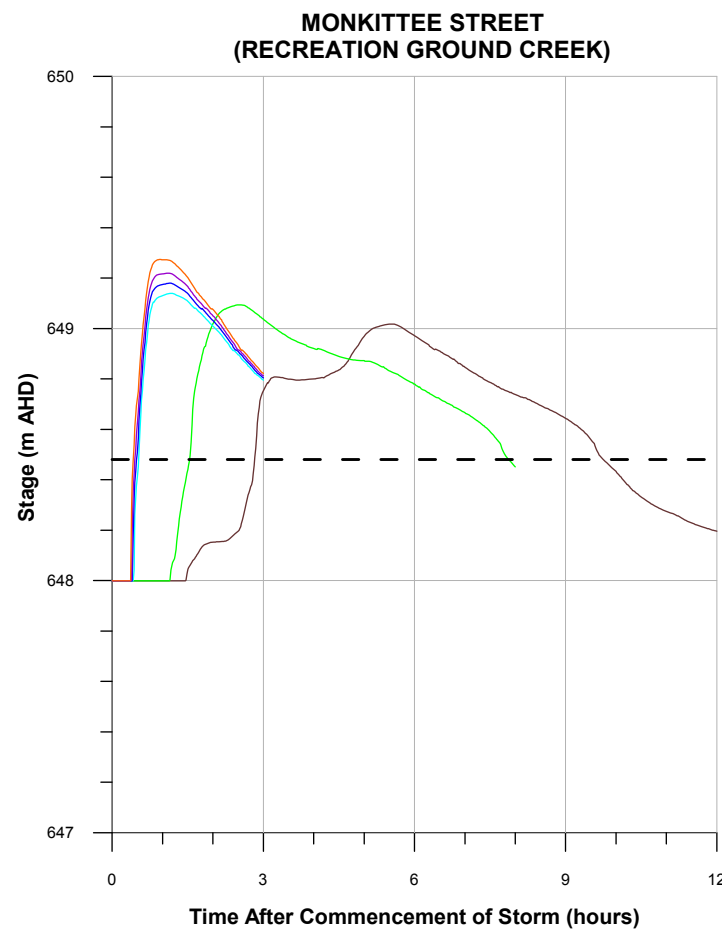
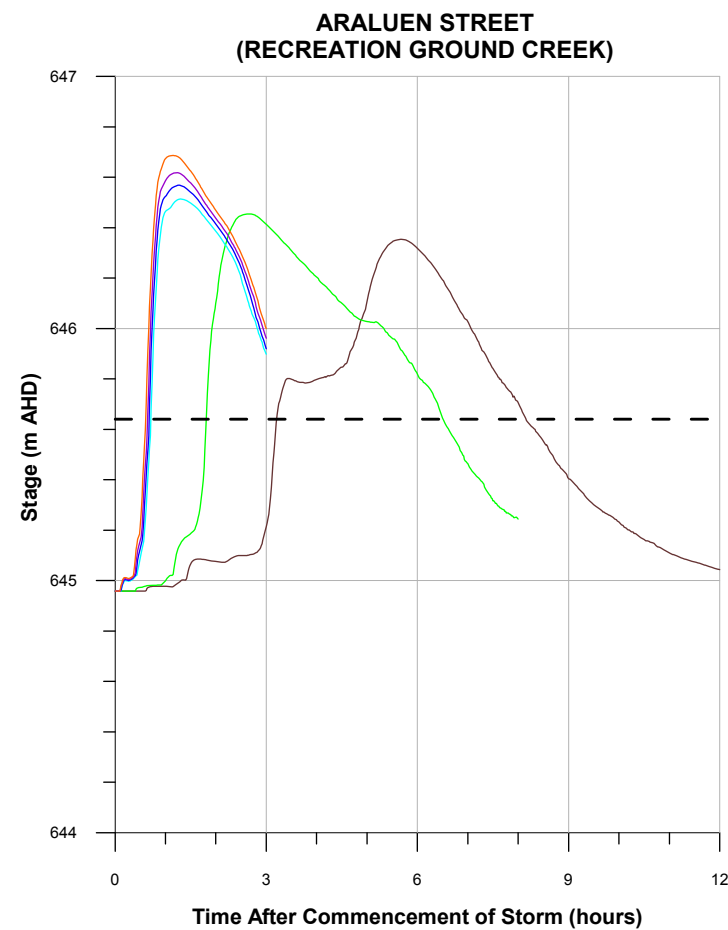
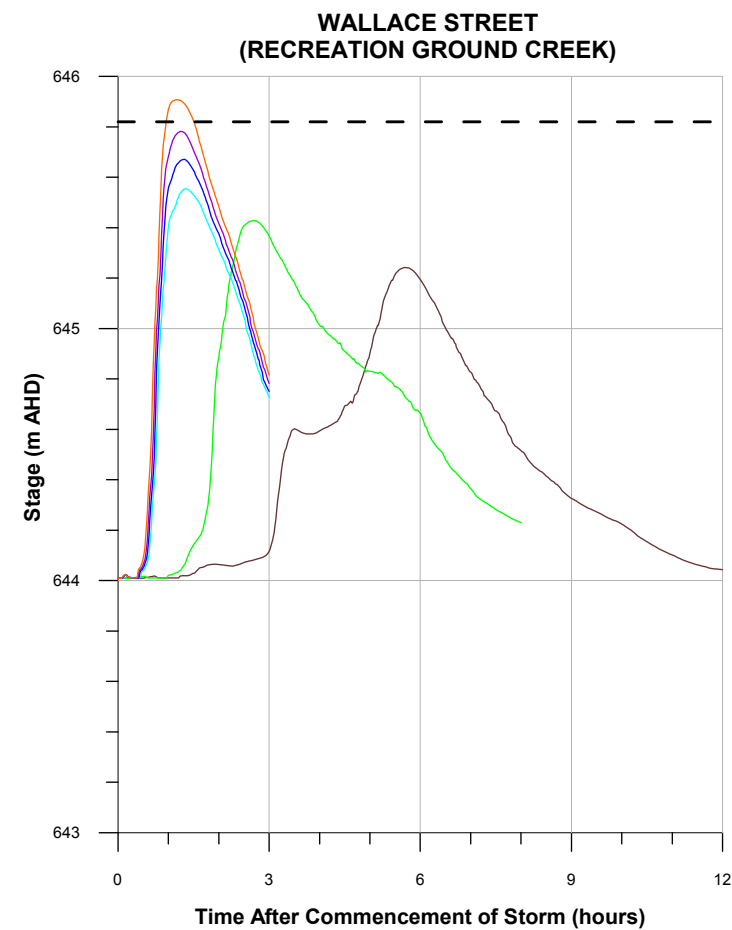
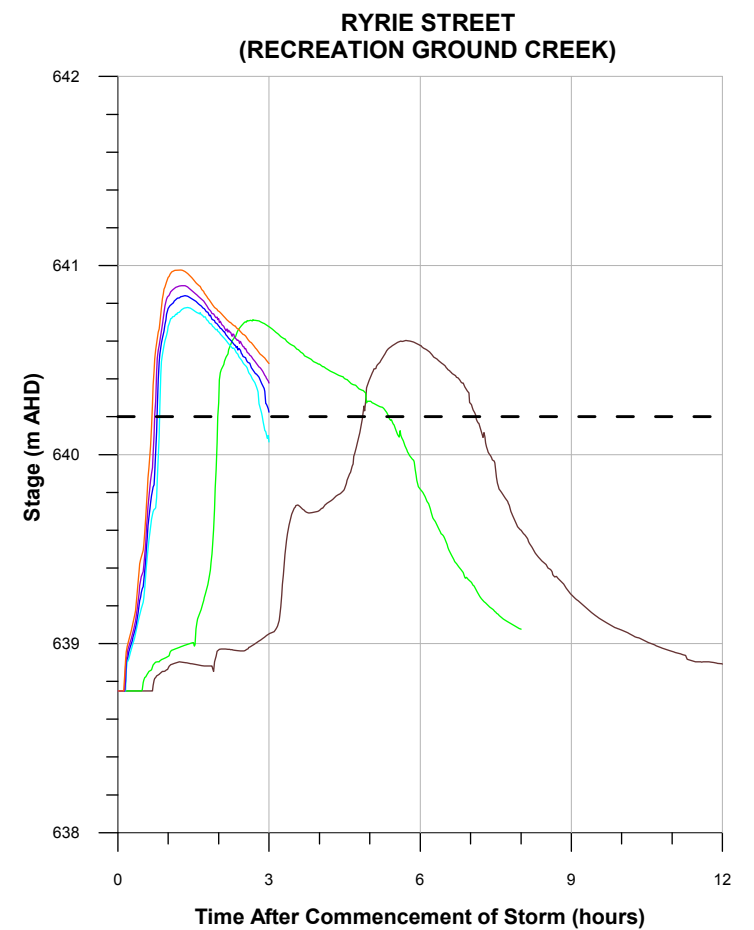
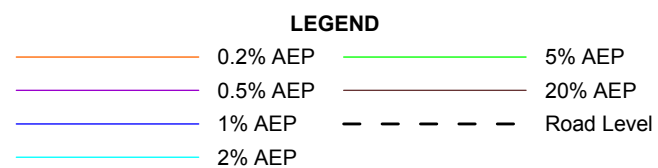
DESIGN WATER SURFACE PROFILES

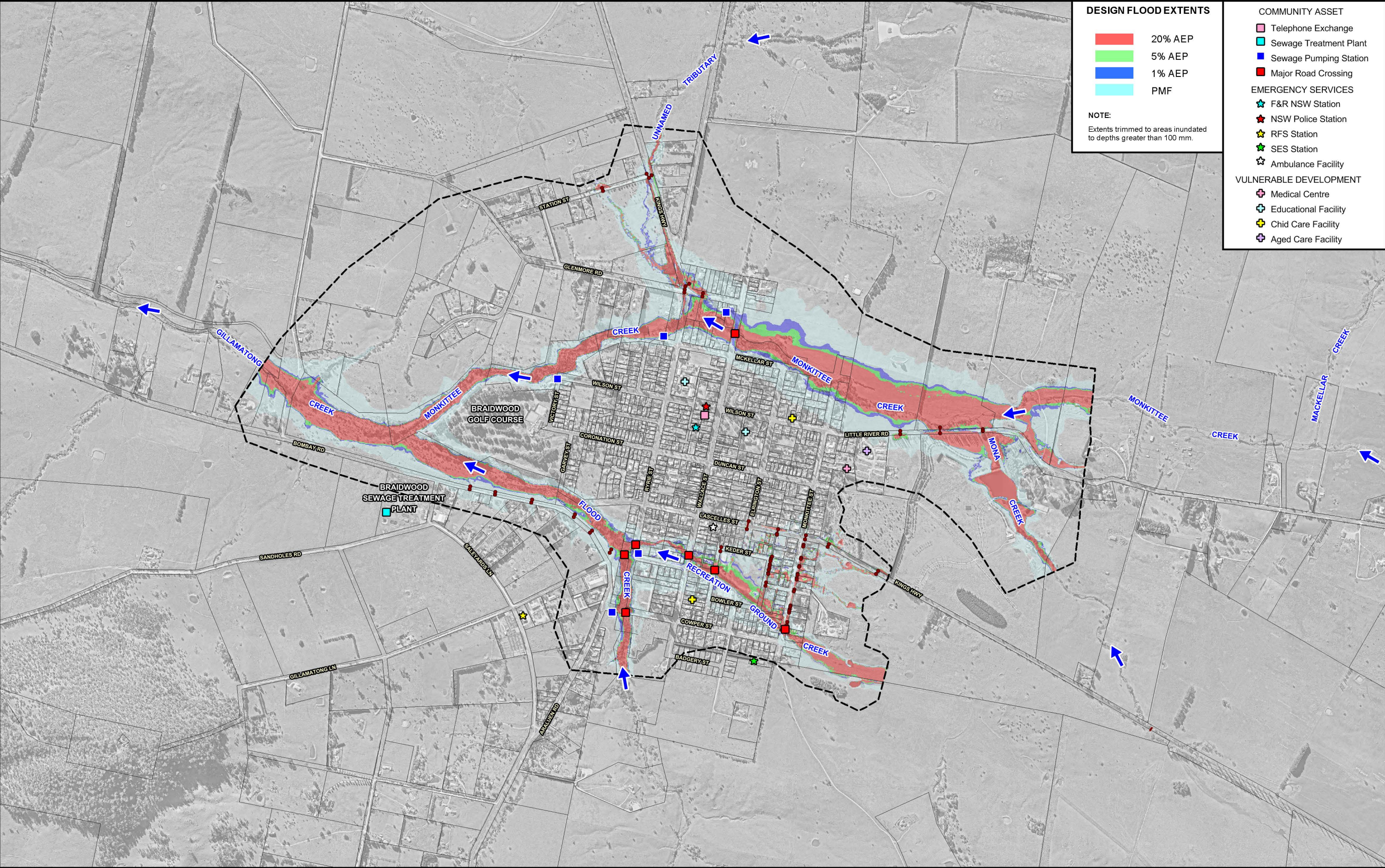


BRAIDWOOD FLOODPLAIN RISK MANAGEMENT STUDY AND PLAN

Figure 2.4
(Sheet 2 of 2)

DESIGN WATER SURFACE PROFILES

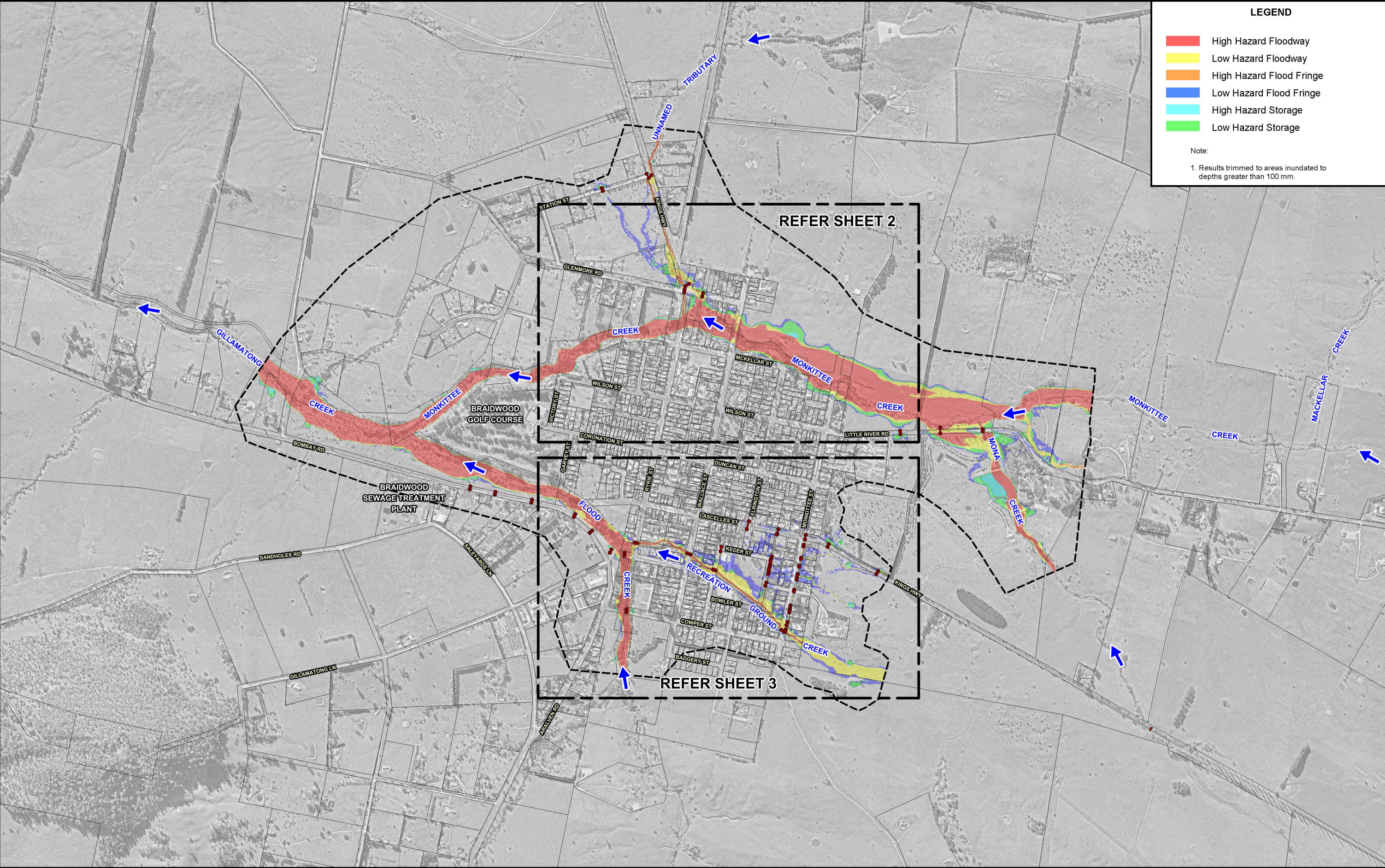




BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN

Figure 2.6

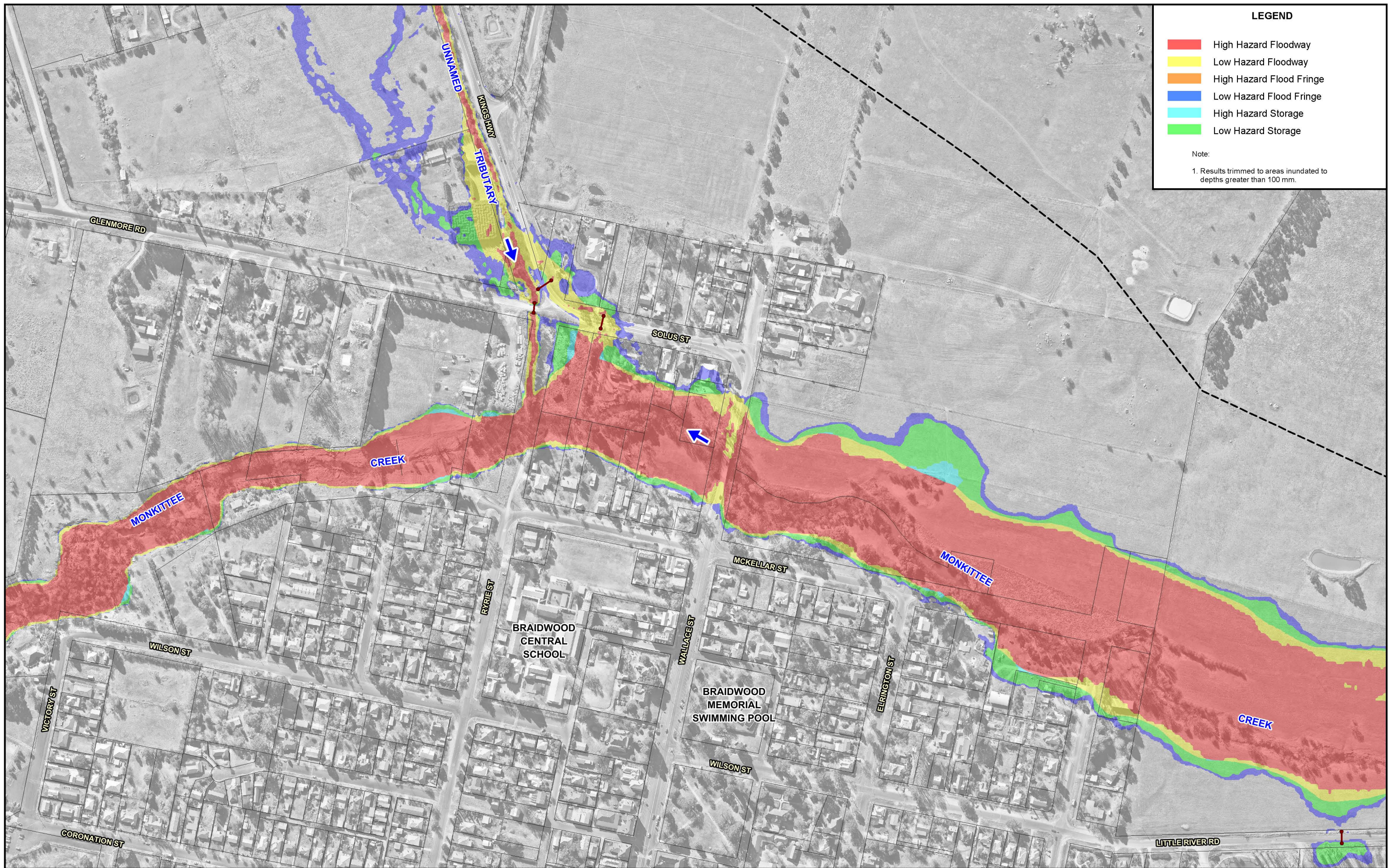
INDICATIVE EXTENT OF INUNDATION AND LOCATION OF
VULNERABLE DEVELOPMENT AND CRITICAL INFRASTRUCTURE

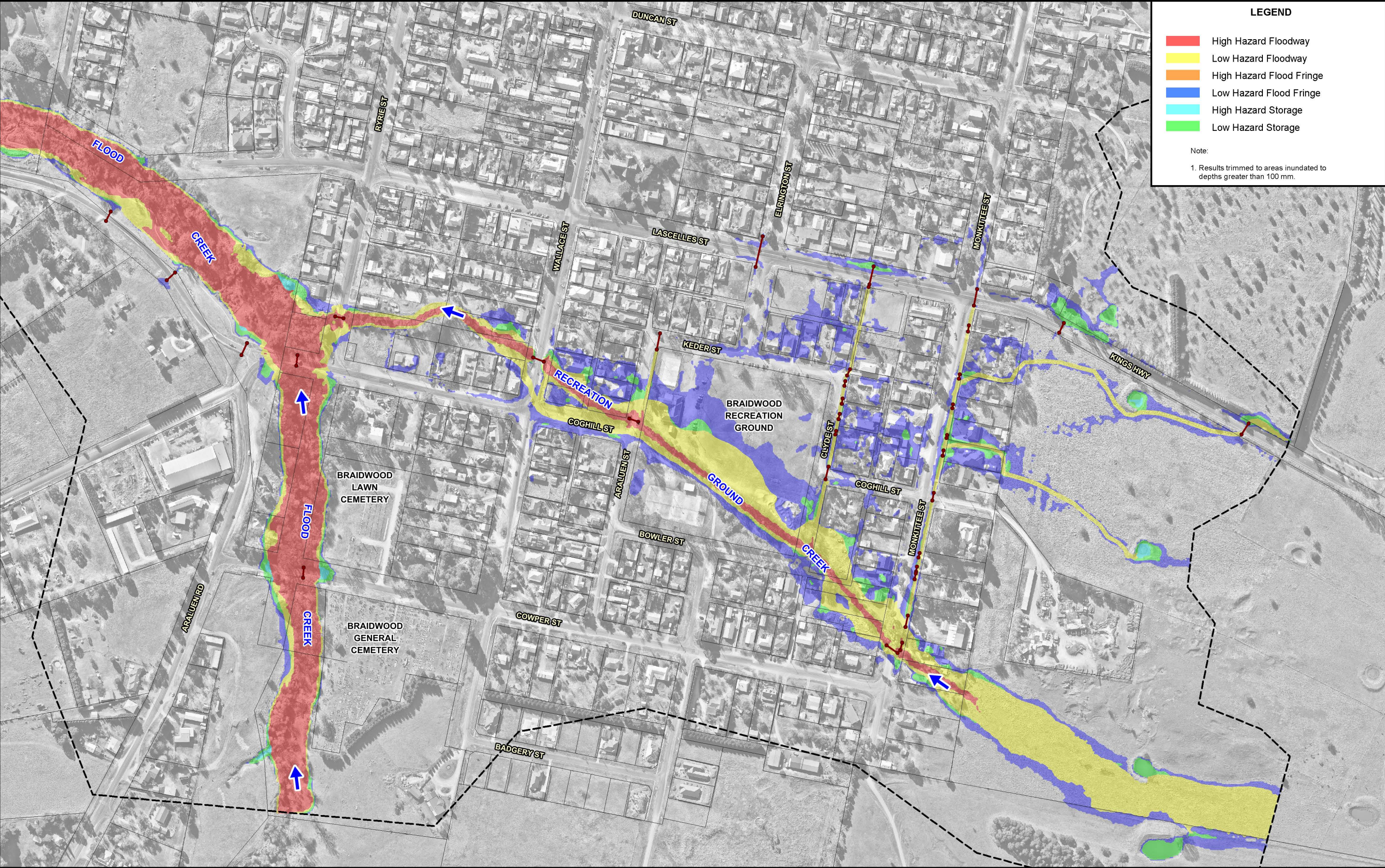


LEGEND

- High Hazard Floodway
- Low Hazard Floodway
- High Hazard Flood Fringe
- Low Hazard Flood Fringe
- High Hazard Storage
- Low Hazard Storage

Note:
1. Results trimmed to areas inundated to depths greater than 100 mm.

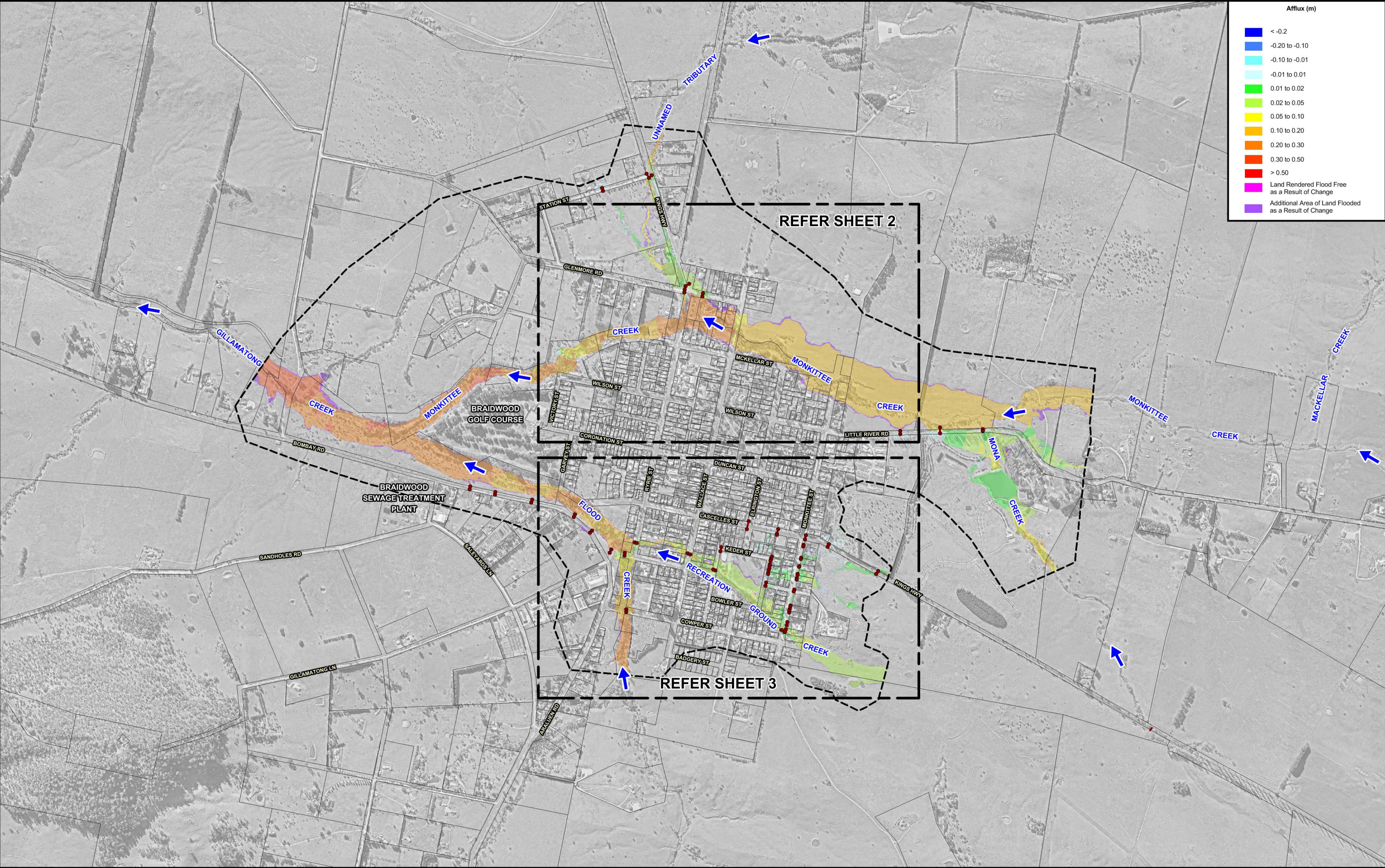
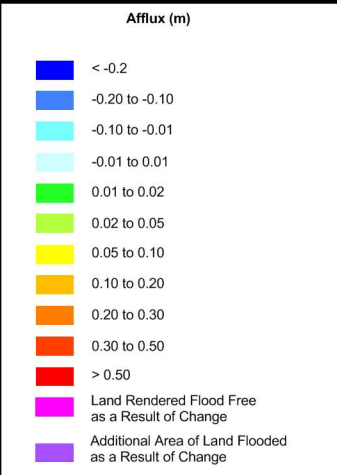
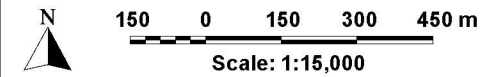




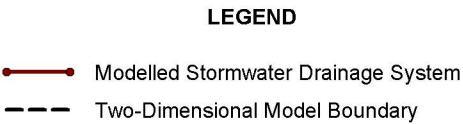
LEGEND

- High Hazard Floodway
- Low Hazard Floodway
- High Hazard Flood Fringe
- Low Hazard Flood Fringe
- High Hazard Storage
- Low Hazard Storage

Note:
1. Results trimmed to areas inundated to depths greater than 100 mm.



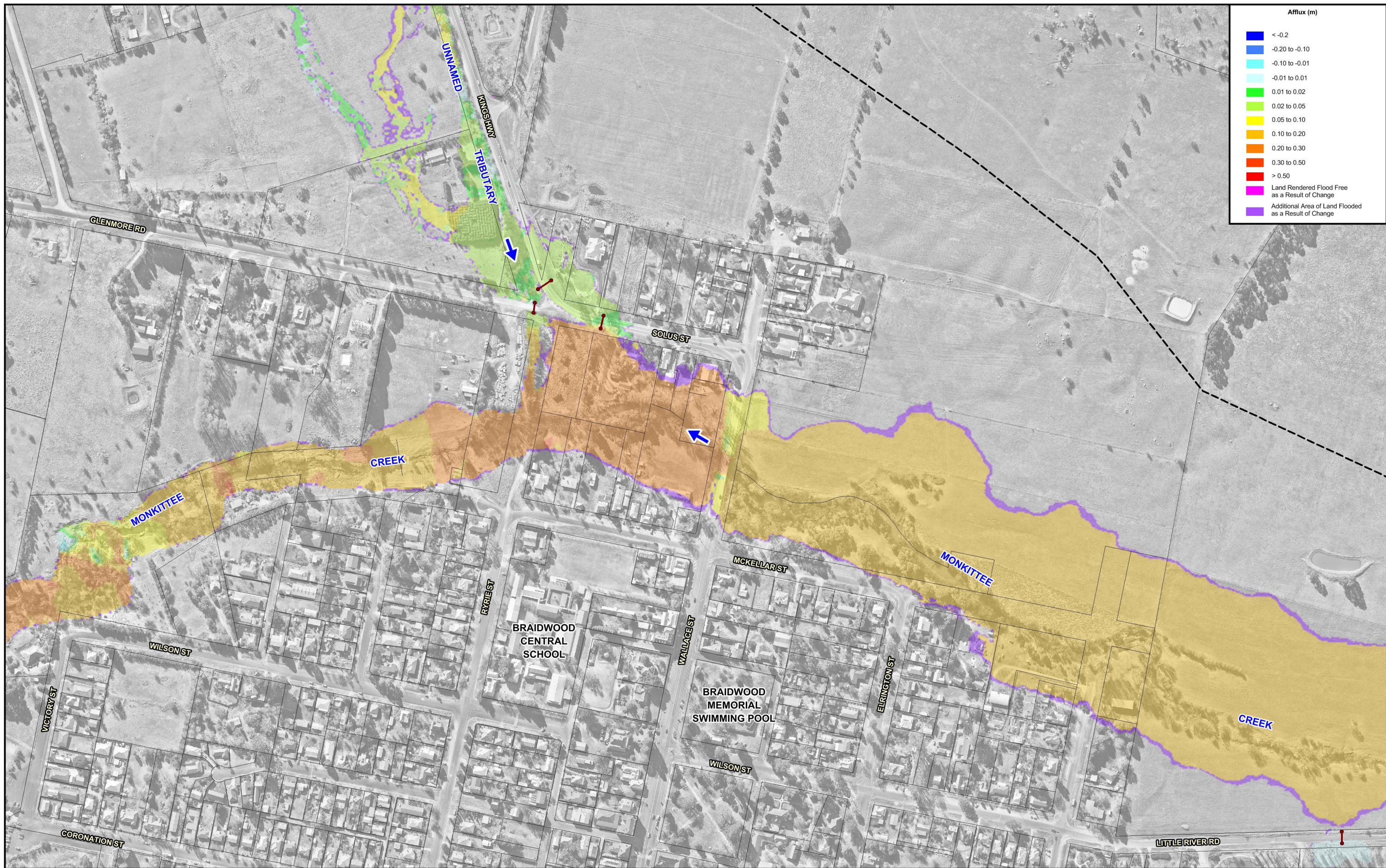
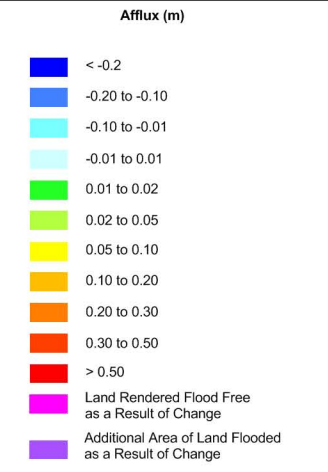
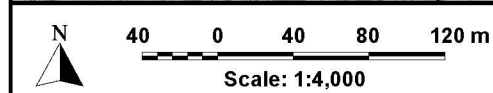
NOTE:
A positive afflux indicates that the modelled peak flood levels derived using the procedures set out in ARR1987 are higher than those derived using ARR2016.



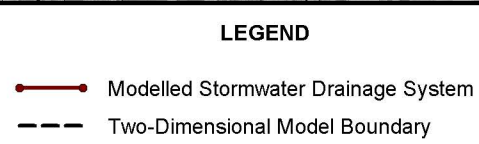
BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN

Figure 2.8
(Sheet 1 of 3)

SENSITIVITY OF FLOOD BEHAVIOUR TO 20% INCREASE IN HYDRAULIC ROUGHNESS VALUES
1% AEP



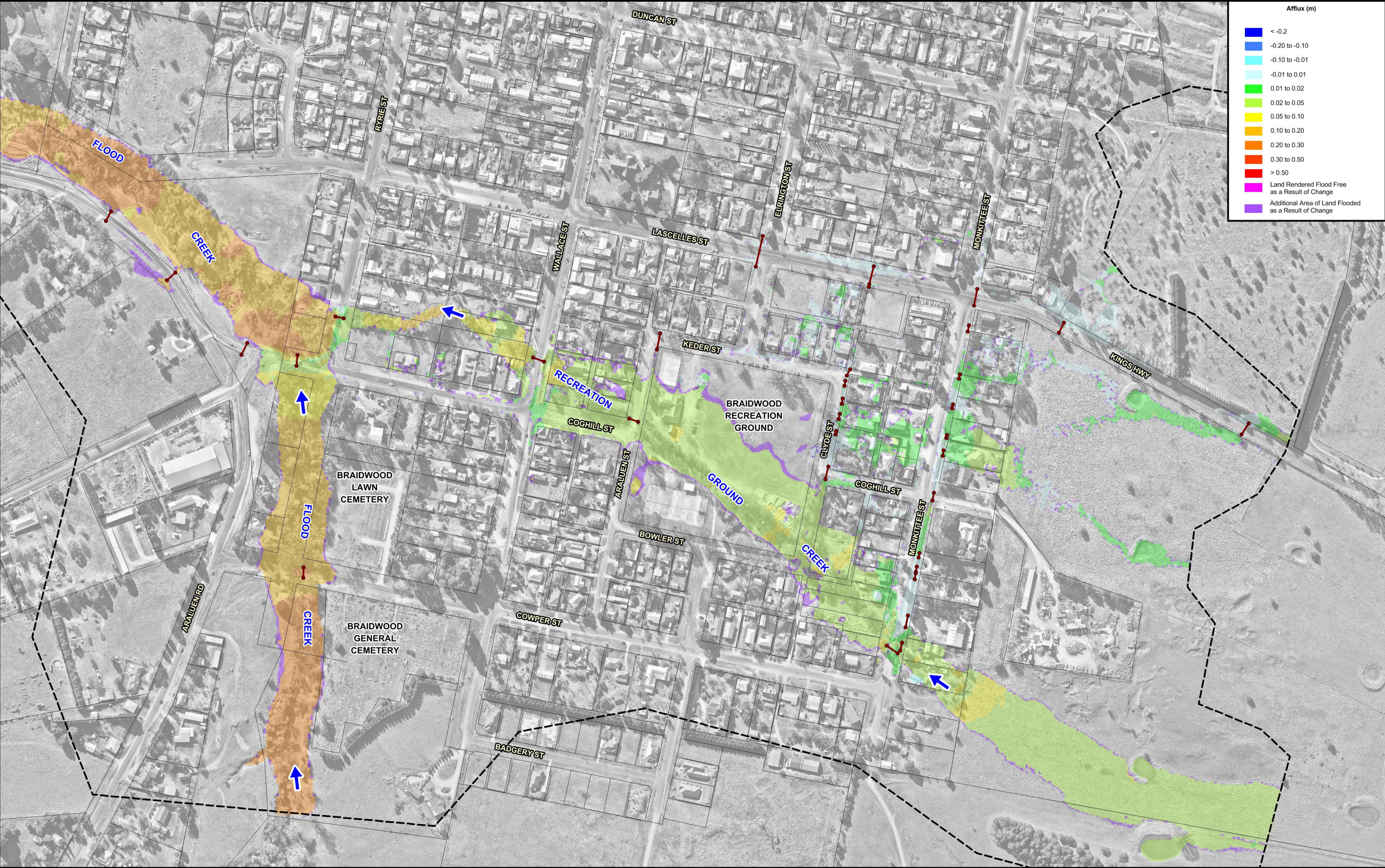
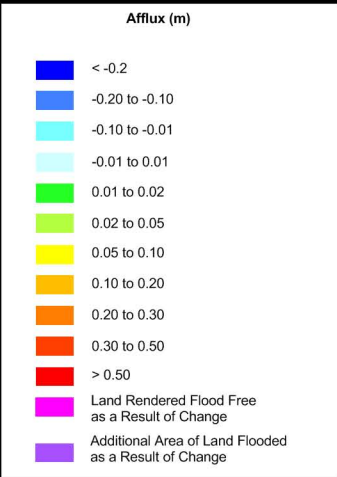
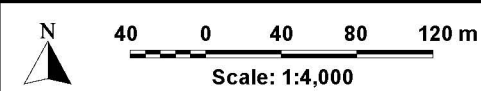
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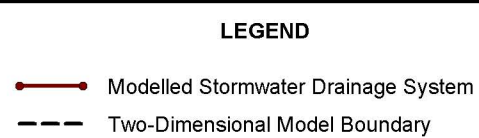
**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

Figure 2.8
(Sheet 2 of 3)

SENSITIVITY OF FLOOD BEHAVIOUR TO 20% INCREASE IN HYDRAULIC ROUGHNESS VALUES
1% AEP



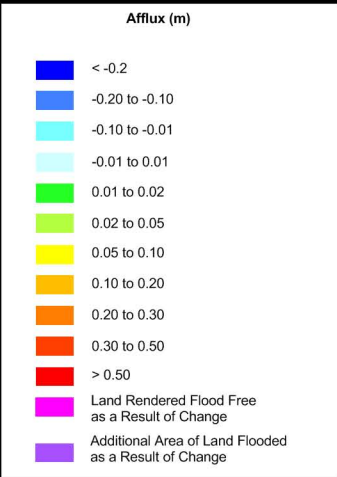
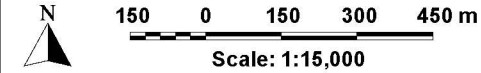
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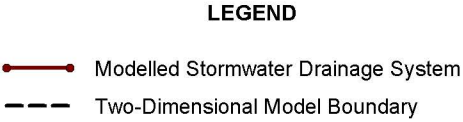
**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

Figure 2.8
(Sheet 3 of 3)

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1% AEP



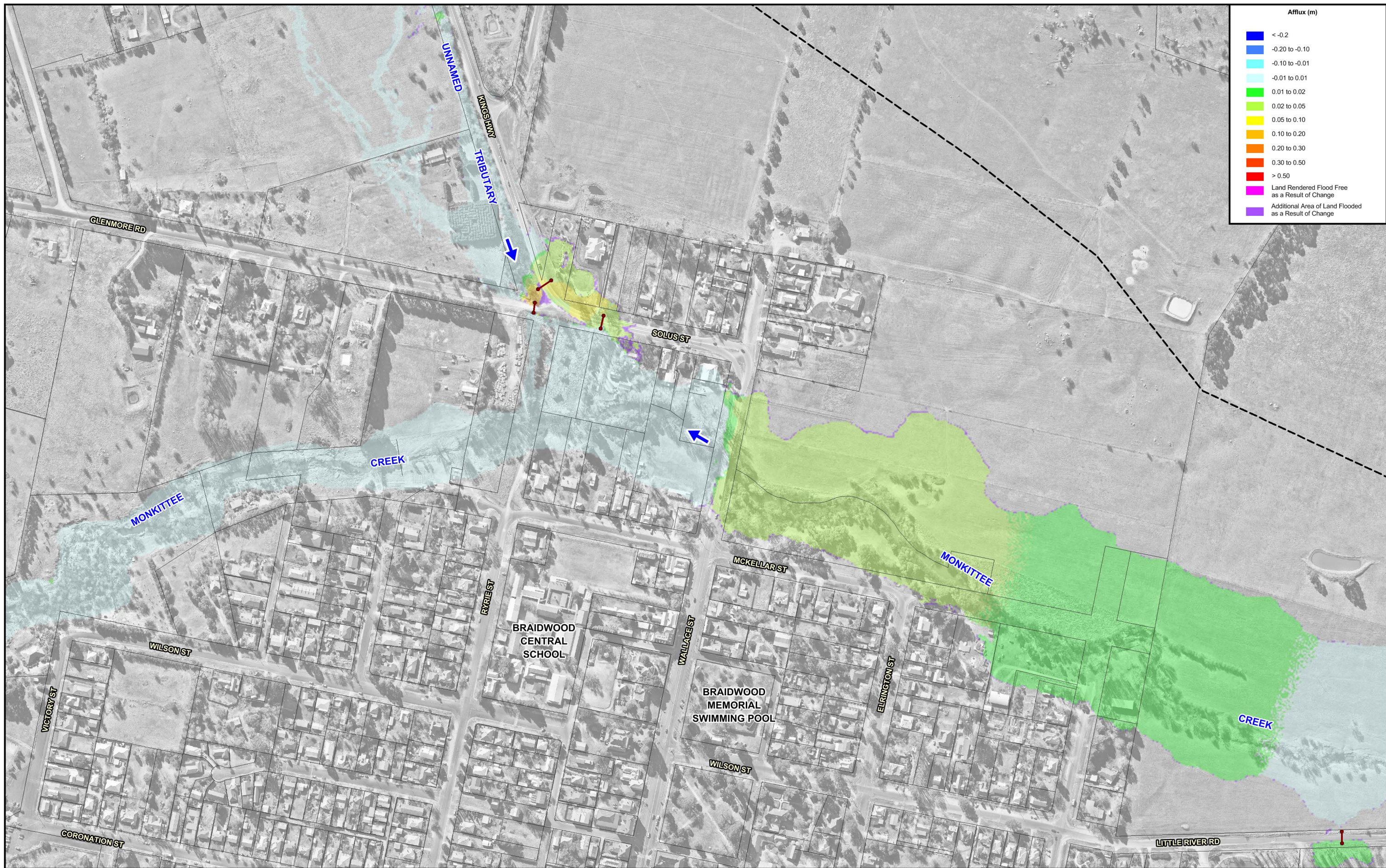
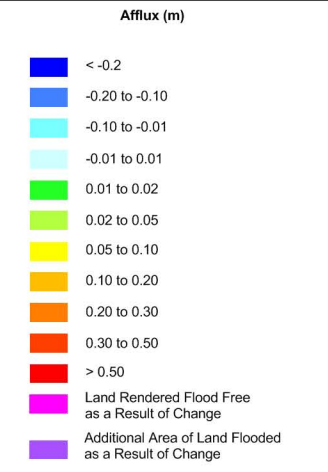
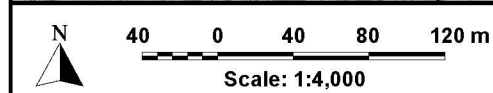
NOTE:
A positive afflux indicates that the modelled peak flood levels derived using the procedures set out in ARR1987 are higher than those derived using ARR2016.



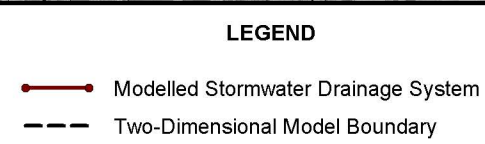
BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN

Figure 2.9
(Sheet 1 of 3)

SENSITIVITY OF FLOOD BEHAVIOUR TO PARTIAL BLOCKAGE OF HYDRAULIC STRUCTURES
1% AEP



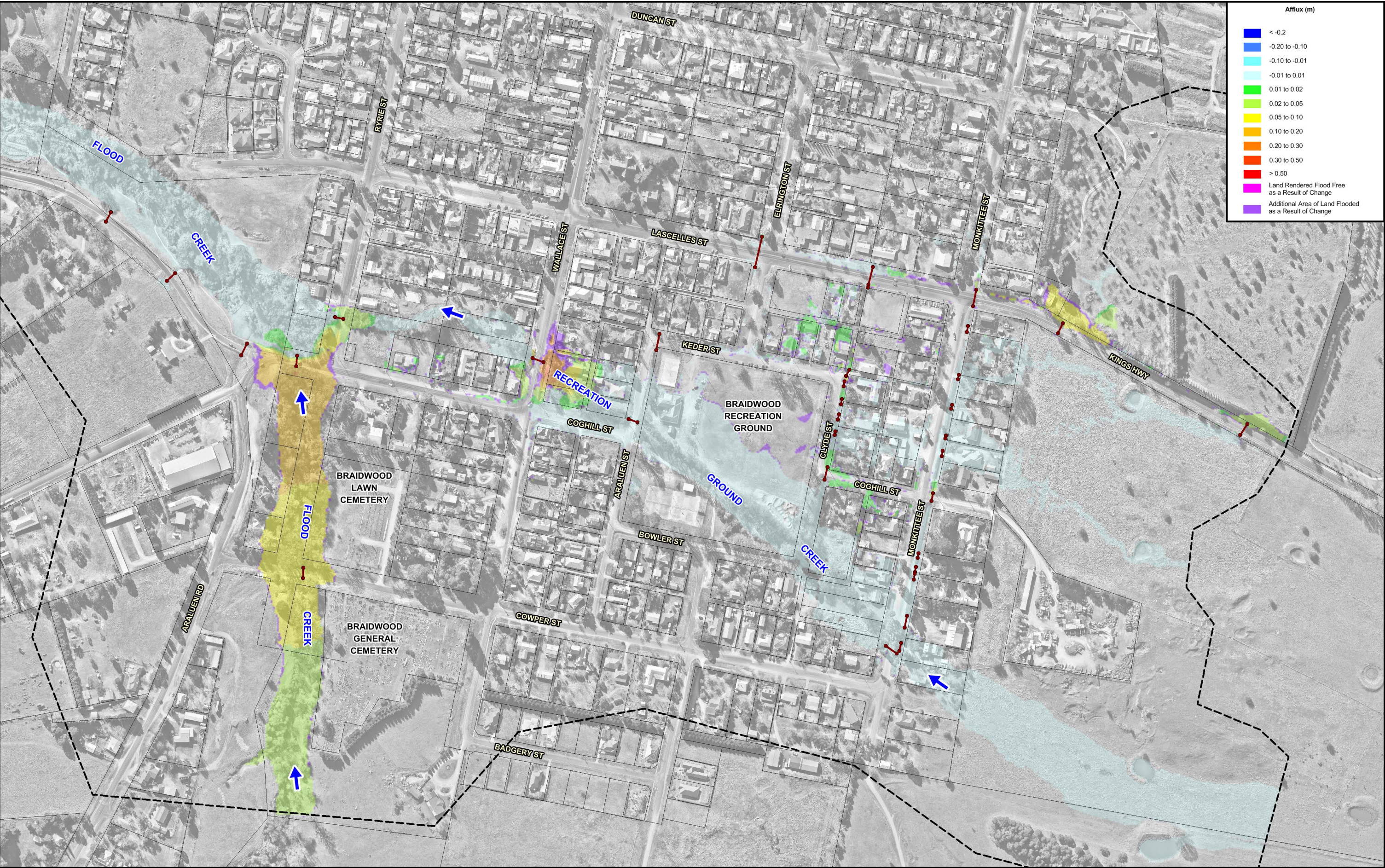
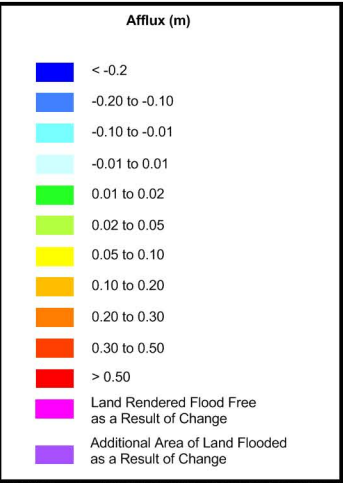
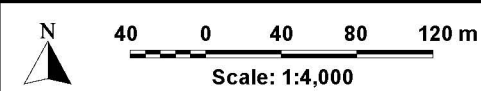
NOTE:
A positive afflux indicates that the modelled peak flood levels derived using the procedures set out in ARR1987 are higher than those derived using ARR2016.



**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

Figure 2.9
(Sheet 2 of 3)

**SENSITIVITY OF FLOOD BEHAVIOUR TO PARTIAL BLOCKAGE OF HYDRAULIC STRUCTURES
1% AEP**



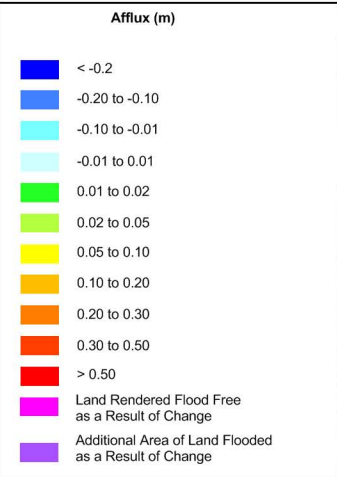
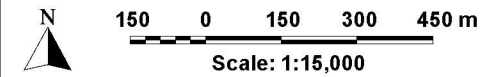
NOTE:
A positive afflux indicates that the modelled peak flood levels derived using the procedures set out in ARR1987 are higher than those derived using ARR2016.



BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN

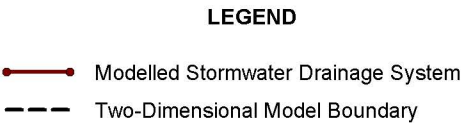
Figure 2.9
(Sheet 3 of 3)

SENSITIVITY OF FLOOD BEHAVIOUR TO PARTIAL BLOCKAGE OF HYDRAULIC STRUCTURES
1% AEP



Lyall & Associates

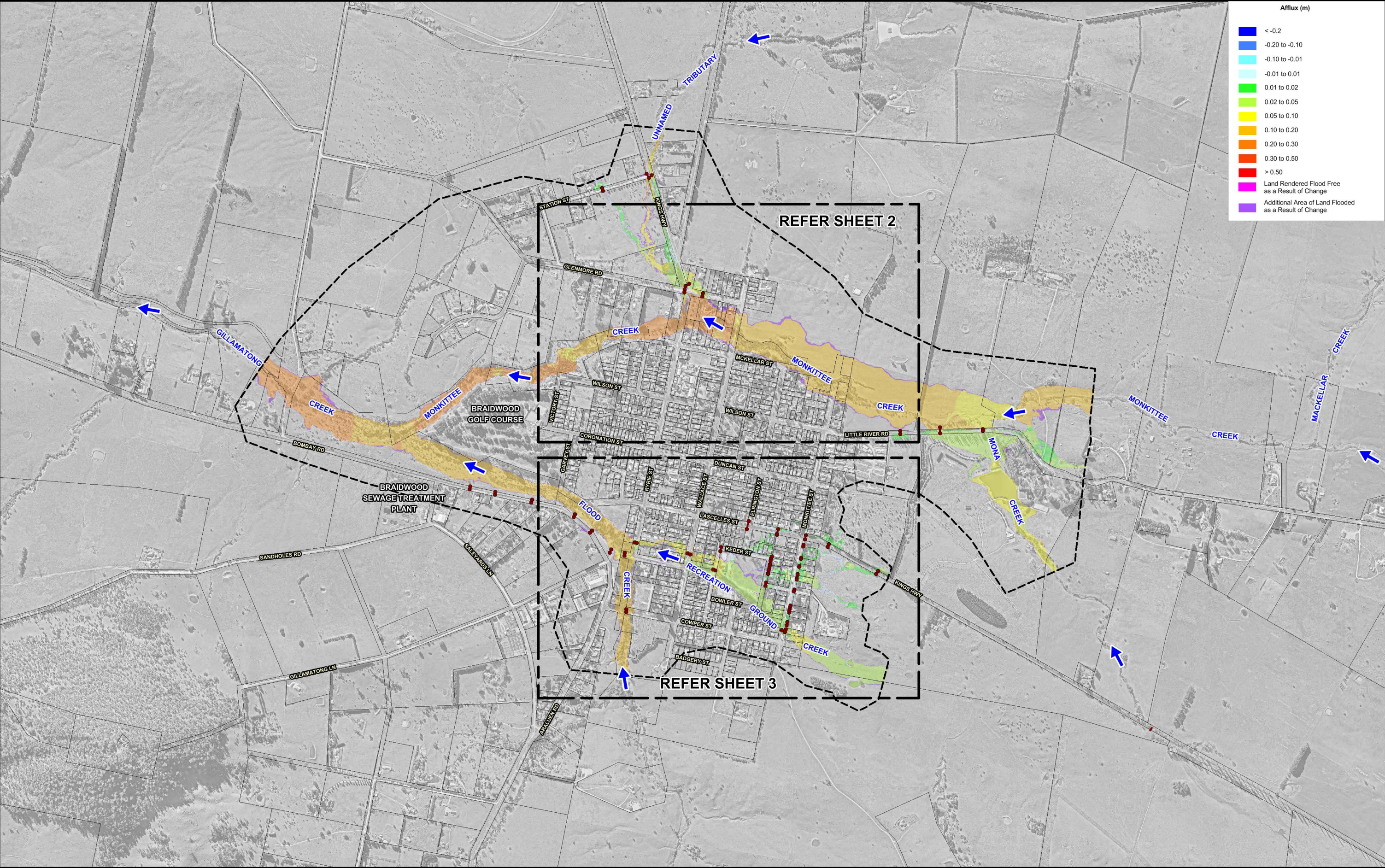
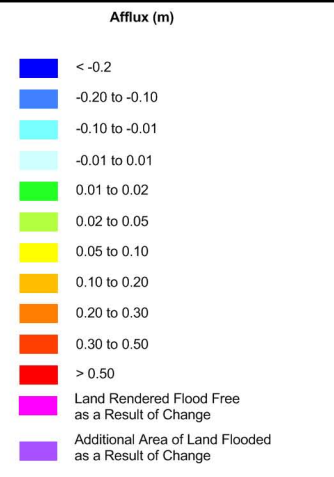
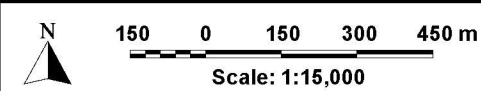
NOTE:
A positive afflux indicates that the modelled peak flood levels derived using the procedures set out in ARR1987 are higher than those derived using ARR2016.



**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

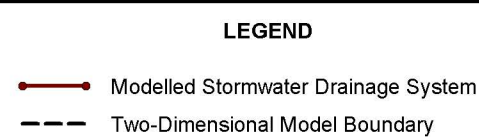
Figure 2.10

POTENTIAL IMPACT OF OF FUTURE URBANISATION ON FLOODING AND DRAINAGE PATTERNS
1% AEP



Lyall & Associates

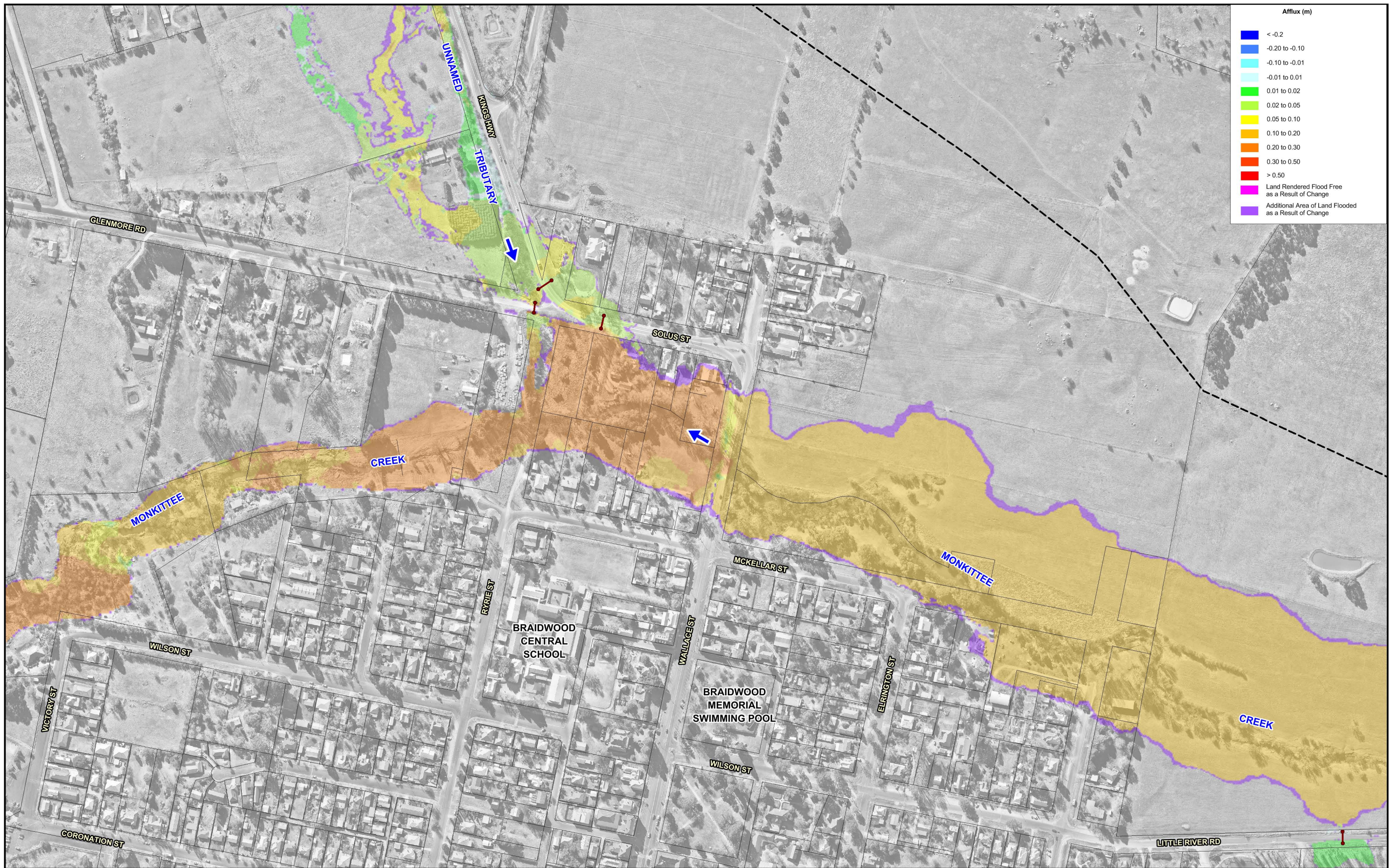
NOTE:
A positive afflux indicates that the modelled peak flood levels derived using the procedures set out in ARR1987 are higher than those derived using ARR2016.



BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN

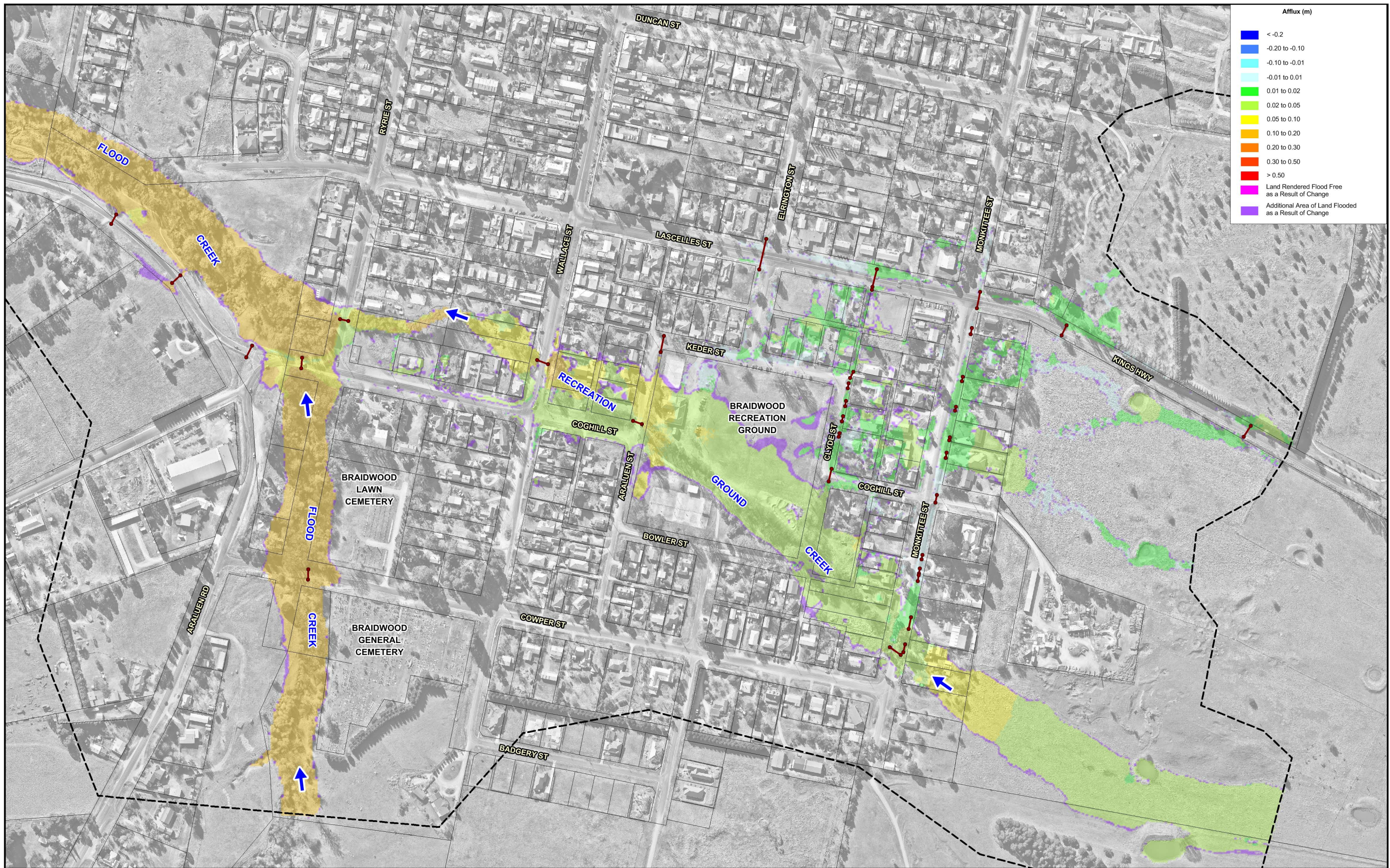
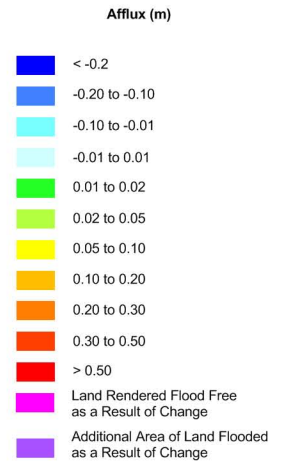
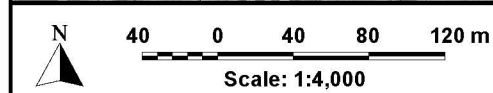
Figure 2.11
(Sheet 1 of 3)

POTENTIAL IMPACT OF 10% INCREASE IN RAINFALL ON FLOODING AND DRAINAGE PATTERNS
1% AEP

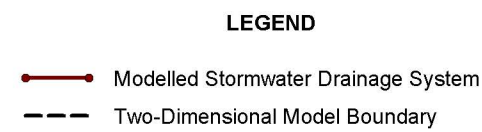


NOTE:
A positive afflux indicates that the modelled peak flood levels derived using the procedures set out in ARR1987 are higher than those derived using ARR2016.

- LEGEND
-  Modelled Stormwater Drainage System
 -  Two-Dimensional Model Boundary



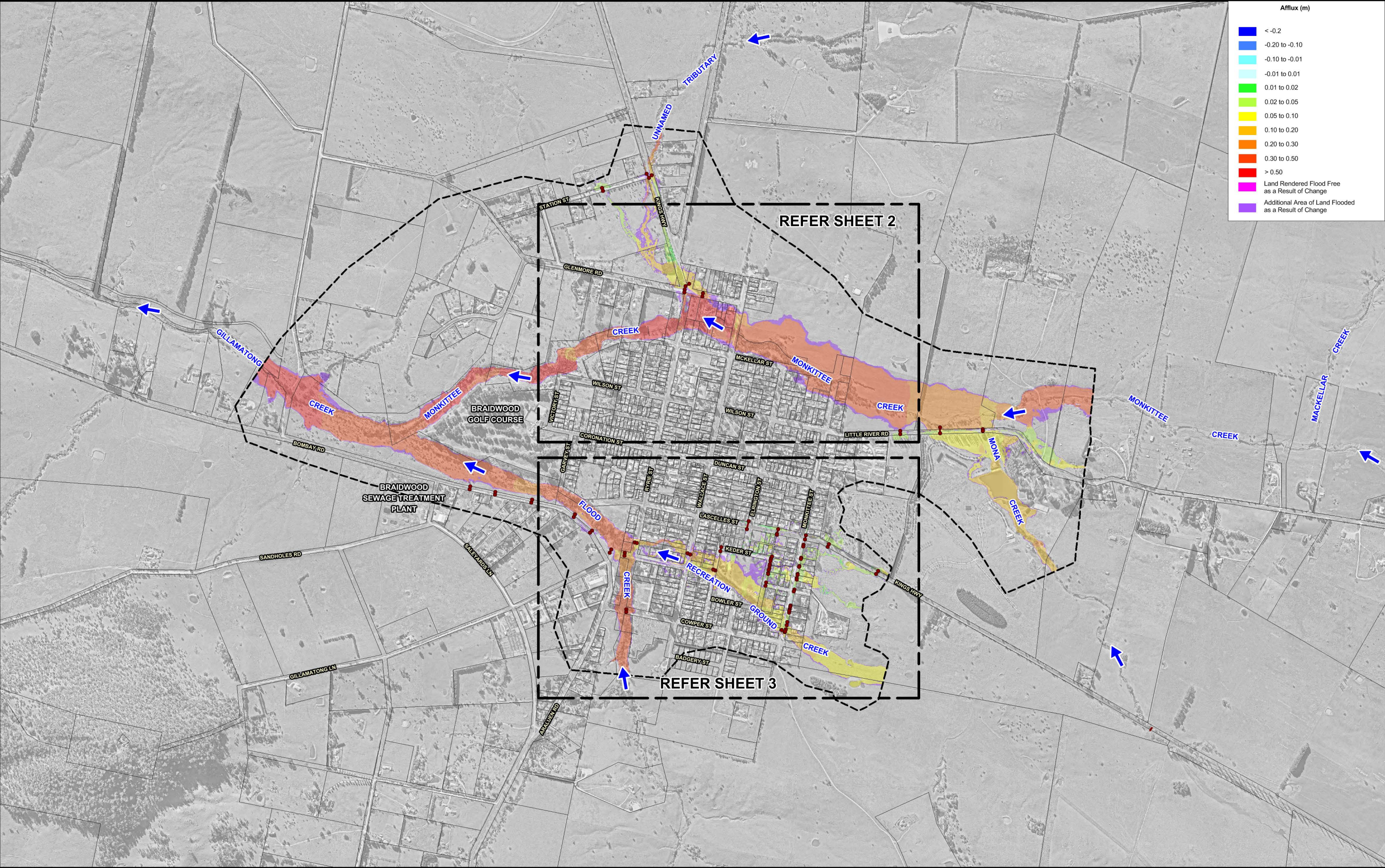
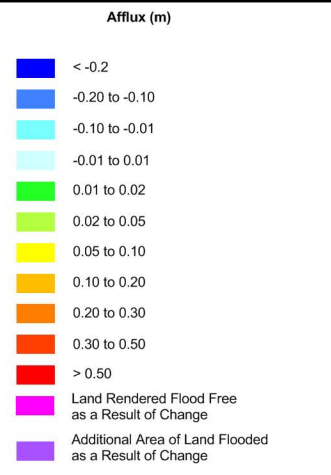
NOTE:
A positive afflux indicates that the modelled peak flood levels derived using the procedures set out in ARR1987 are higher than those derived using ARR2016.



**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

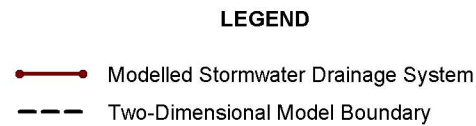
Figure 2.11
(Sheet 3 of 3)

POTENTIAL IMPACT OF 10% INCREASE IN RAINFALL ON FLOODING AND DRAINAGE PATTERNS
1% AEP



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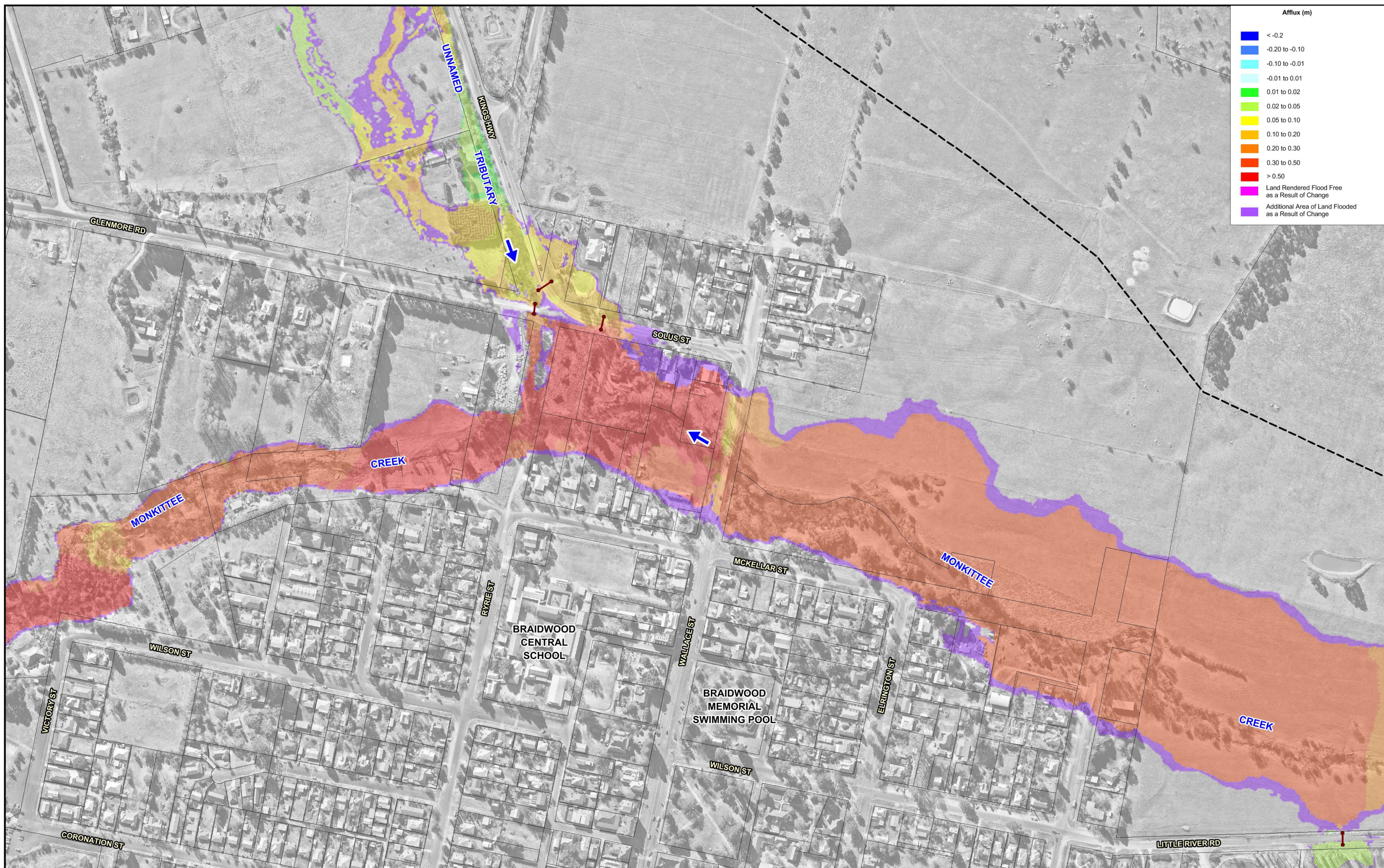
NOTE:
A positive afflux indicates that the modelled peak flood levels derived using the procedures set out in ARR1987 are higher than those derived using ARR2016.



BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN

Figure 2.12
(Sheet 1 of 3)

POTENTIAL IMPACT OF 30% INCREASE IN RAINFALL ON FLOODING AND DRAINAGE PATTERNS
1% AEP



Afflux (m)

< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 0.50
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change

Scale: 1:4,000

40 0 40 80 120 m

Lyall & Associates

NOTE:

A positive afflux indicates that the modelled peak flood levels derived using the procedures set out in ARR1987 are higher than those derived using ARR2016.

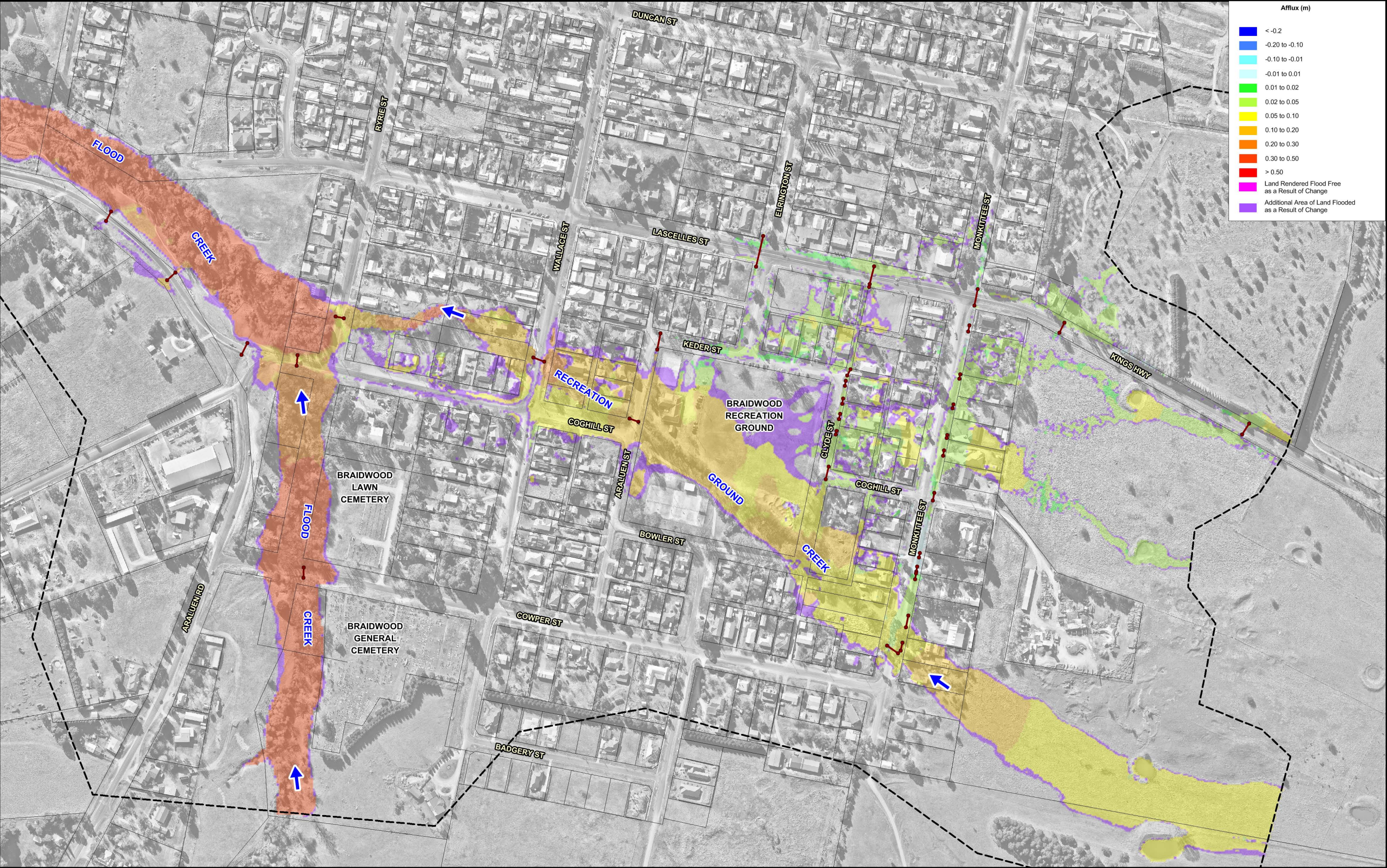
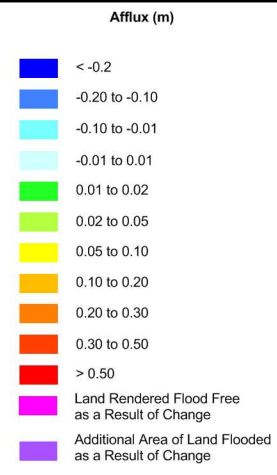
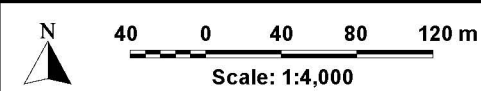
LEGEND

- Modelled Stormwater Drainage System
- Two-Dimensional Model Boundary

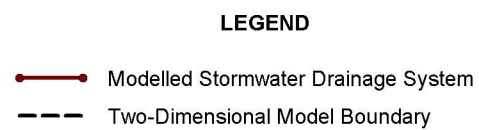
**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

Figure 2.12
(Sheet 2 of 3)

**POTENTIAL IMPACT OF 30% INCREASE IN RAINFALL ON FLOODING AND DRAINAGE PATTERNS
1% AEP**



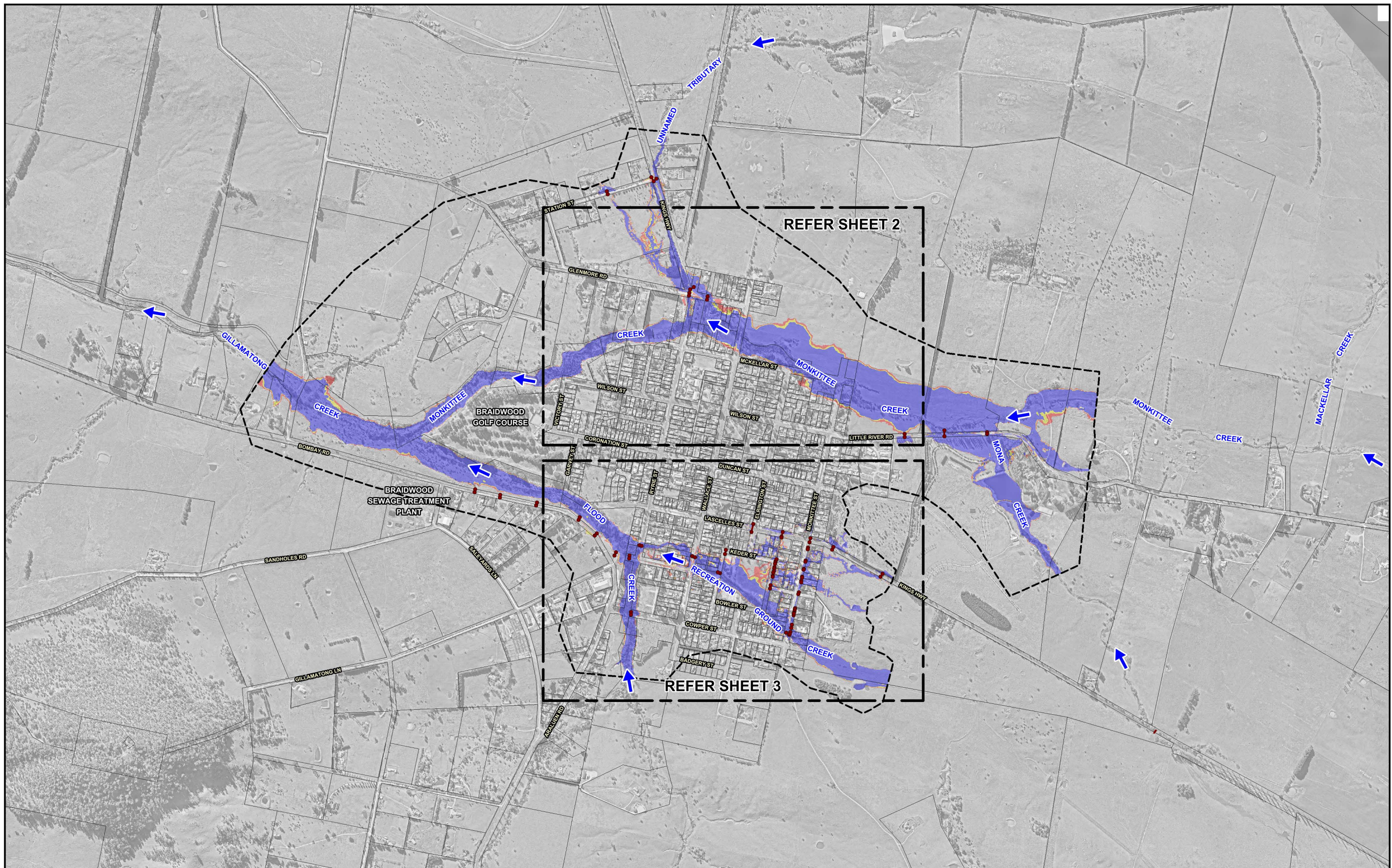
NOTE:
A positive afflux indicates that the modelled peak flood levels derived using the procedures set out in ARR1987 are higher than those derived using ARR2016.



BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN

Figure 2.12
(Sheet 3 of 3)

POTENTIAL IMPACT OF 30% INCREASE IN RAINFALL ON FLOODING AND DRAINAGE PATTERNS
1% AEP



Scale: 1:15,000

150 0 150 300 450 m

Lyall & Associates

NOTE:

A positive afflux indicates that the modelled peak flood levels derived using the procedures set out in ARR1987 are higher than those derived using ARR2016.

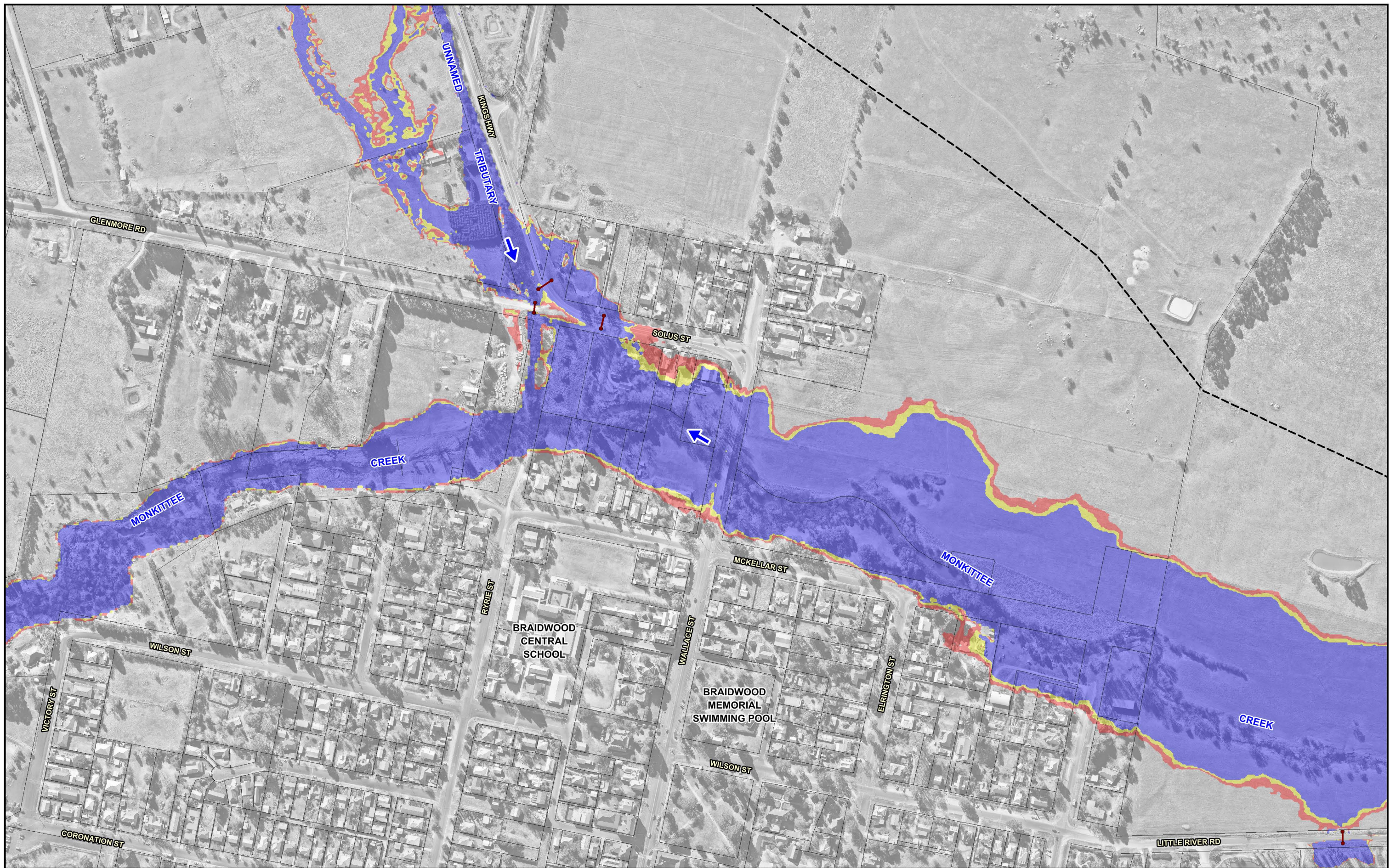
LEGEND

- Modelled Stormwater Network
- - - Two-Dimensional Model Boundary
- 1% AEP
- 1% AEP Rainfall Increased by 10%
- 1% AEP Rainfall Increased by 30%

**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

Figure 2.13
(Sheet 1 of 3)

**IMPACT OF INCREASED RAINFALL INTENSITIES ON EXTENT OF FLOODING
1% AEP**



Lyall & Associates

NOTE:
A positive afflux indicates that the modelled peak flood levels derived using the procedures set out in ARR1987 are higher than those derived using ARR2016.

LEGEND

—●— Modelled Stormwater Network	 1% AEP
---- Two-Dimensional Model Boundary	 1% AEP Rainfall Increased by 10%
	 1% AEP Rainfall Increased by 30%

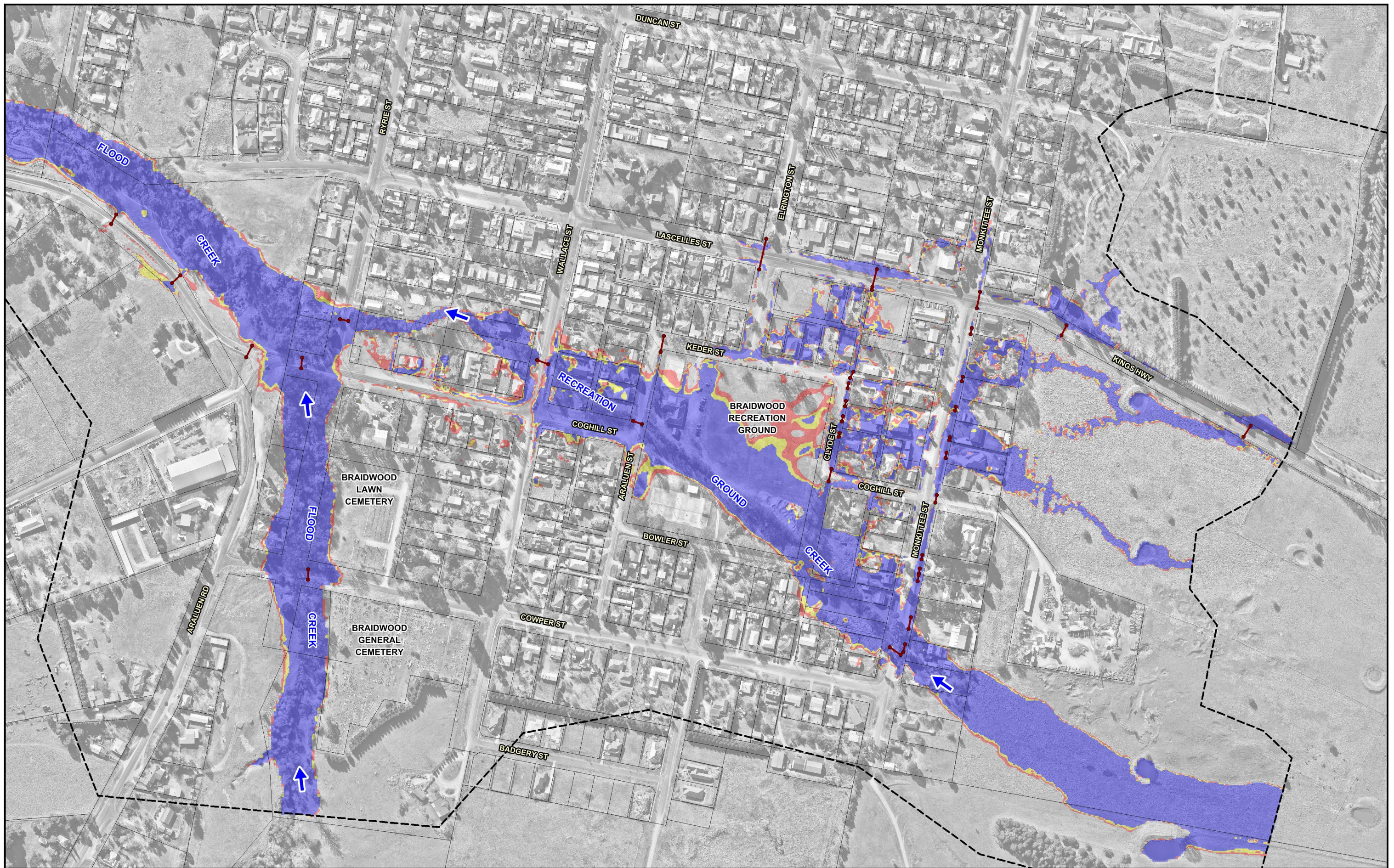
**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

Figure 2.13
(Sheet 2 of 3)

**IMPACT OF INCREASED RAINFALL INTENSITIES ON EXTENT OF FLOODING
1% AEP**

Scale: 1:4,000

40 0 40 80 120 m



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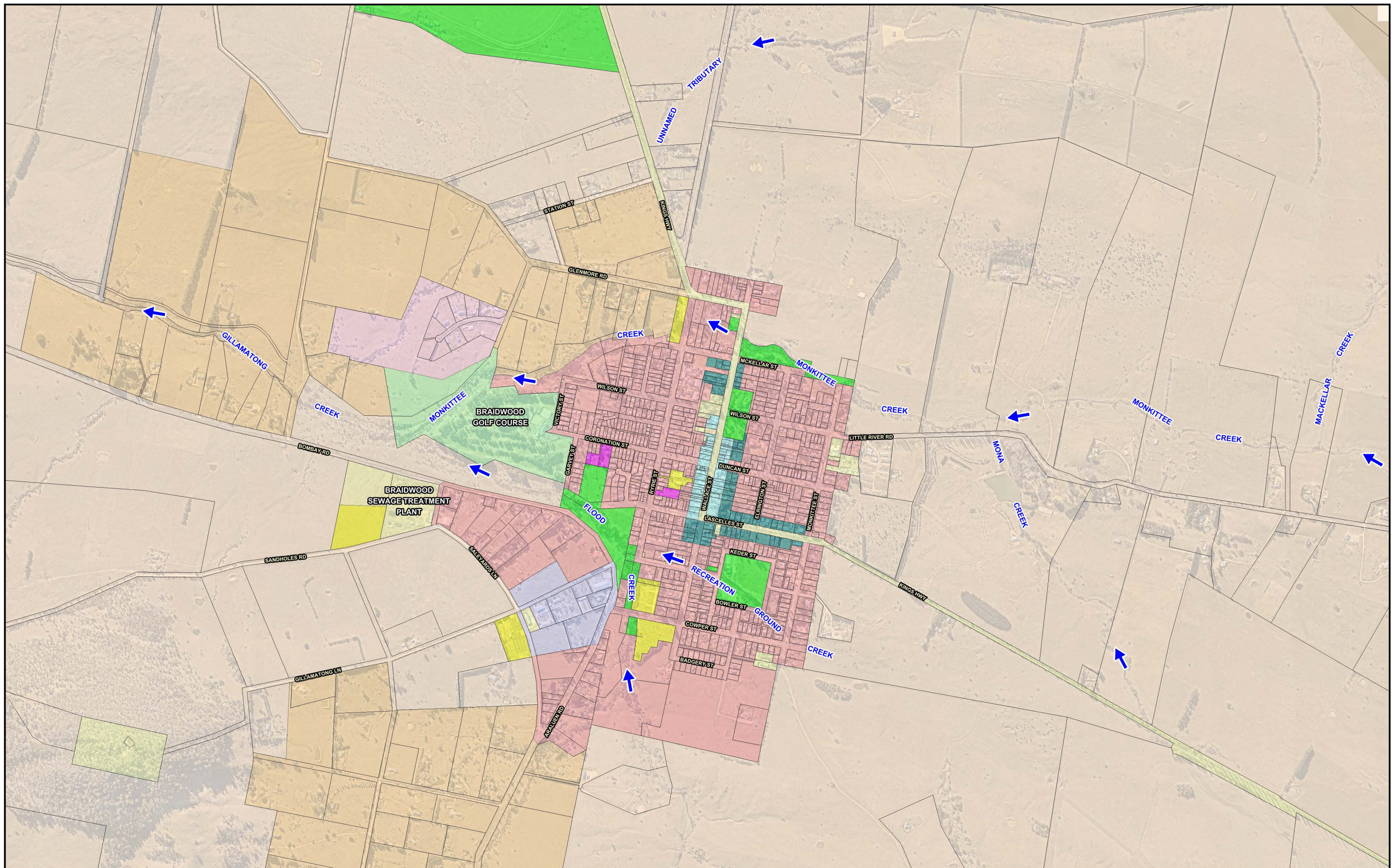
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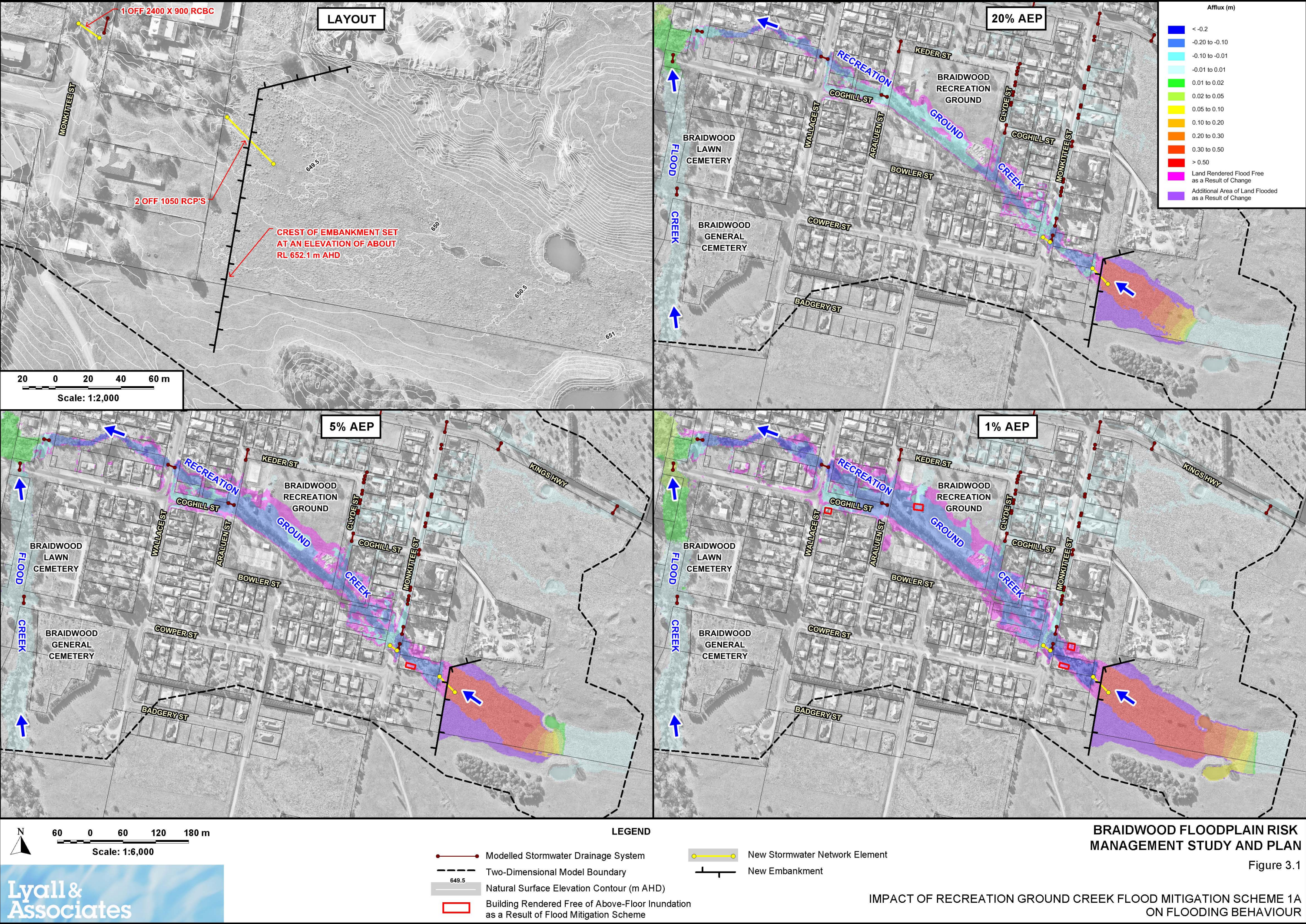
- LEGEND**
- Modelled Stormwater Network
 - Two-Dimensional Model Boundary
 - 1% AEP
 - 1% AEP Rainfall Increased by 10%
 - 1% AEP Rainfall Increased by 30%

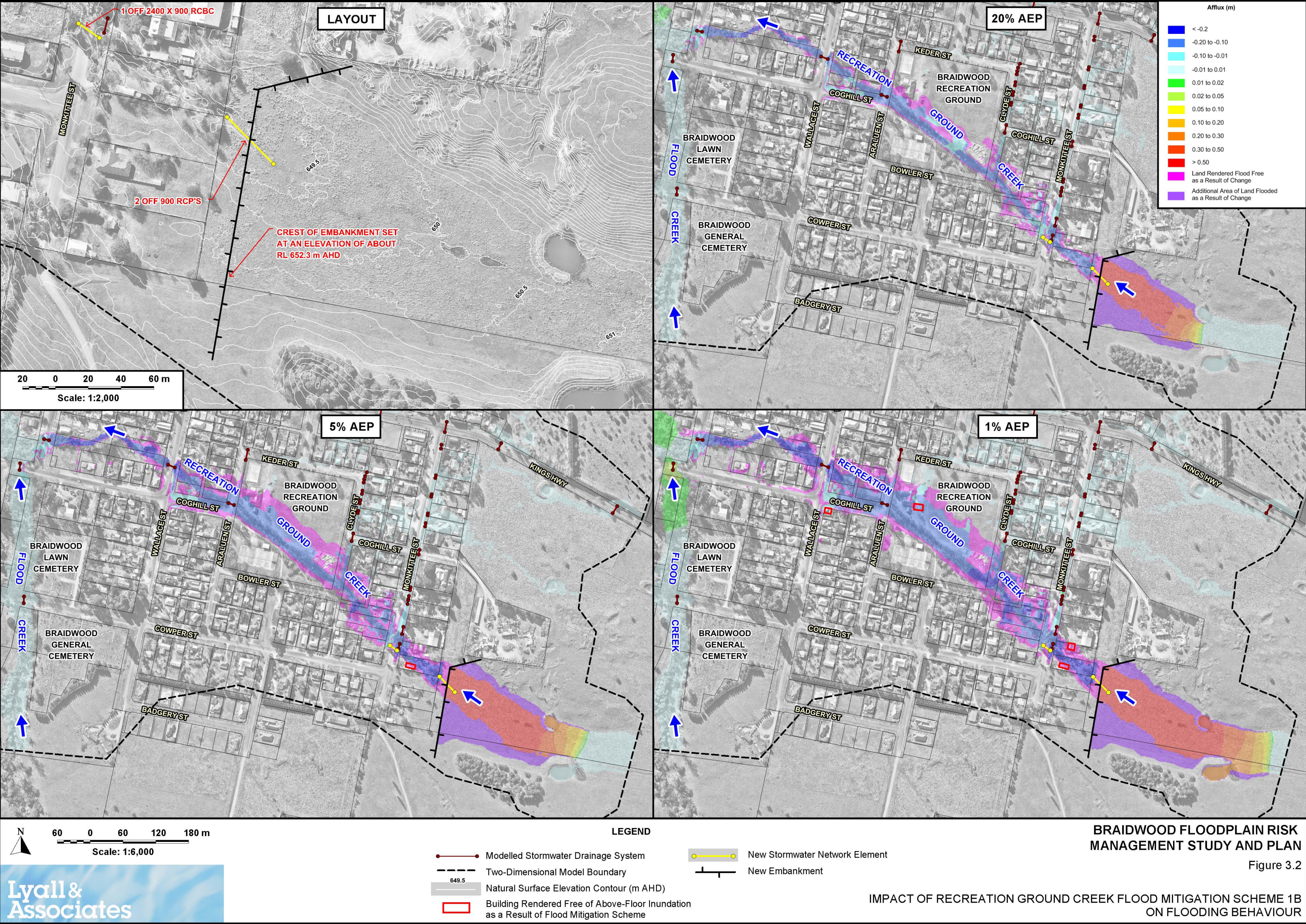
**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

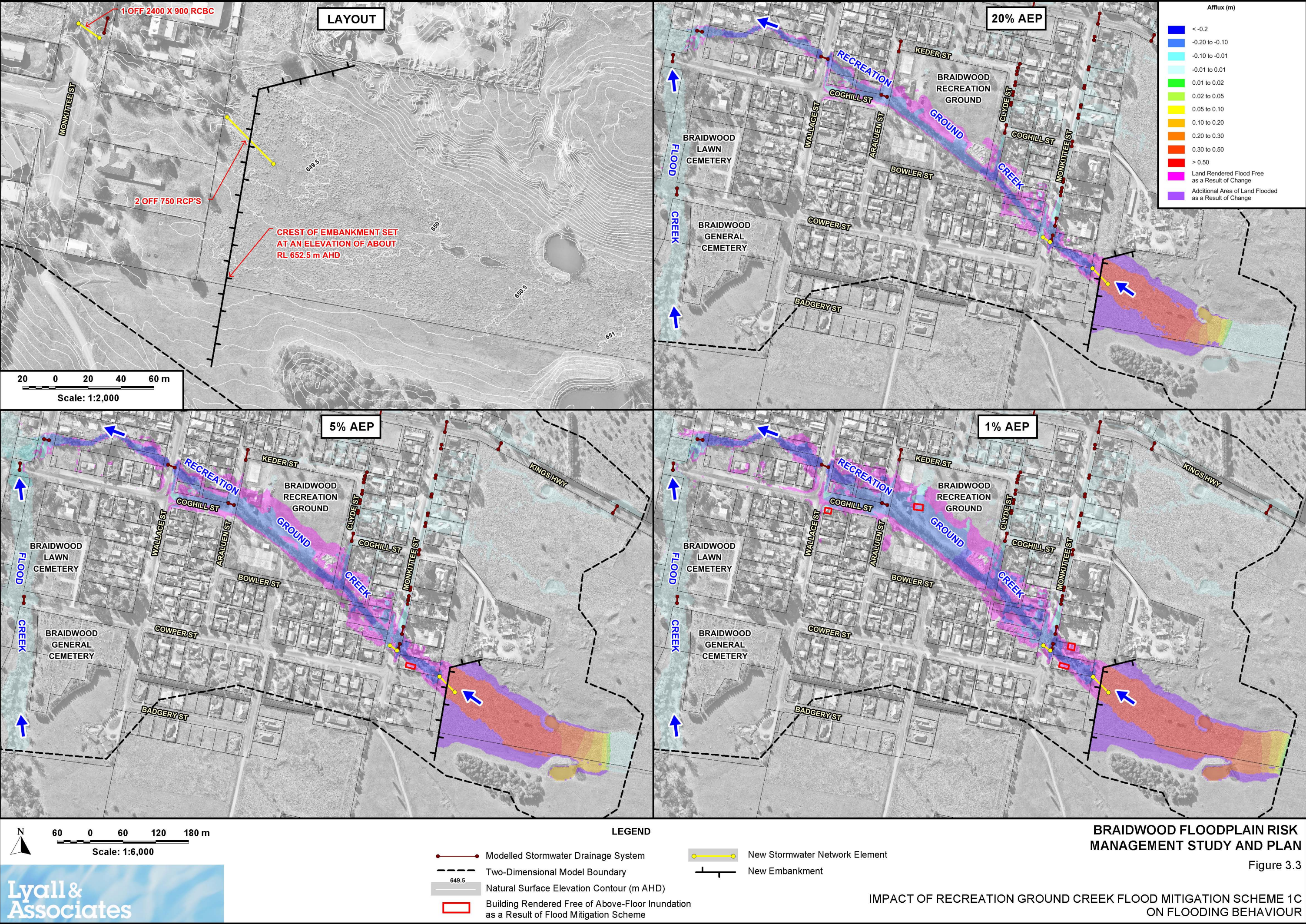
Figure 2.13
(Sheet 3 of 3)

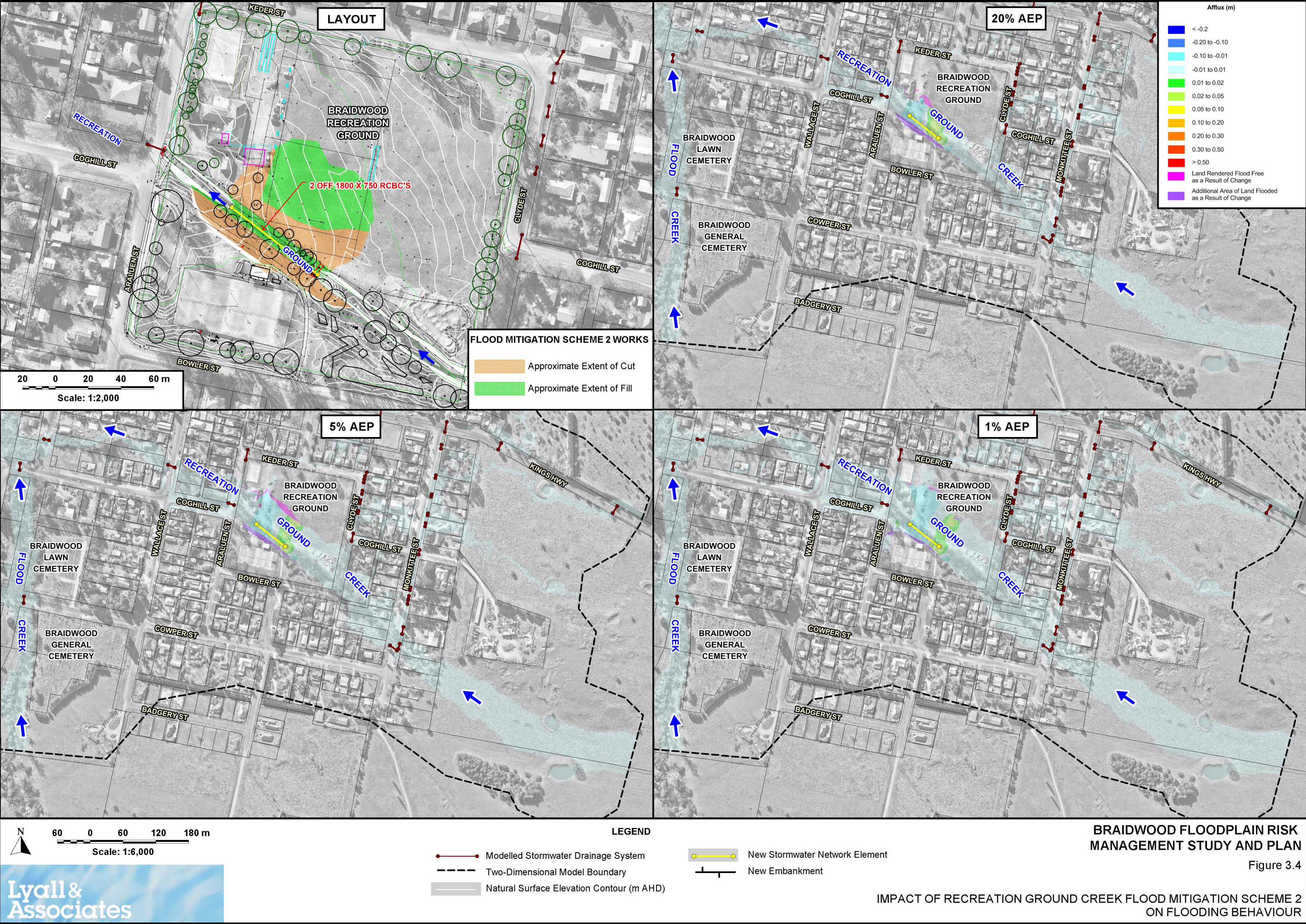
IMPACT OF INCREASED RAINFALL INTENSITIES ON EXTENT OF FLOODING
1% AEP

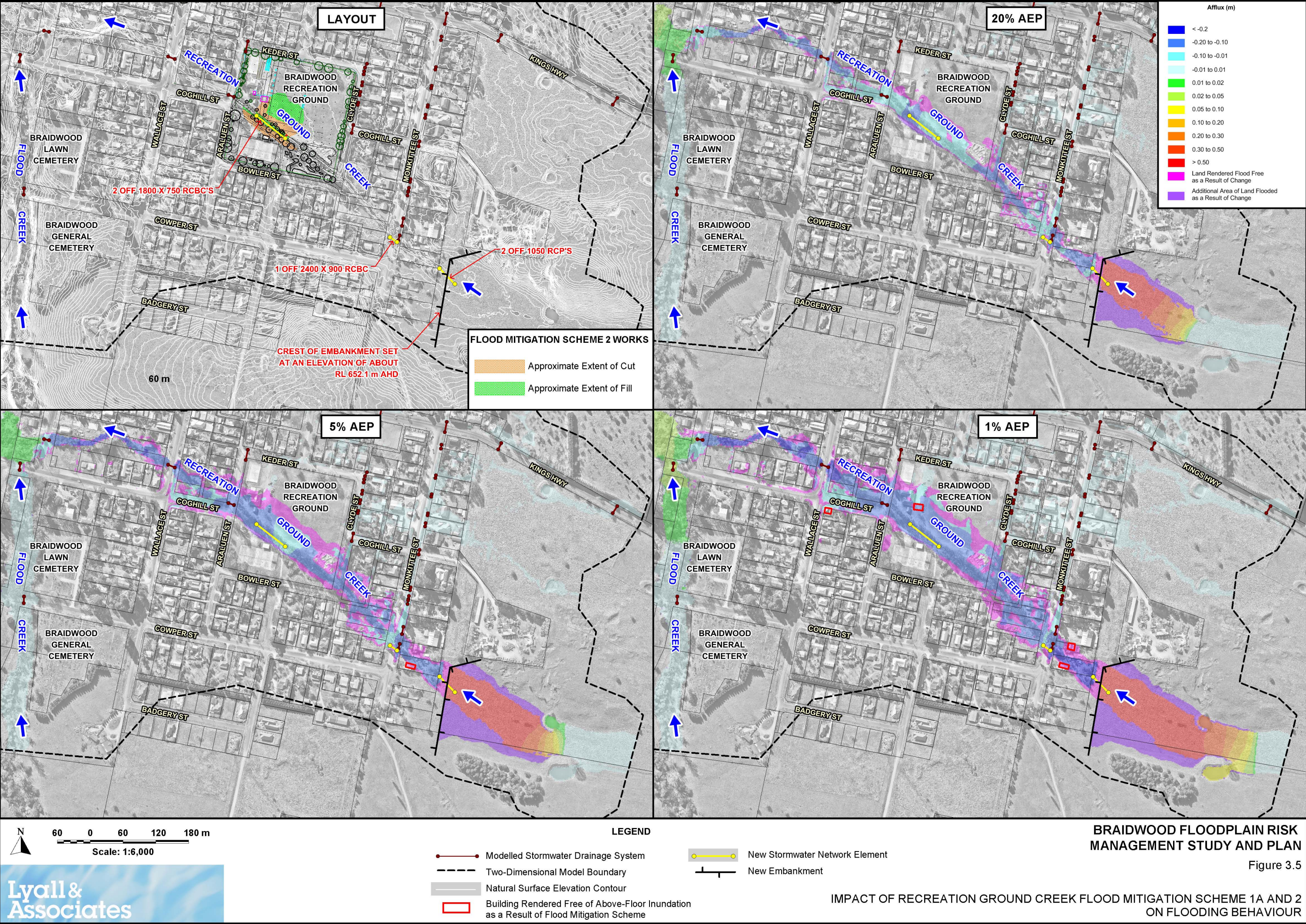


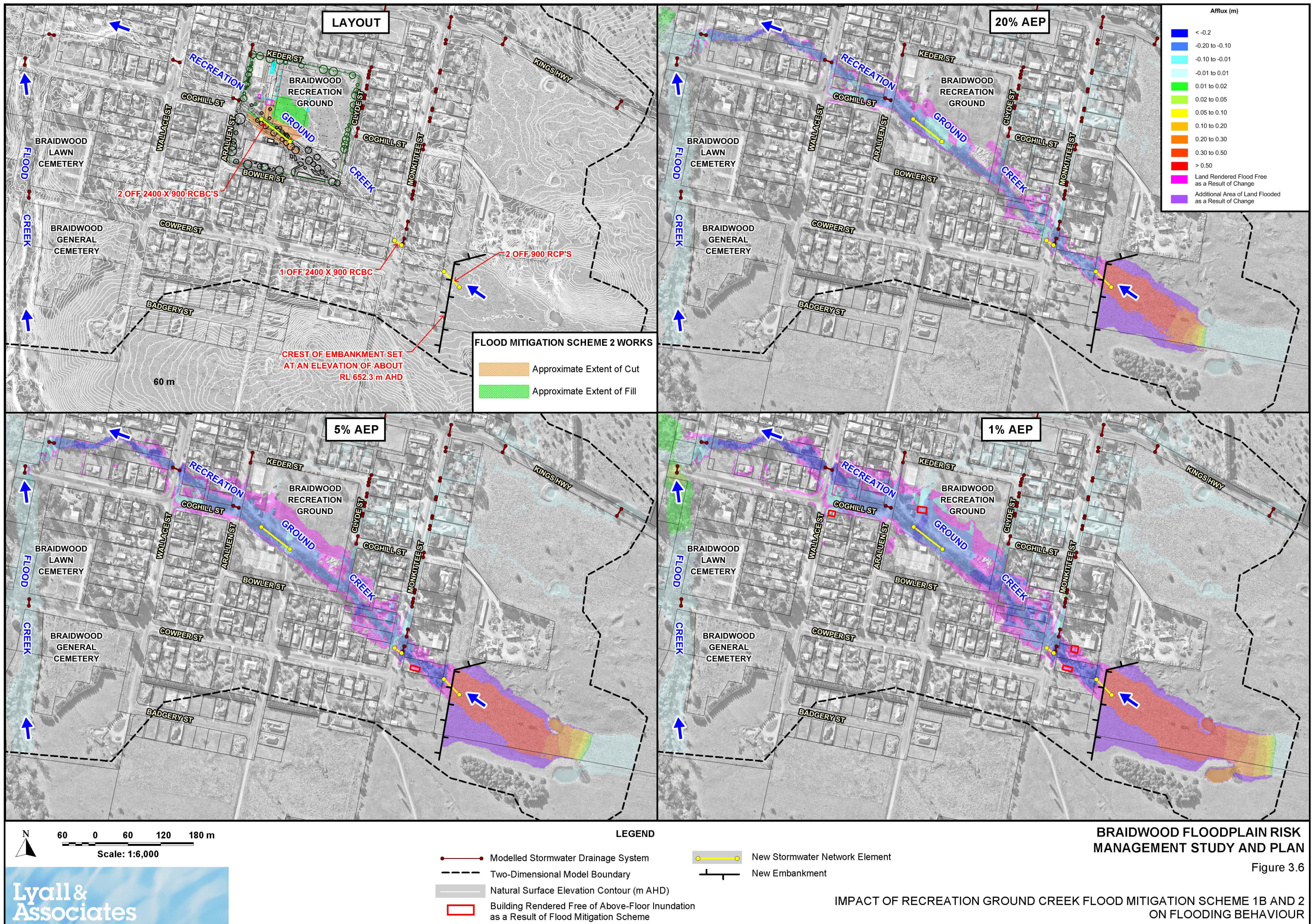


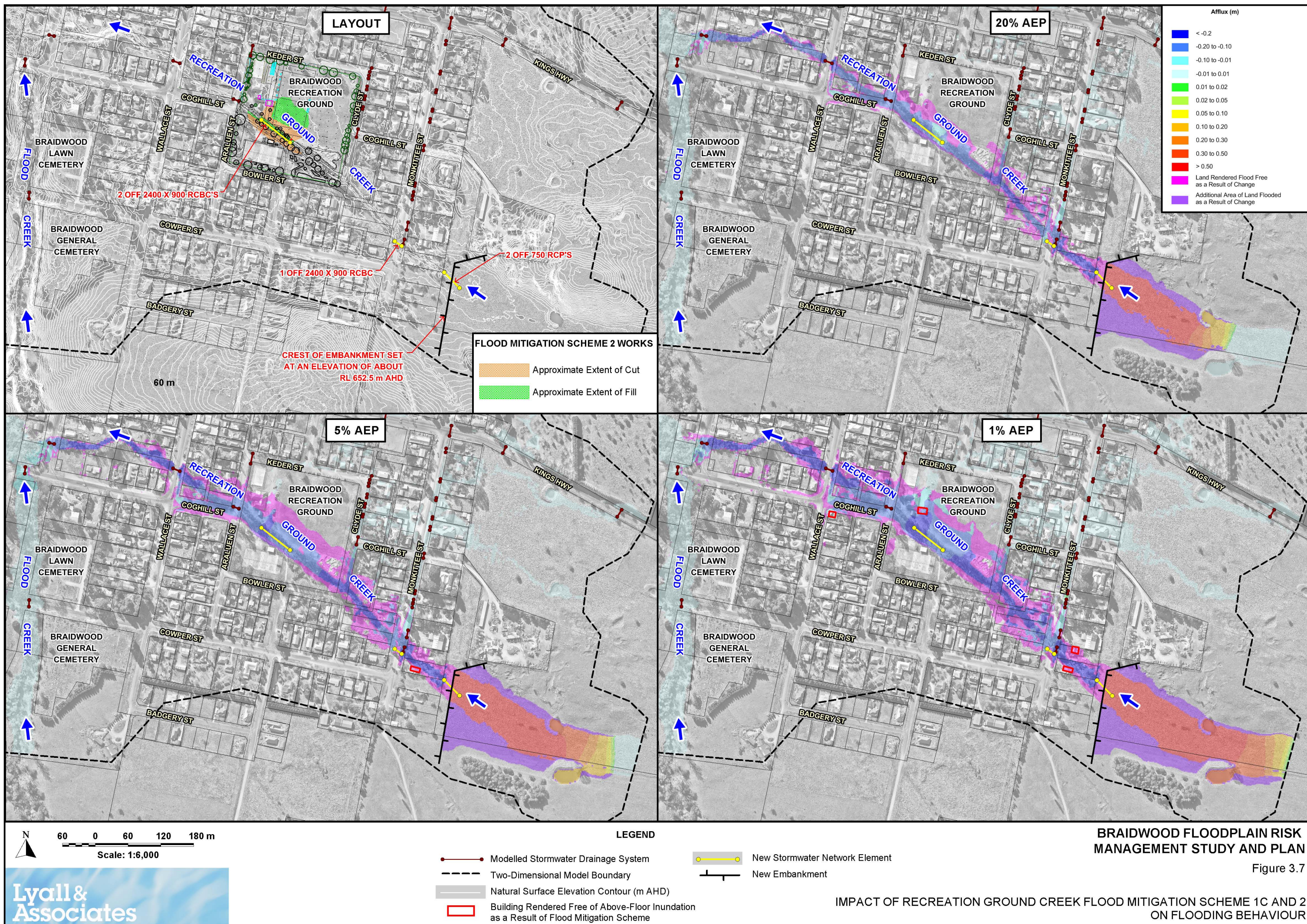


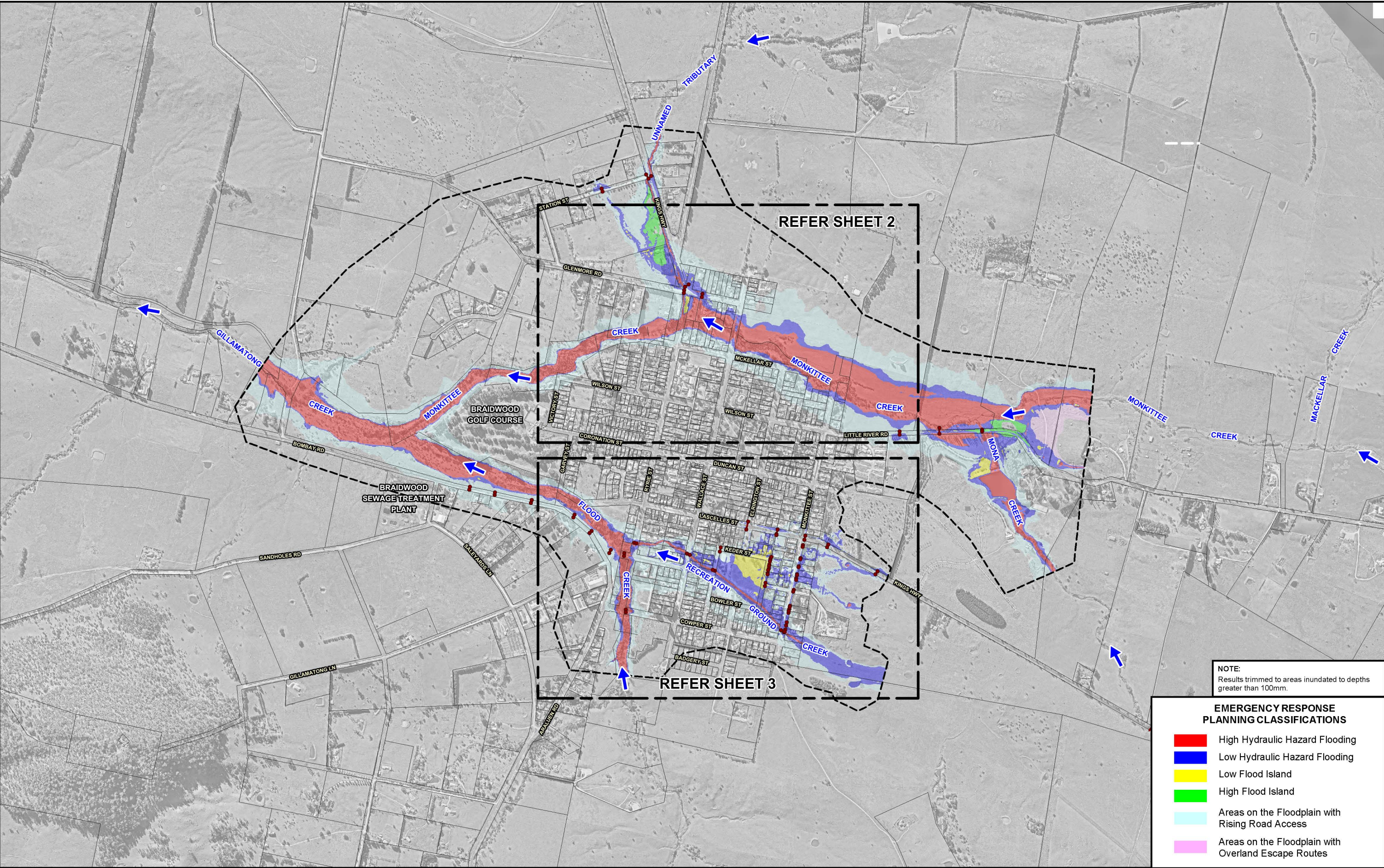


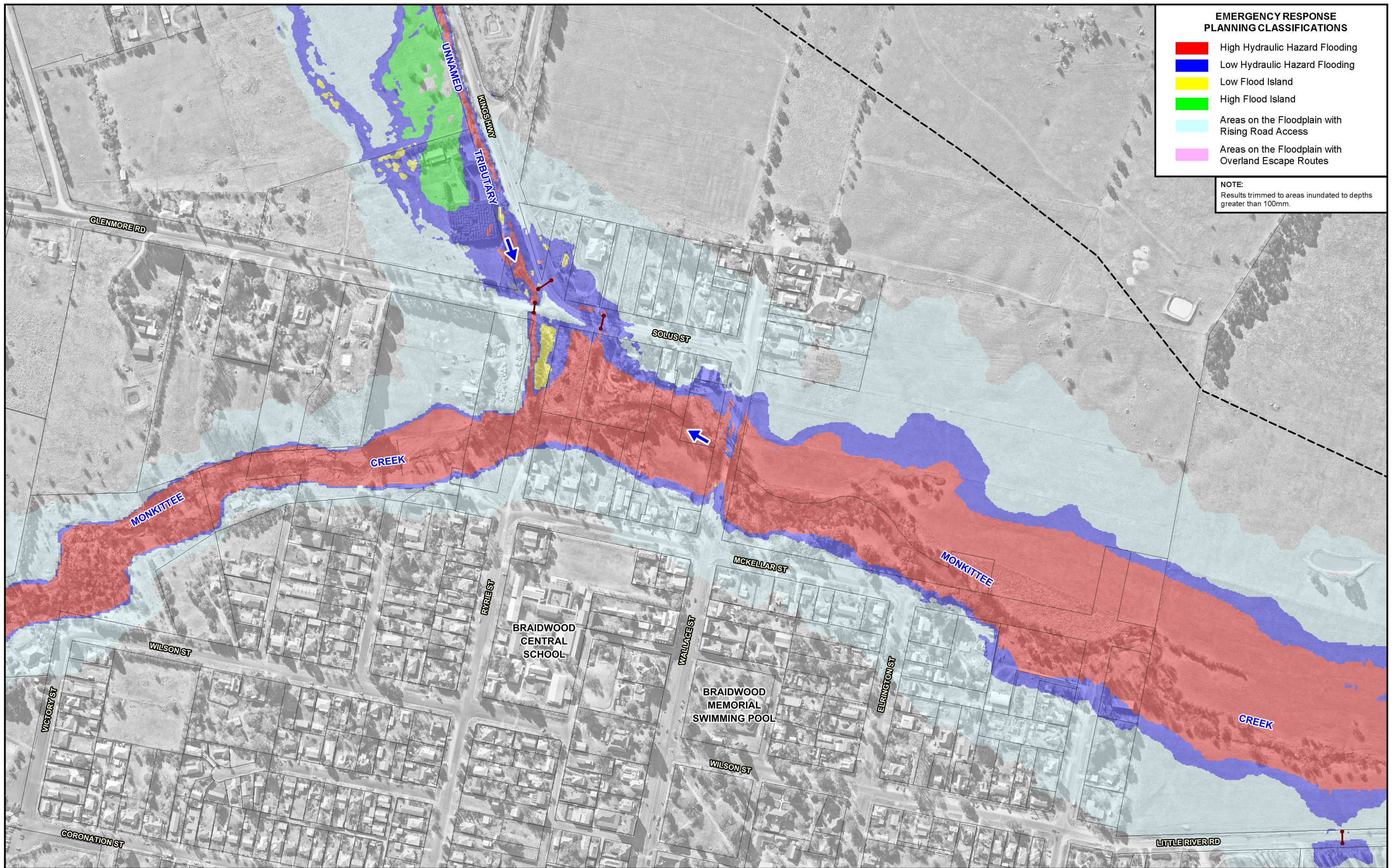








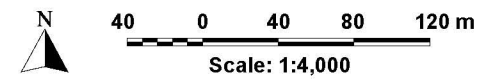




EMERGENCY RESPONSE PLANNING CLASSIFICATIONS

- High Hydraulic Hazard Flooding
- Low Hydraulic Hazard Flooding
- Low Flood Island
- High Flood Island
- Areas on the Floodplain with Rising Road Access
- Areas on the Floodplain with Overland Escape Routes

NOTE:
Results trimmed to areas inundated to depths greater than 100mm.



Lvall & Associates

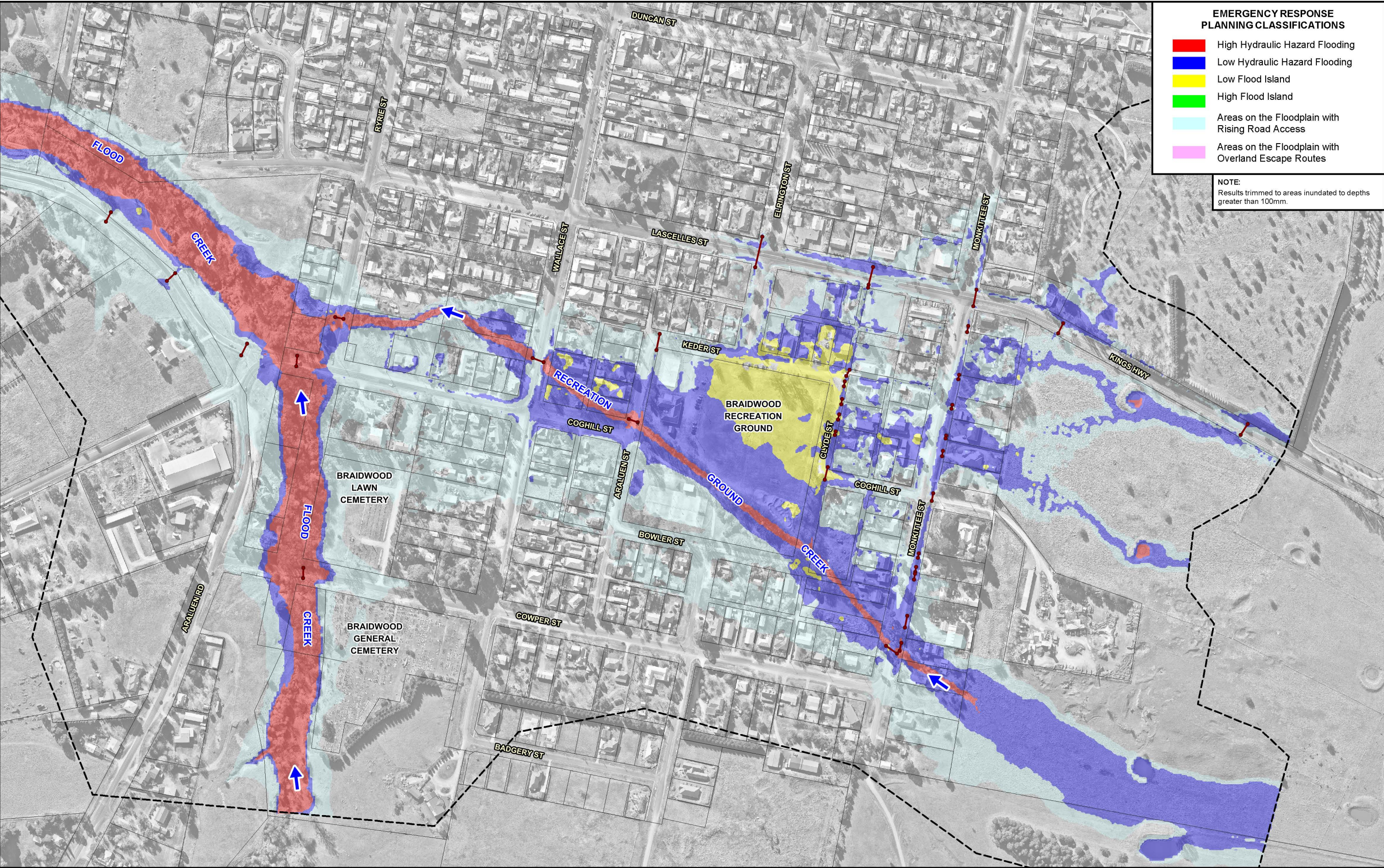
LEGEND

- Modelled Stormwater Drainage System
- Two-Dimensional Model Boundary

BRAIDWOOD FLOODPLAIN RISK MANAGEMENT STUDY AND PLAN

Figure 3.8
(Sheet 2 of 3)

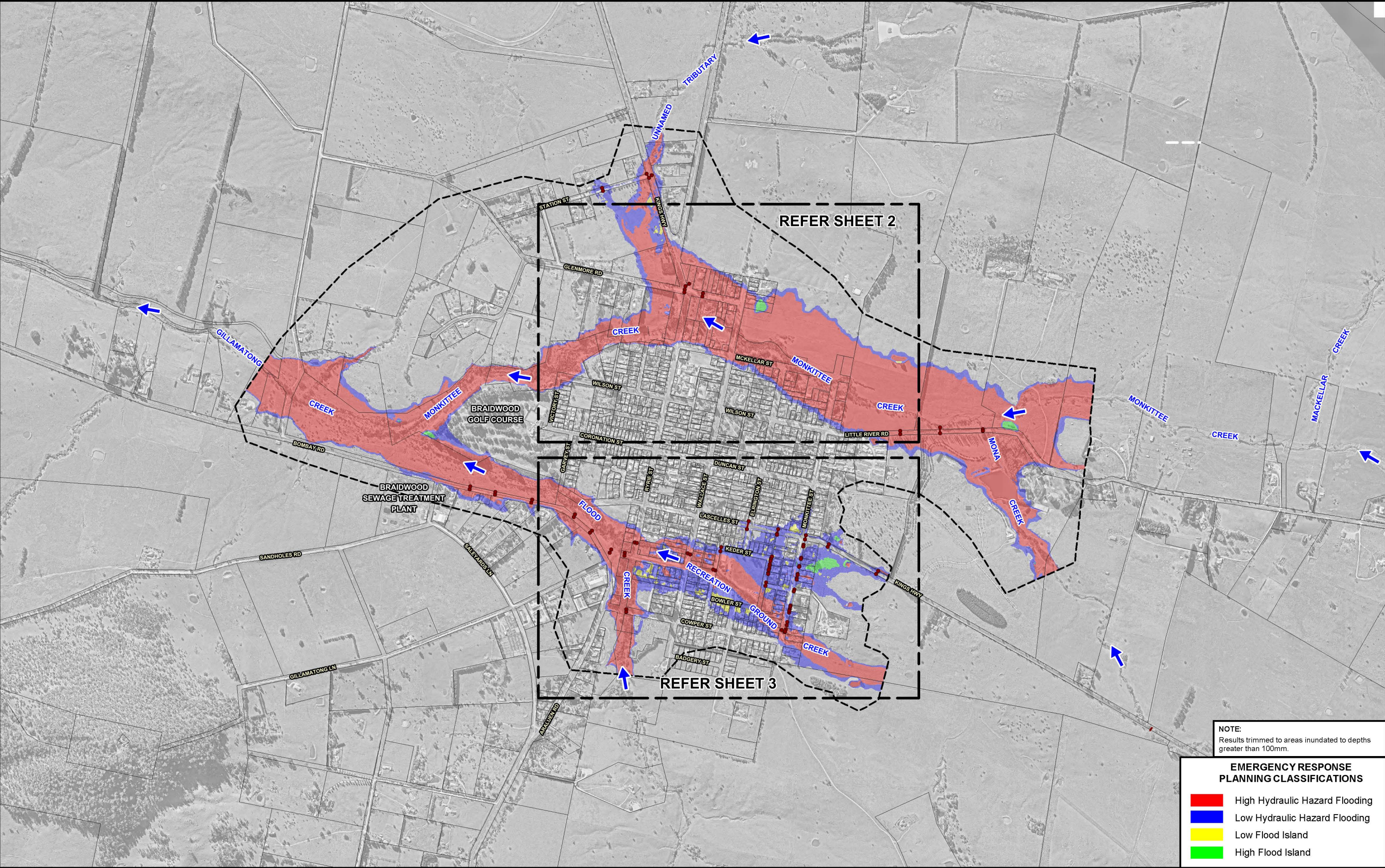
FLOOD EMERGENCY RESPONSE PLANNING CLASSIFICATIONS
1% AEP

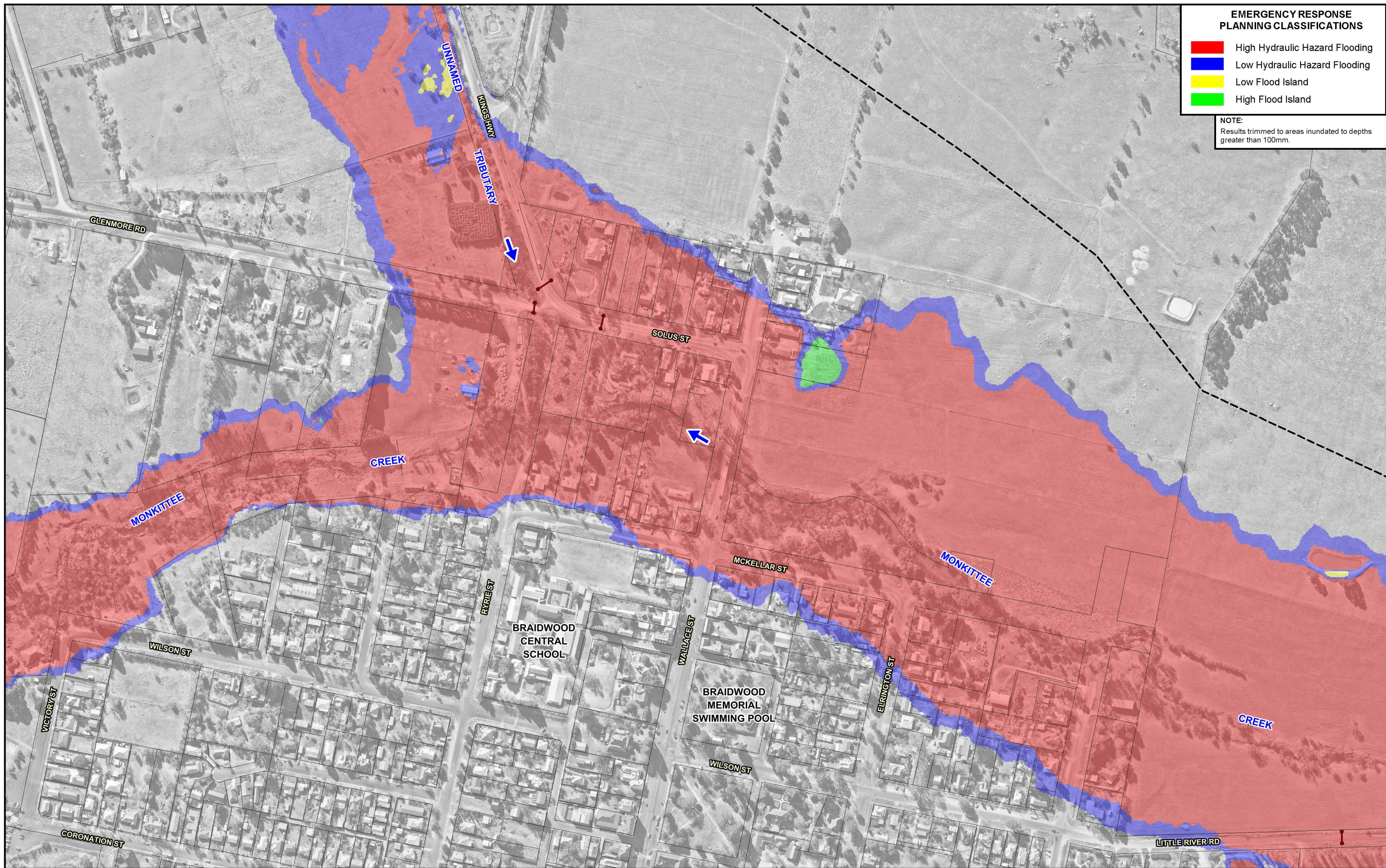


**EMERGENCY RESPONSE
PLANNING CLASSIFICATIONS**

- High Hydraulic Hazard Flooding
- Low Hydraulic Hazard Flooding
- Low Flood Island
- High Flood Island
- Areas on the Floodplain with Rising Road Access
- Areas on the Floodplain with Overland Escape Routes

NOTE:
Results trimmed to areas inundated to depths greater than 100mm.

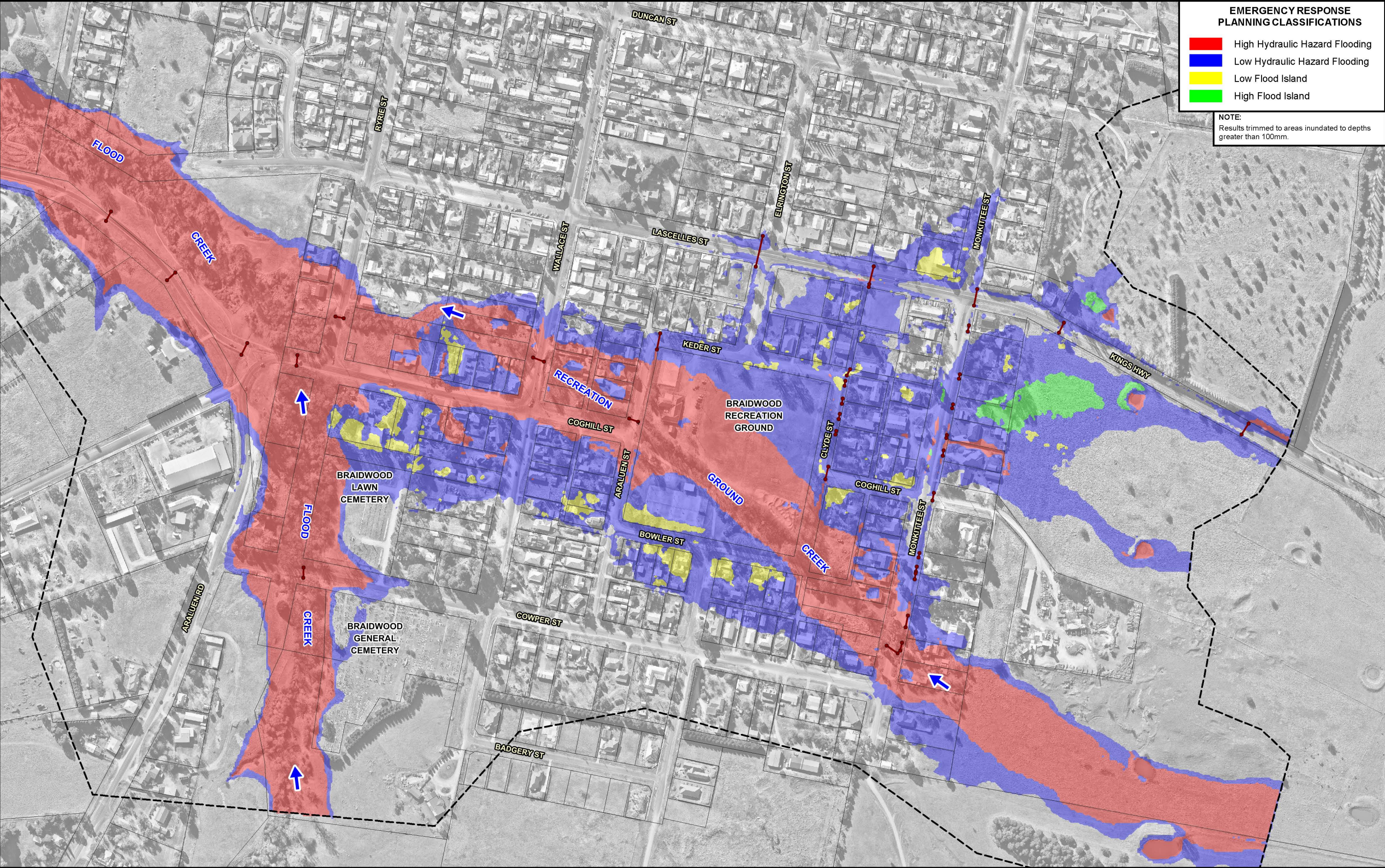




**EMERGENCY RESPONSE
PLANNING CLASSIFICATIONS**

- High Hydraulic Hazard Flooding
- Low Hydraulic Hazard Flooding
- Low Flood Island
- High Flood Island

NOTE:
Results trimmed to areas inundated to depths greater than 100mm.



**EMERGENCY RESPONSE
PLANNING CLASSIFICATIONS**

Red	High Hydraulic Hazard Flooding
Blue	Low Hydraulic Hazard Flooding
Yellow	Low Flood Island
Green	High Flood Island

NOTE:
Results trimmed to areas inundated to depths greater than 100mm.

APPENDIX B

HYDROLOGIC AND HYDRAULIC MODELLING

LIST OF FIGURES (APPENDIX B)

- B2.1 Hydrologic Model Layout (2 Sheets)
- B2.2 Design Inflow Hydrographs

- B3.1 TUFLOW Model Layout (3 Sheets)
- B3.2 TUFLOW Schematisation of Floodplain
- B3.3 TUFLOW Model Results – 20% AEP (3 Sheets)
- B3.4 TUFLOW Model Results – 5% AEP (3 Sheets)
- B3.5 TUFLOW Model Results – 2% AEP (3 Sheets)
- B3.6 TUFLOW Model Results – 0.5% AEP (3 Sheets)
- B3.7 TUFLOW Model Results – 0.2% AEP (3 Sheets)



N 500 0 500 1000 1500 m
Scale: 1:50,000

Lyal & Associates

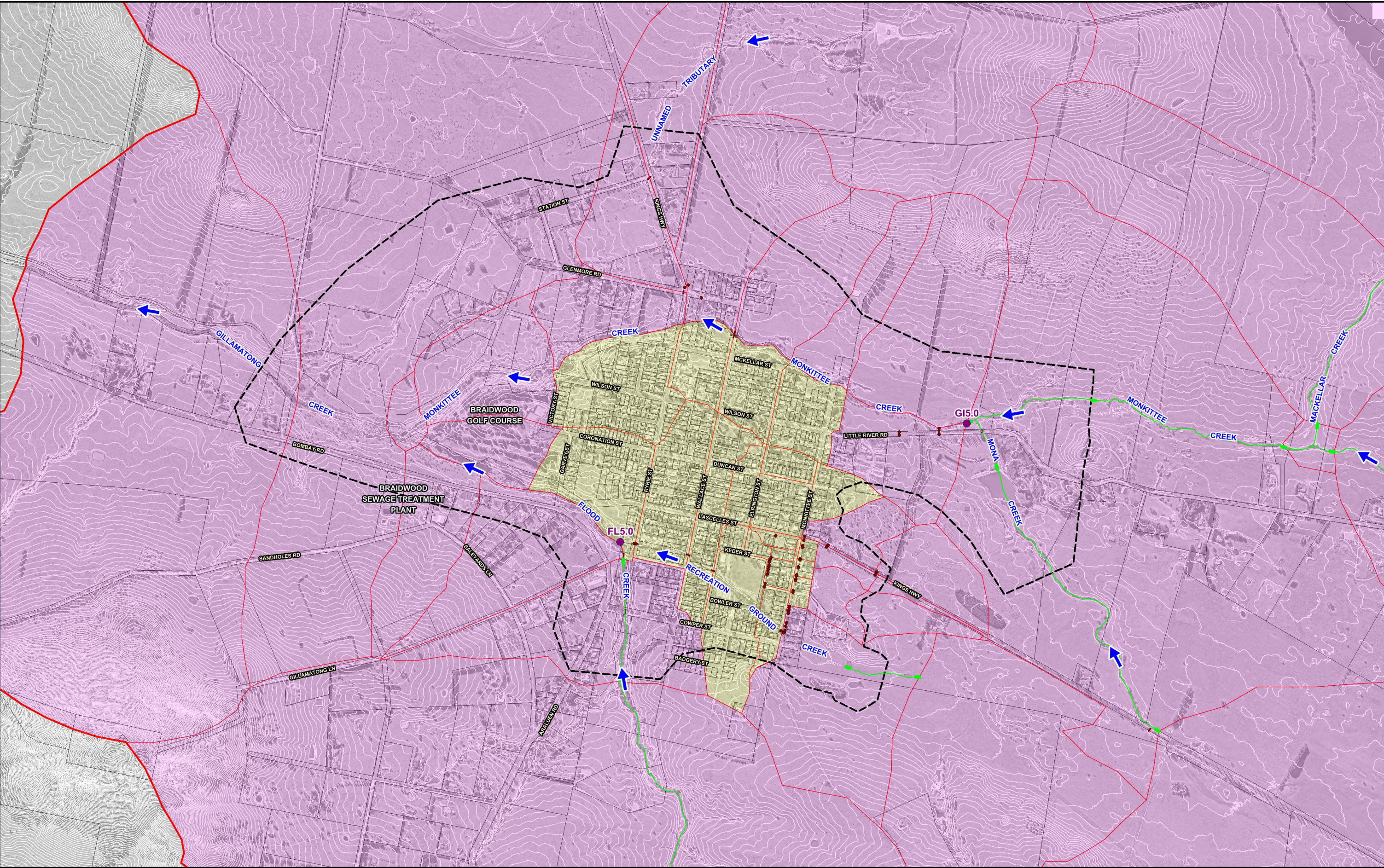
LEGEND

- | | |
|--|--|
| — Study Catchment | - - - Two-Dimensional Model Boundary |
| — Sub-Catchment Boundary | — RAFTS Sub-Catchment Link |
| ILSAX Sub-Catchment | A Monkittee Creek Catchment PMP Ellipses |
| RAFTS Sub-Catchment | A Flood Creek Catchment PMP Ellipses |

BRAIDWOOD FLOODPLAIN RISK MANAGEMENT STUDY AND PLAN

Figure B2.1
(Sheet 1 of 2)

HYDROLOGIC MODEL LAYOUT



N

150 0 150 300 450 m

Scale: 1:15,000

Lyall & Associates

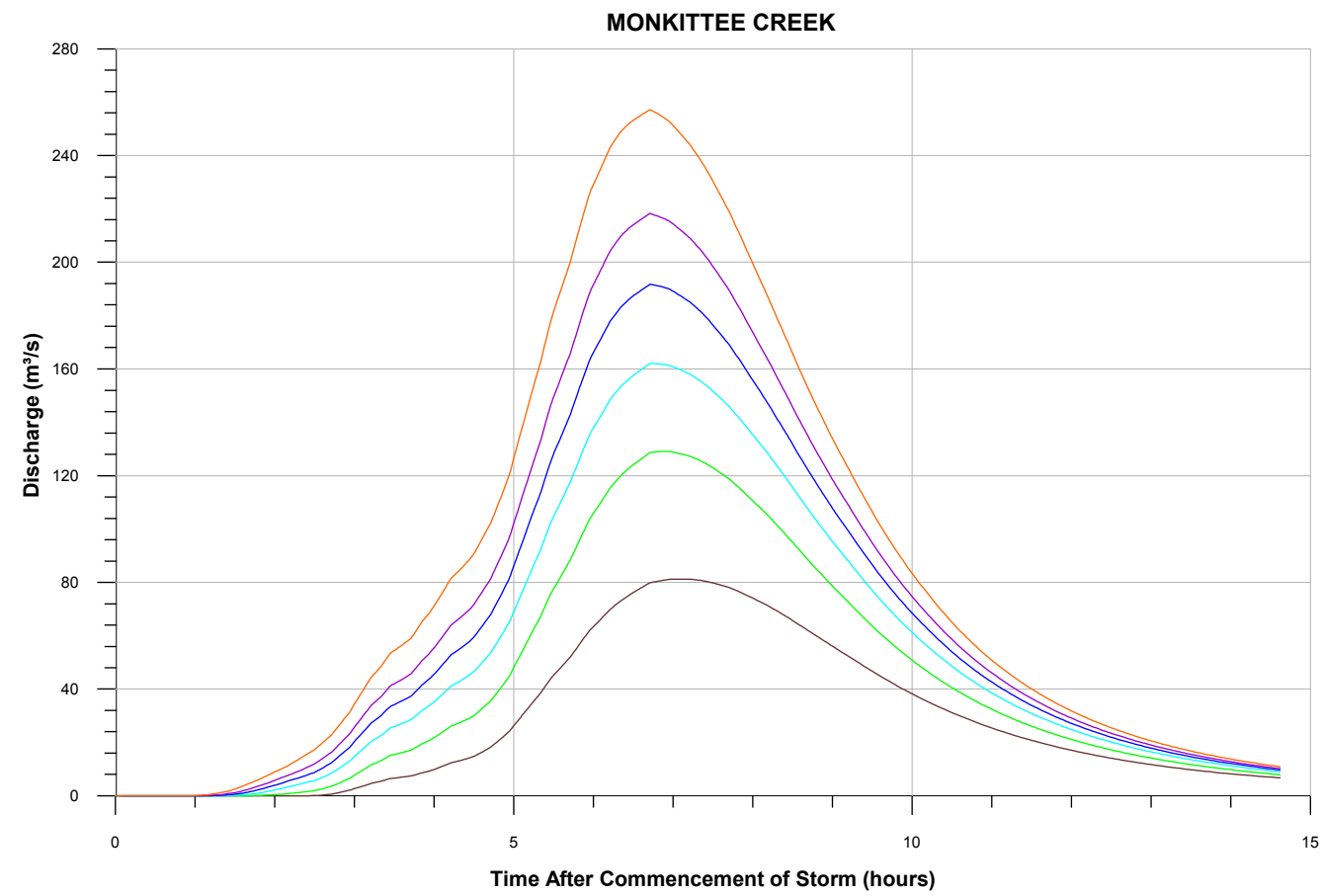
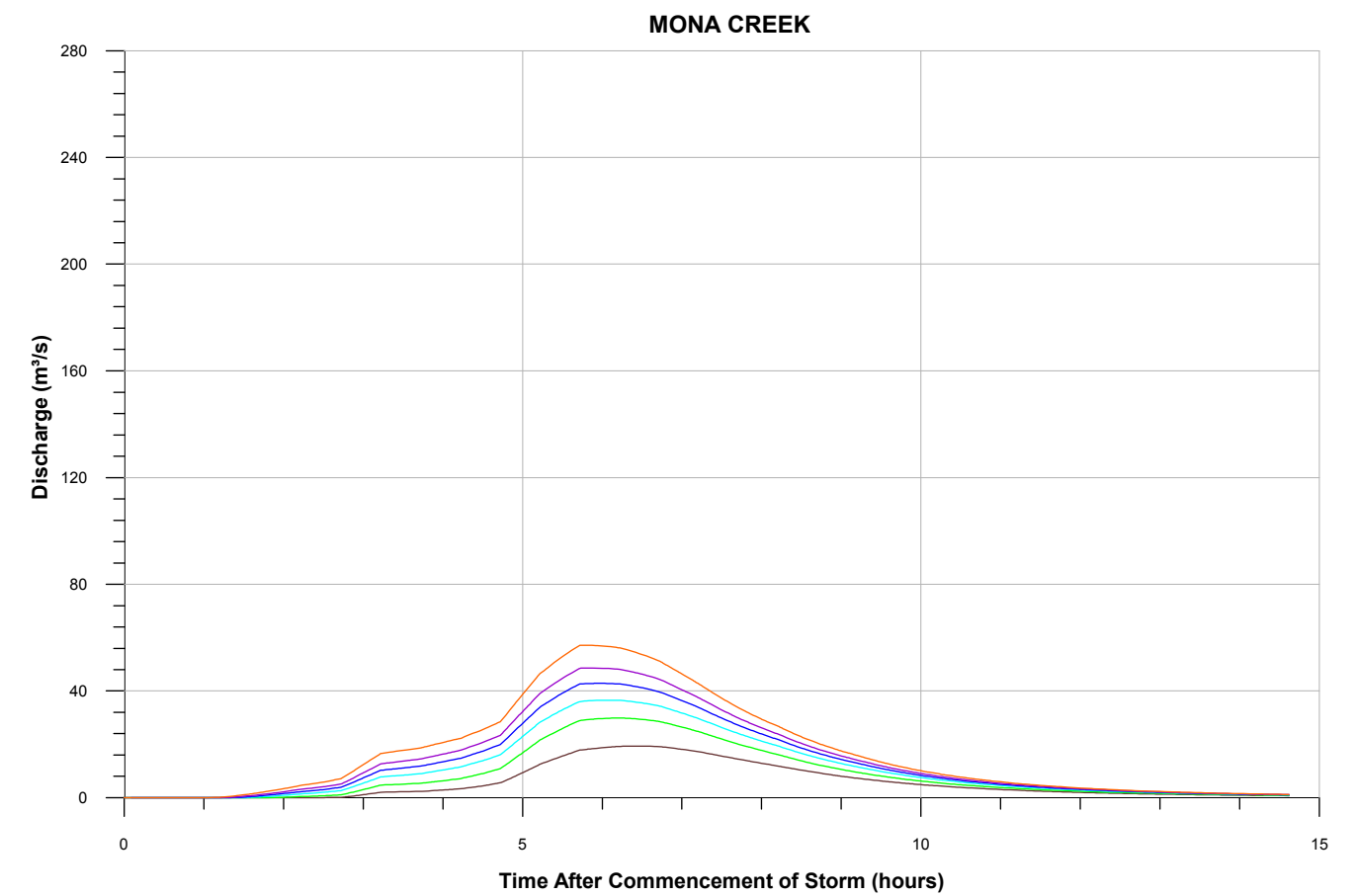
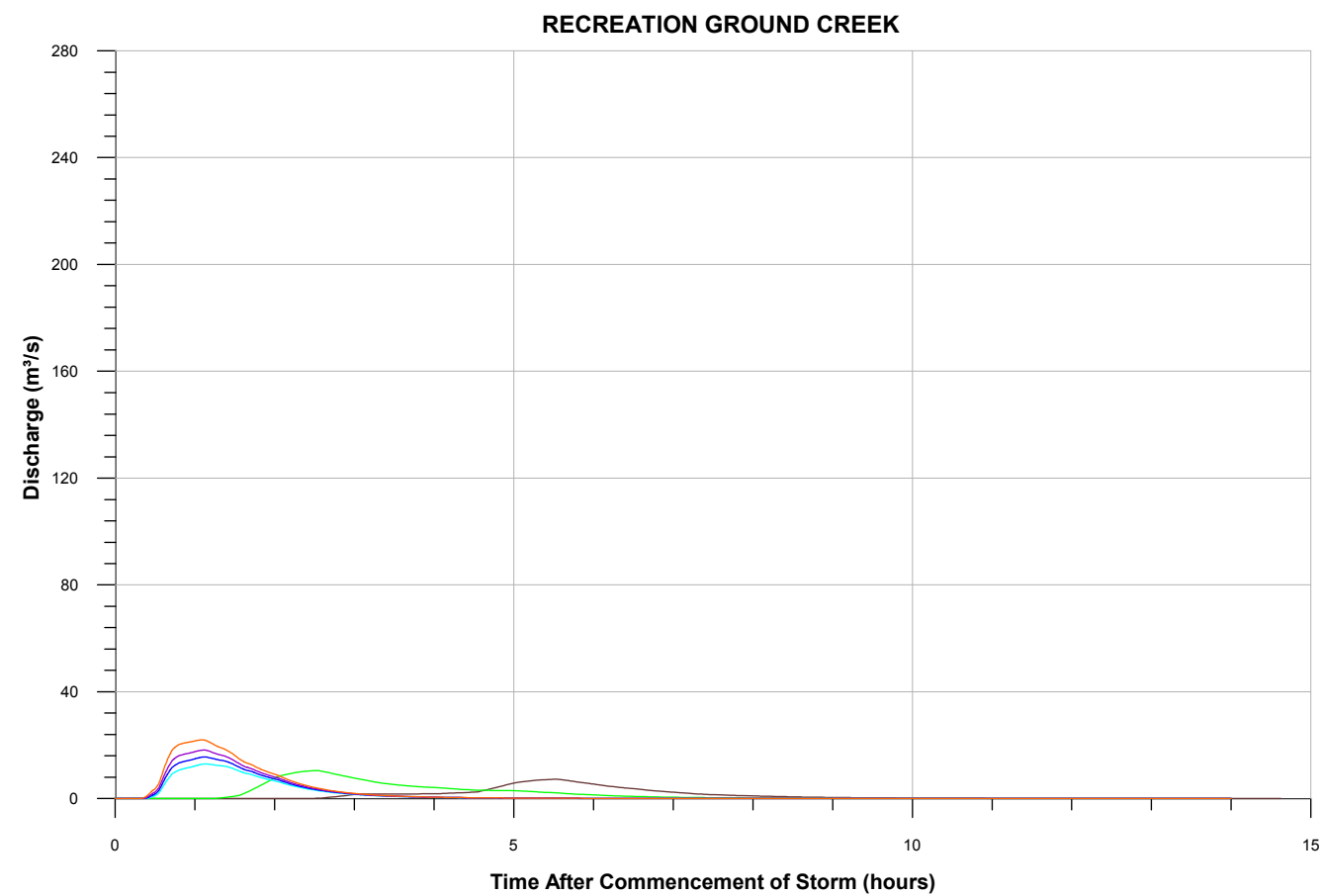
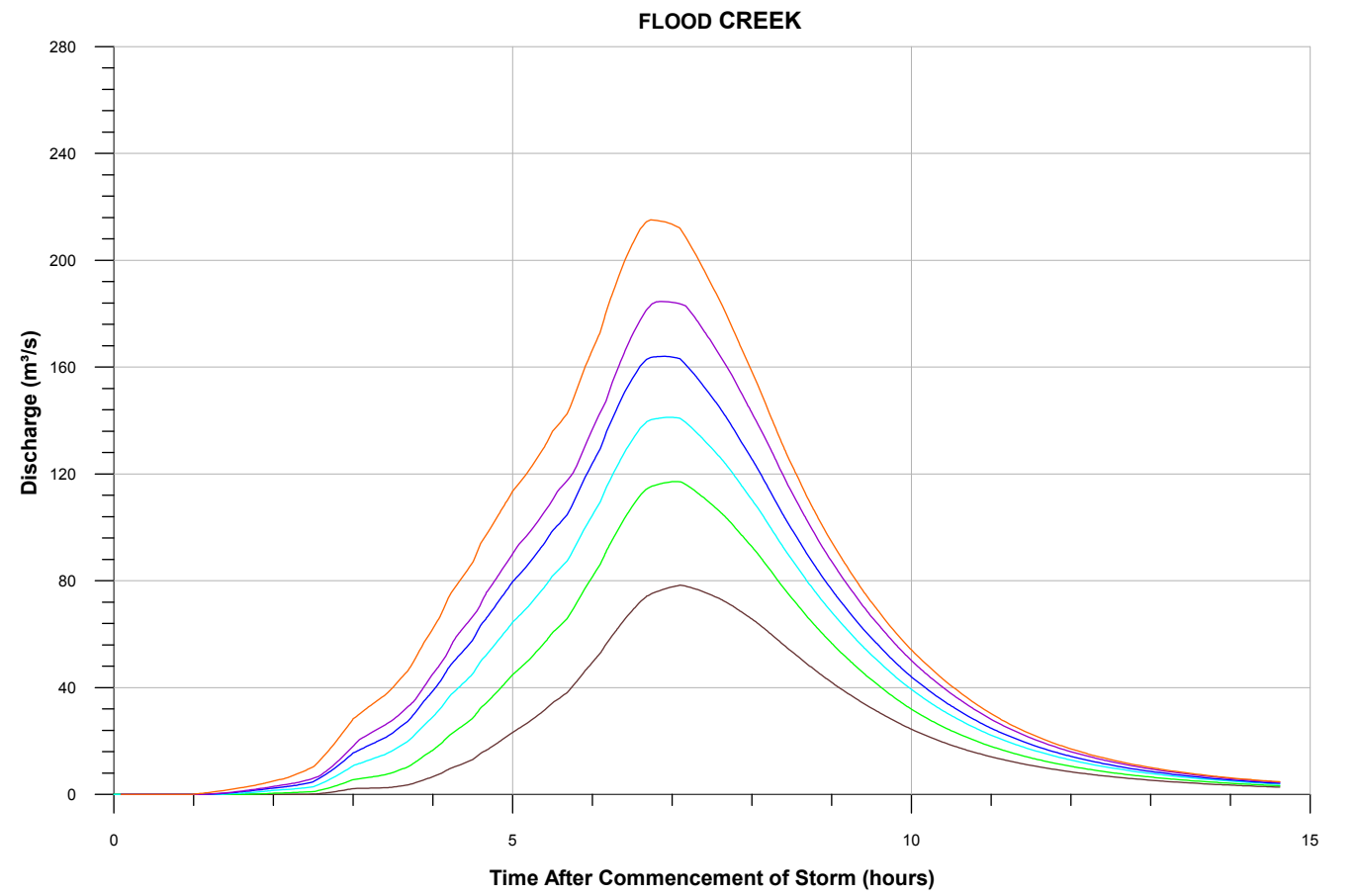
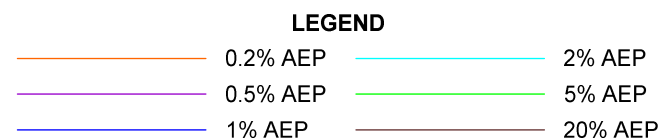
LEGEND

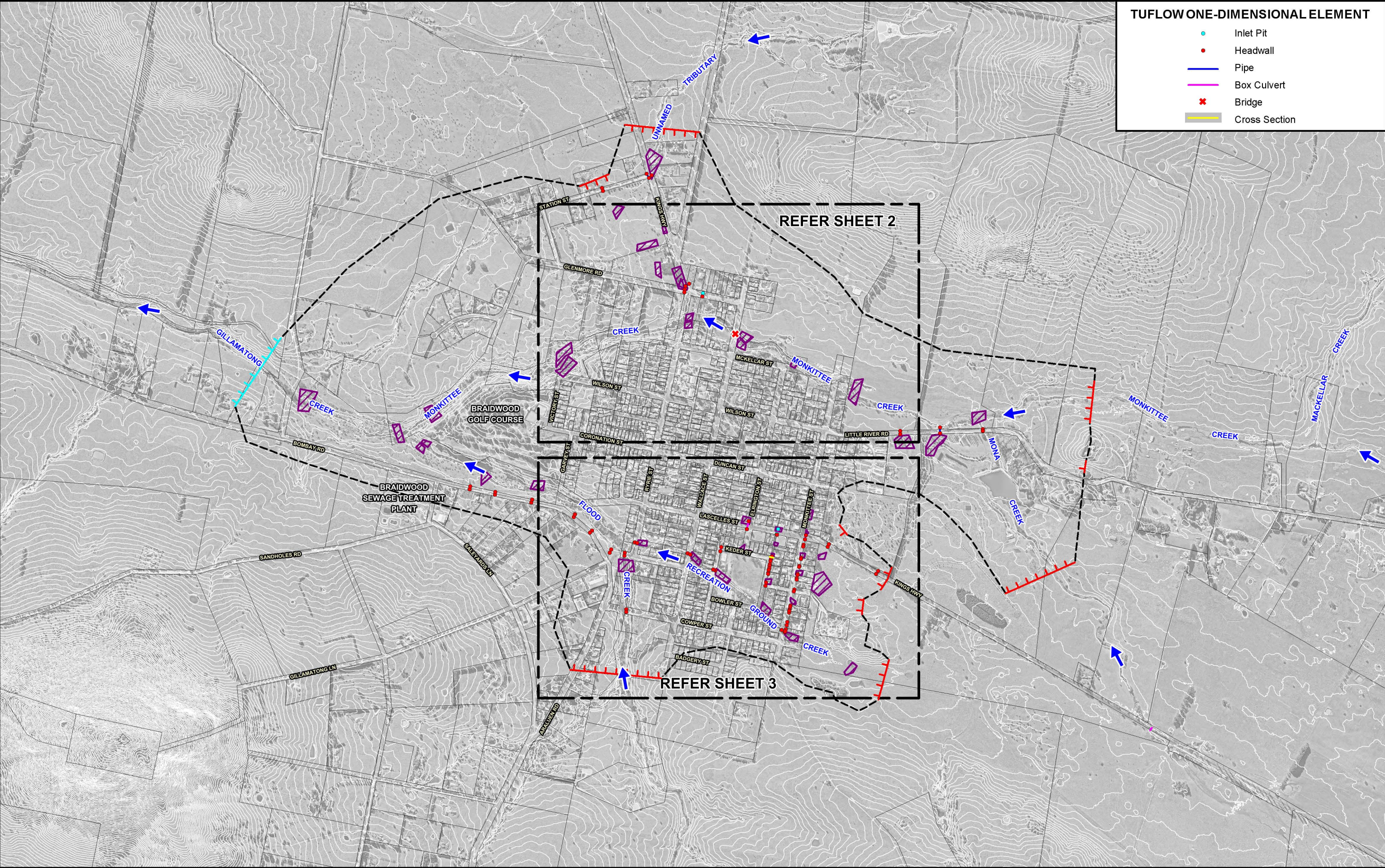
	Study Catchment		Two-Dimensional Model Boundary
	Sub-Catchment Boundary		RAFTS Sub-Catchment Link
	ILSAX Sub-Catchment		Monkittee Creek Catchment PMP Ellipses
	RAFTS Sub-Catchment		Flood Creek Catchment PMP Ellipses

**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

Figure B2.1
(Sheet 2 of 2)

HYDROLOGIC MODEL LAYOUT





TUFLOW ONE-DIMENSIONAL ELEMENT

- Inlet Pit
- Headwall
- Pipe
- Box Culvert
- Bridge
- Cross Section

TUFLOW BOUNDARY CONDITIONS

- Inflow - Rain Boundary
- Inflow Boundary
- Two-Dimensional Model Boundary
- Outlet - Stage-Discharge

BRAIDWOOD FLOODPLAIN RISK MANAGEMENT STUDY AND PLAN

Figure B3.1
(Sheet 1 of 3)

TUFLOW MODEL LAYOUT



TUFLOW ONE-DIMENSIONAL ELEMENT

- Inlet Pit
- Headwall
- Pipe
- Box Culvert
- Bridge
- Cross Section

TUFLOW BOUNDARY CONDITIONS

- Inflow - Rain Boundary
- Inflow - Point Source
- Inflow Boundary
- Two-Dimensional Model Boundary

BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN

Figure B3.1
(Sheet 2 of 3)

TUFLOW MODEL LAYOUT



TUFLOW ONE-DIMENSIONAL ELEMENT

- Inlet Pit
- Headwall
- Pipe
- Box Culvert
- Cross Section

TUFLOW BOUNDARY CONDITIONS

- Inflow - Rain Boundary
- Inflow - Point Source
- Inflow Boundary
- Two-Dimensional Model Boundary

BRAIDWOOD FLOODPLAIN RISK MANAGEMENT STUDY AND PLAN

Figure B3.1
(Sheet 3 of 3)

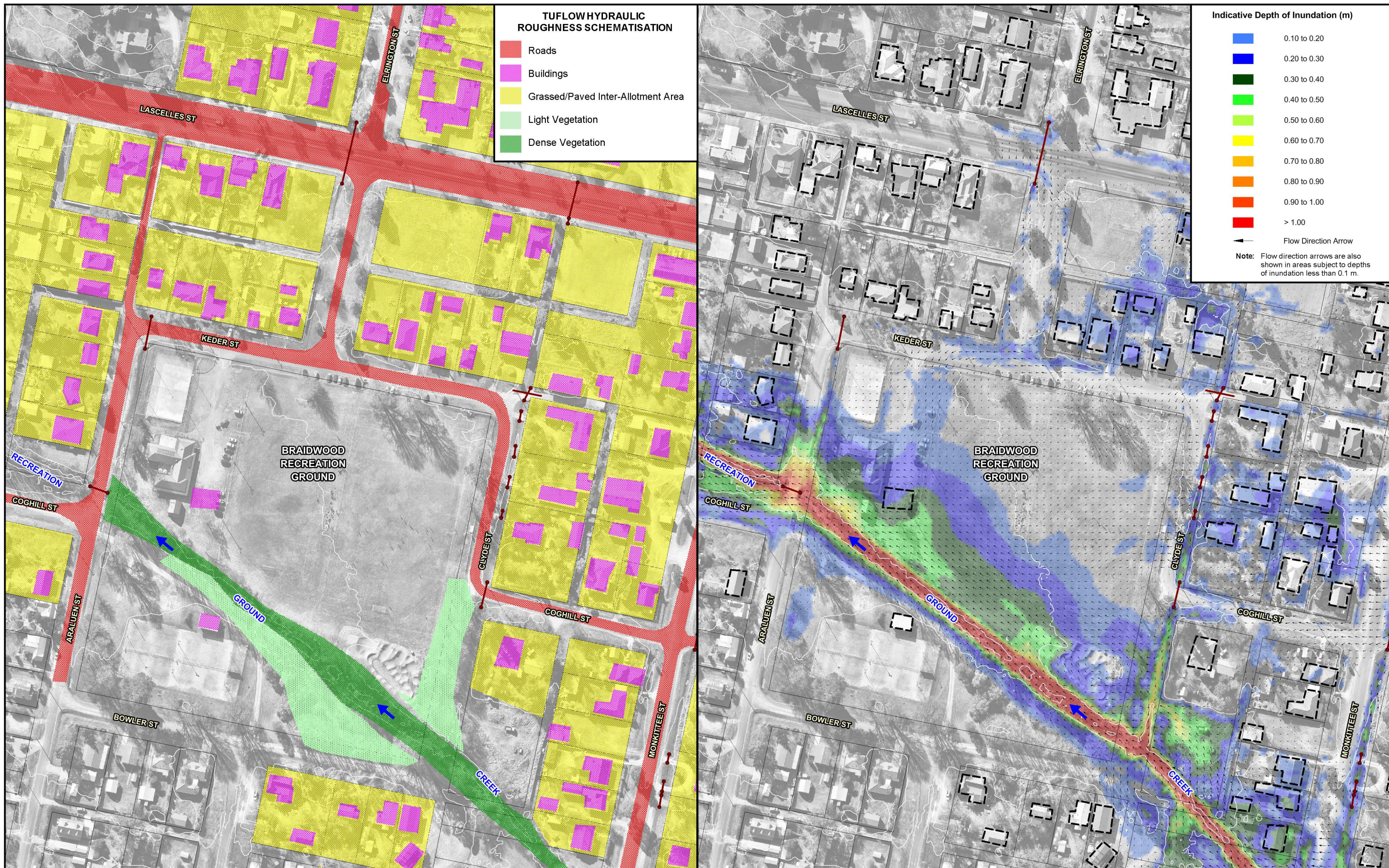
TUFLOW MODEL LAYOUT

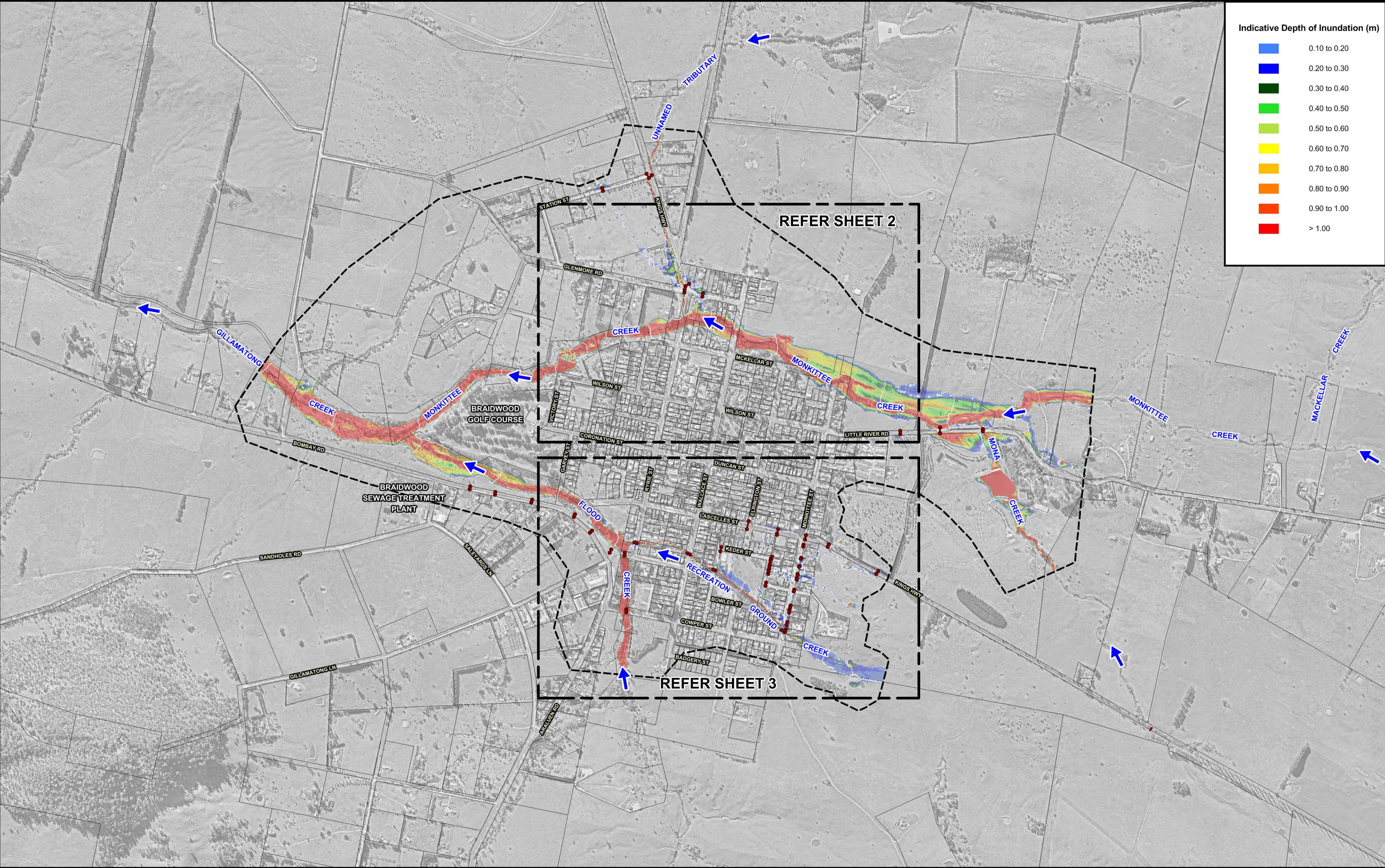
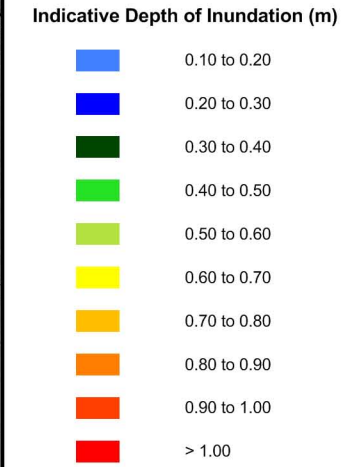
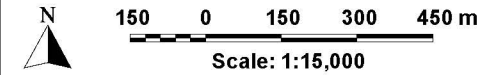
N

40 0 40 80 120 m

Scale: 1:4,000

Lyall & Associates

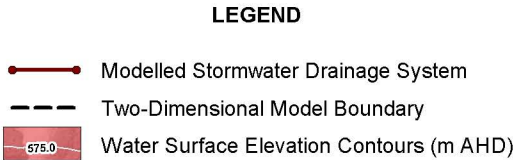


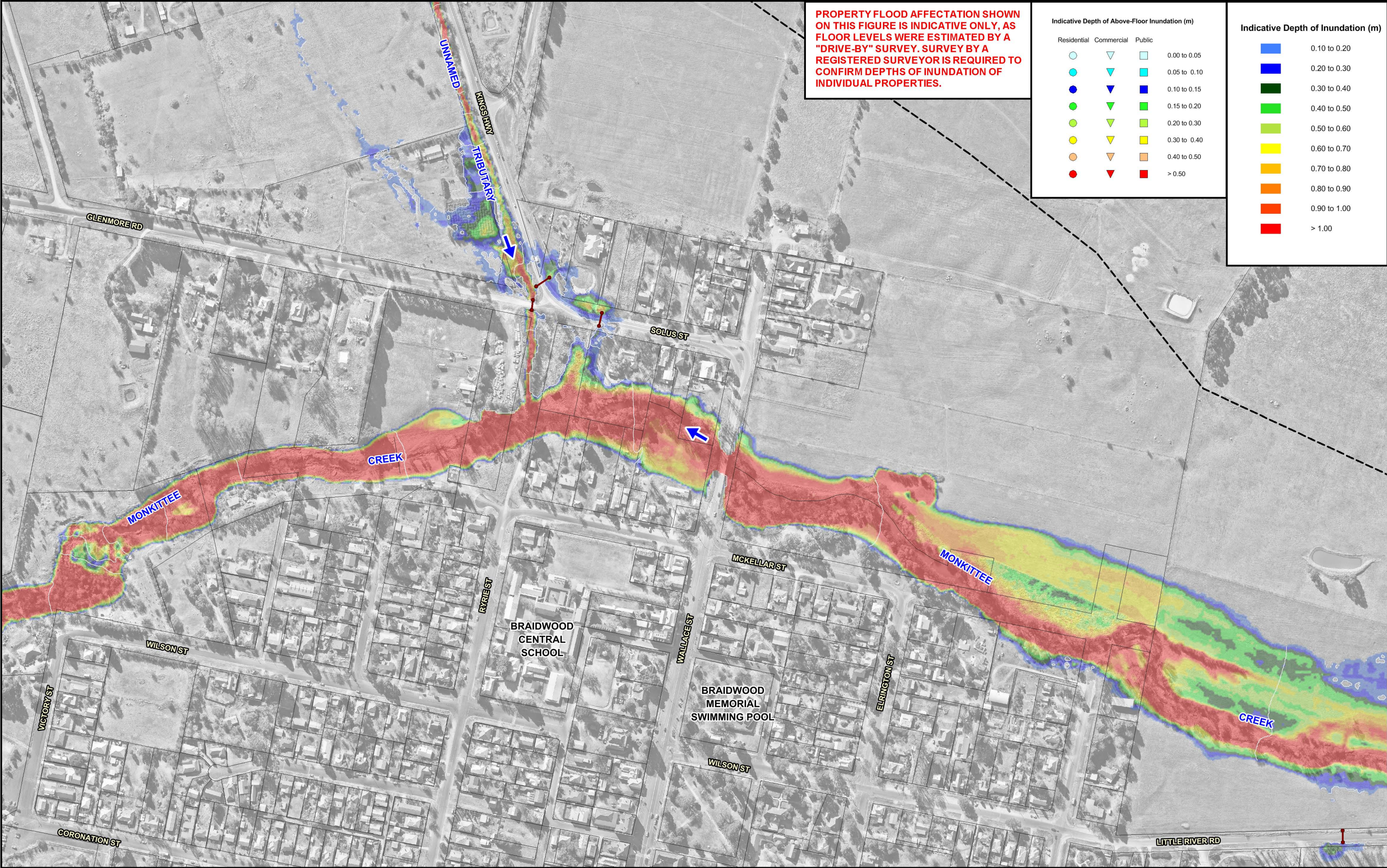


Lyall & Associates

NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.

Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.





PROPERTY FLOOD AFFECTATION SHOWN ON THIS FIGURE IS INDICATIVE ONLY, AS FLOOR LEVELS WERE ESTIMATED BY A "DRIVE-BY" SURVEY. SURVEY BY A REGISTERED SURVEYOR IS REQUIRED TO CONFIRM DEPTHS OF INUNDATION OF INDIVIDUAL PROPERTIES.

Indicative Depth of Above-Floor Inundation (m)			
Residential	Commercial	Public	
			0.00 to 0.05
			0.05 to 0.10
			0.10 to 0.15
			0.15 to 0.20
			0.20 to 0.30
			0.30 to 0.40
			0.40 to 0.50
			> 0.50

Indicative Depth of Inundation (m)	
	0.10 to 0.20
	0.20 to 0.30
	0.30 to 0.40
	0.40 to 0.50
	0.50 to 0.60
	0.60 to 0.70
	0.70 to 0.80
	0.80 to 0.90
	0.90 to 1.00
	> 1.00



4000

04080120m

Scale: 1:4,000

Lyall & Associates

NOTE:

The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.

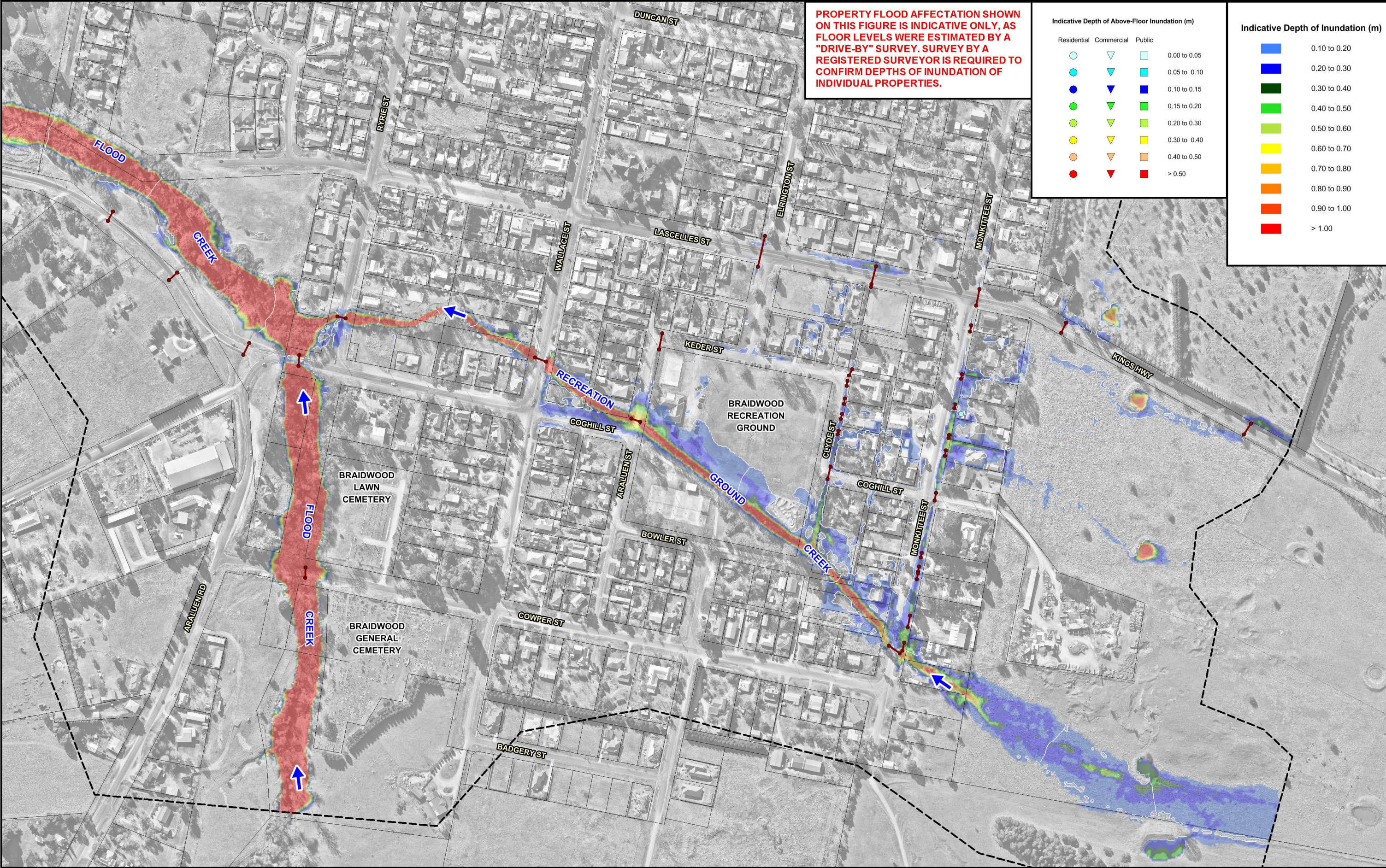
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.

LEGEND

Modelled Stormwater Drainage System

Two-Dimensional Model Boundary

Water Surface Elevation Contours (m AHD)



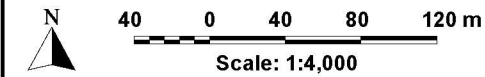
PROPERTY FLOOD AFFECTATION SHOWN ON THIS FIGURE IS INDICATIVE ONLY, AS FLOOR LEVELS WERE ESTIMATED BY A "DRIVE-BY" SURVEY. SURVEY BY A REGISTERED SURVEYOR IS REQUIRED TO CONFIRM DEPTHS OF INUNDATION OF INDIVIDUAL PROPERTIES.

Indicative Depth of Above-Floor Inundation (m)

Residential	Commercial	Public	
			0.00 to 0.05
			0.05 to 0.10
			0.10 to 0.15
			0.15 to 0.20
			0.20 to 0.30
			0.30 to 0.40
			0.40 to 0.50
			> 0.50

Indicative Depth of Inundation (m)

	0.10 to 0.20
	0.20 to 0.30
	0.30 to 0.40
	0.40 to 0.50
	0.50 to 0.60
	0.60 to 0.70
	0.70 to 0.80
	0.80 to 0.90
	0.90 to 1.00
	> 1.00



Lyall & Associates

NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.

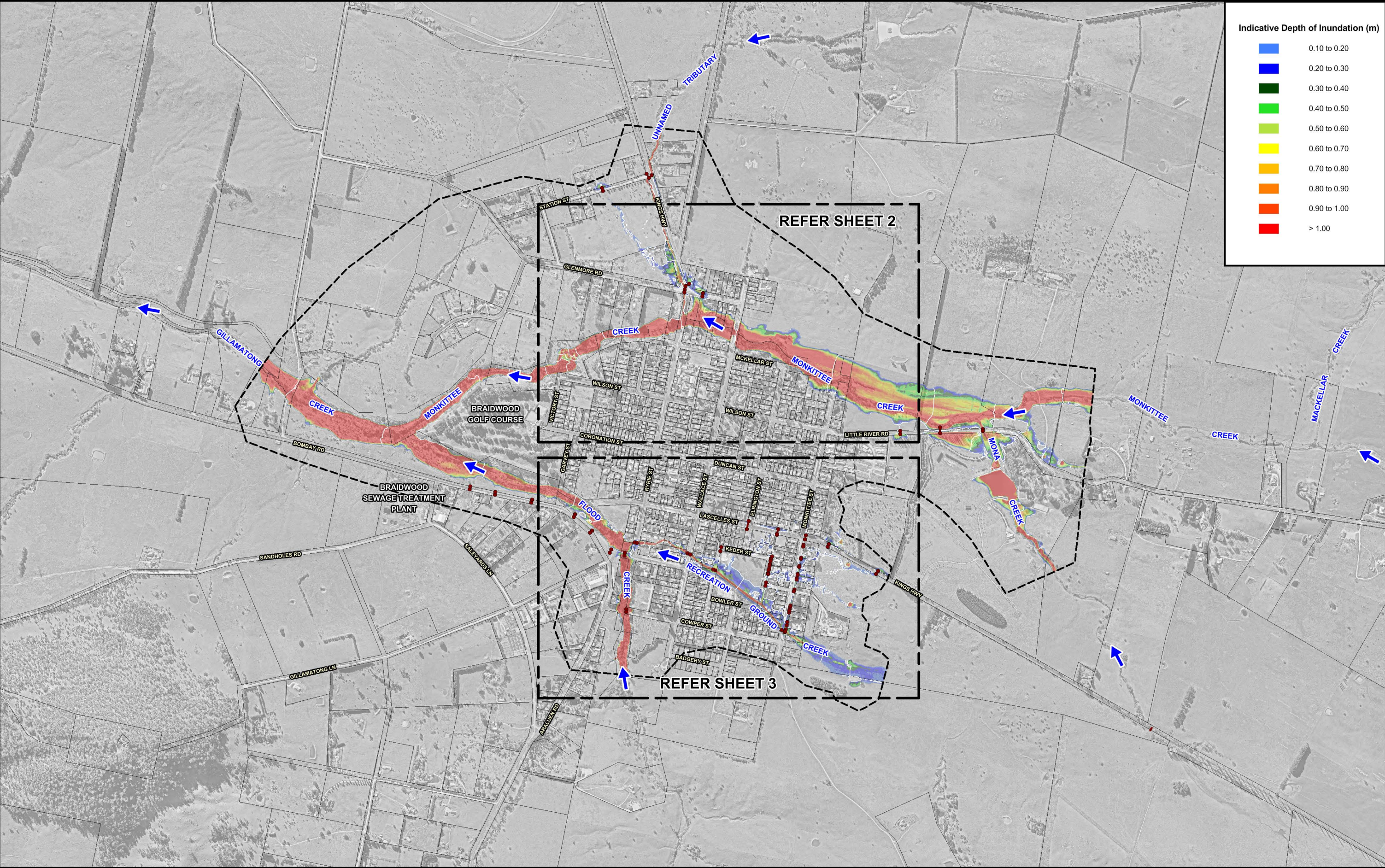
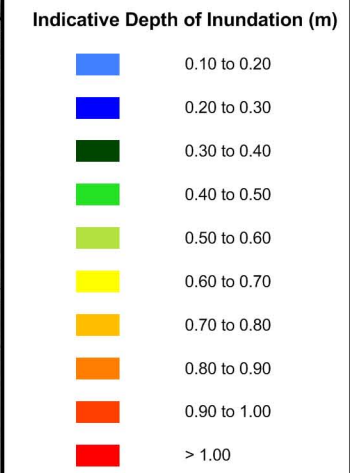
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.

LEGEND

- Modelled Stormwater Drainage System
- Two-Dimensional Model Boundary
- Water Surface Elevation Contours (m AHD)

**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

Figure B3.3
(Sheet 3 of 3)
TUFLOW MODEL RESULTS
20% AEP

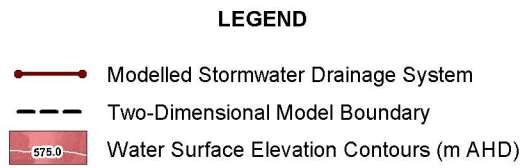


Lyall & Associates

NOTE:

The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.

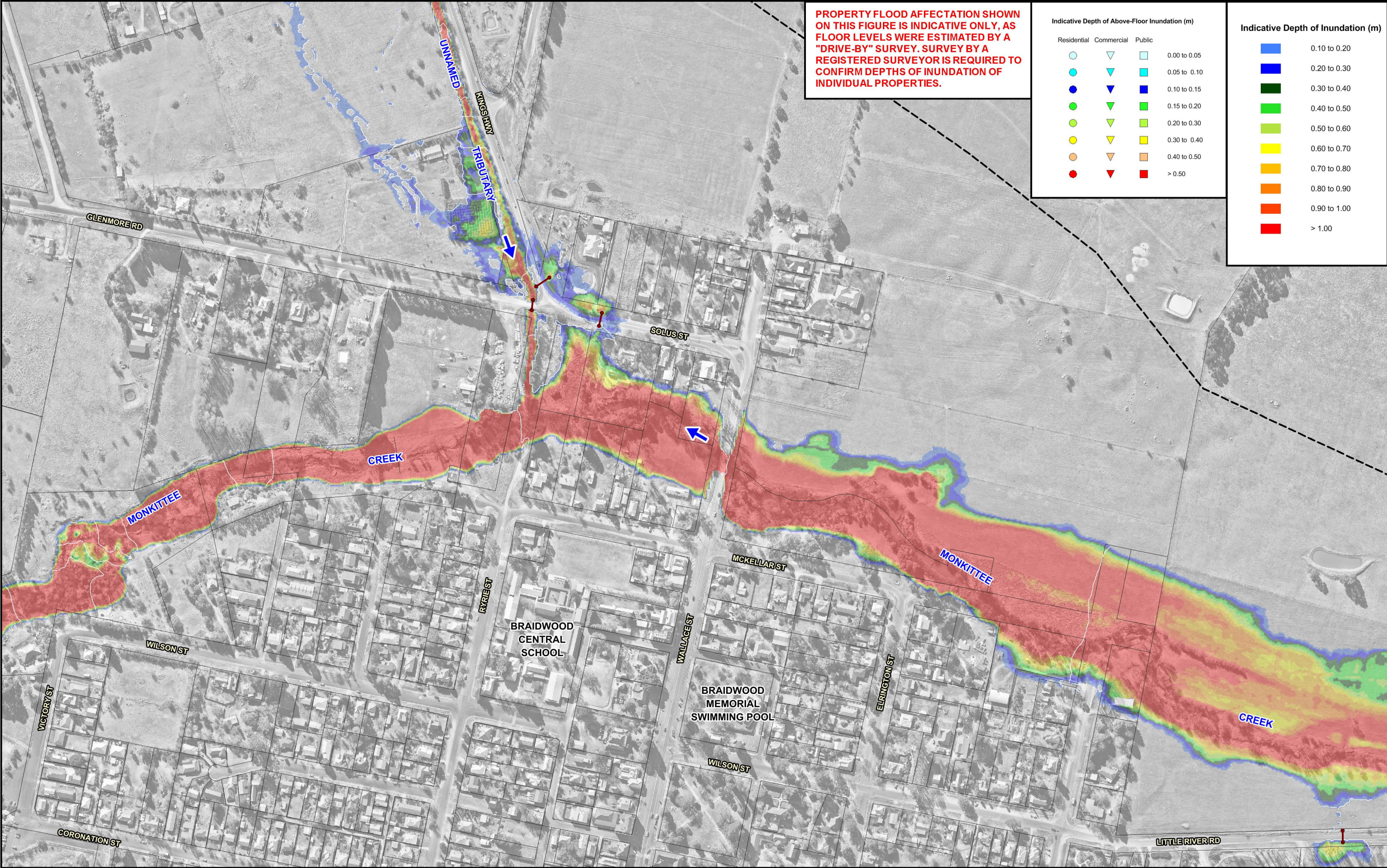
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.



BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN

Figure B3.4
(Sheet 1 of 3)

TUFLOW MODEL RESULTS
5% AEP



PROPERTY FLOOD AFFECTATION SHOWN ON THIS FIGURE IS INDICATIVE ONLY, AS FLOOR LEVELS WERE ESTIMATED BY A "DRIVE-BY" SURVEY. SURVEY BY A REGISTERED SURVEYOR IS REQUIRED TO CONFIRM DEPTHS OF INUNDATION OF INDIVIDUAL PROPERTIES.

Indicative Depth of Above-Floor Inundation (m)				Indicative Depth of Inundation (m)	
Residential	Commercial	Public			
			0.00 to 0.05		0.10 to 0.20
			0.05 to 0.10		0.20 to 0.30
			0.10 to 0.15		0.30 to 0.40
			0.15 to 0.20		0.40 to 0.50
			0.20 to 0.30		0.50 to 0.60
			0.30 to 0.40		0.60 to 0.70
			0.40 to 0.50		0.70 to 0.80
			> 0.50		0.80 to 0.90
					0.90 to 1.00
					> 1.00

400000120m

Scale: 1:4,000

NOTE:

The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.

Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.

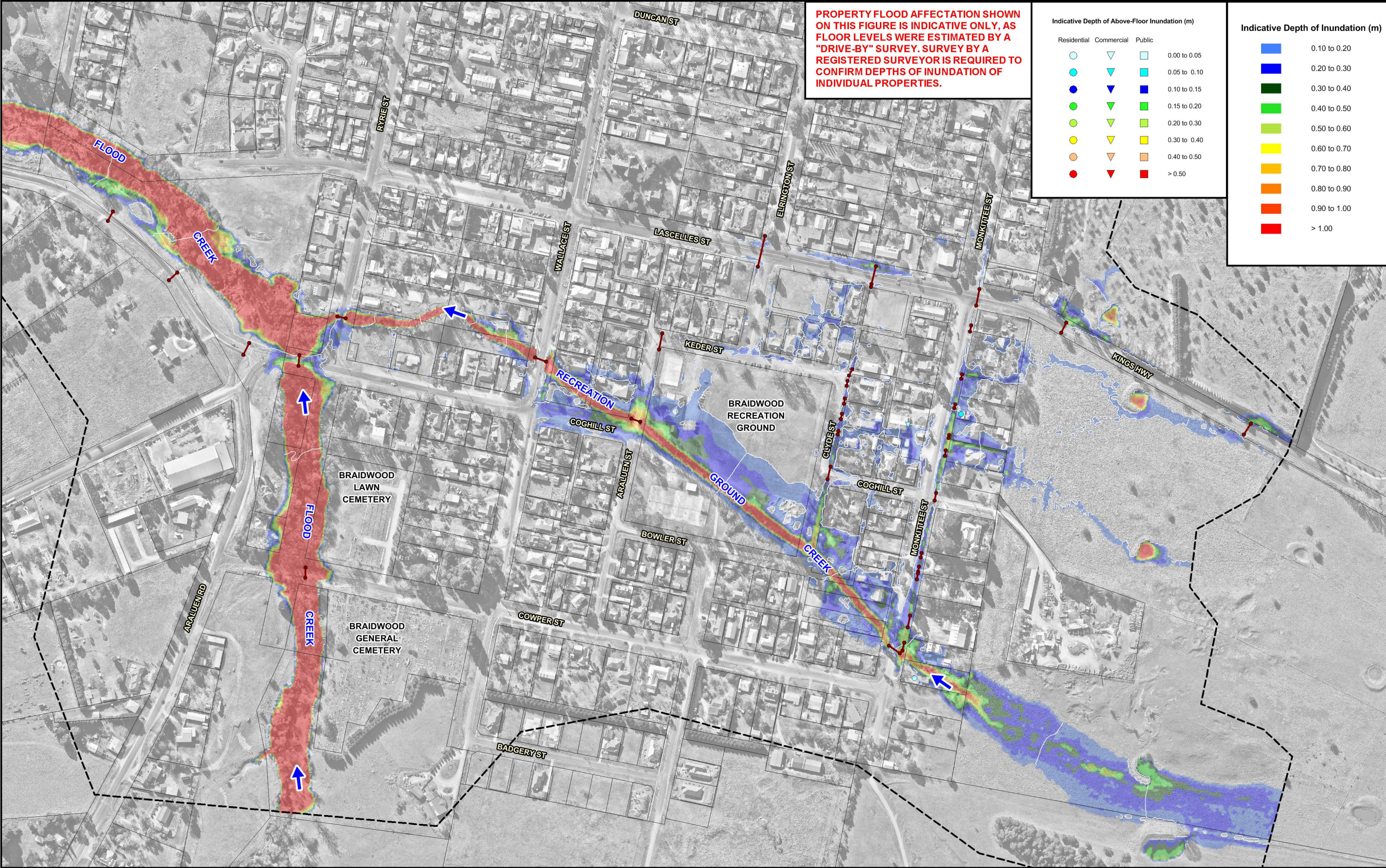
LEGEND

- Modelled Stormwater Drainage System
- Two-Dimensional Model Boundary
- Water Surface Elevation Contours (m AHD)

BRAIDWOOD FLOODPLAIN RISK MANAGEMENT STUDY AND PLAN

Figure B3.4
(Sheet 2 of 3)

TUFLOW MODEL RESULTS
5% AEP



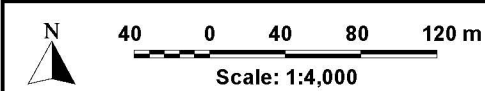
PROPERTY FLOOD AFFECTATION SHOWN ON THIS FIGURE IS INDICATIVE ONLY, AS FLOOR LEVELS WERE ESTIMATED BY A "DRIVE-BY" SURVEY. SURVEY BY A REGISTERED SURVEYOR IS REQUIRED TO CONFIRM DEPTHS OF INUNDATION OF INDIVIDUAL PROPERTIES.

Indicative Depth of Above-Floor Inundation (m)

Residential	Commercial	Public	
			0.00 to 0.05
			0.05 to 0.10
			0.10 to 0.15
			0.15 to 0.20
			0.20 to 0.30
			0.30 to 0.40
			0.40 to 0.50
			> 0.50

Indicative Depth of Inundation (m)

	0.10 to 0.20
	0.20 to 0.30
	0.30 to 0.40
	0.40 to 0.50
	0.50 to 0.60
	0.60 to 0.70
	0.70 to 0.80
	0.80 to 0.90
	0.90 to 1.00
	> 1.00



NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.

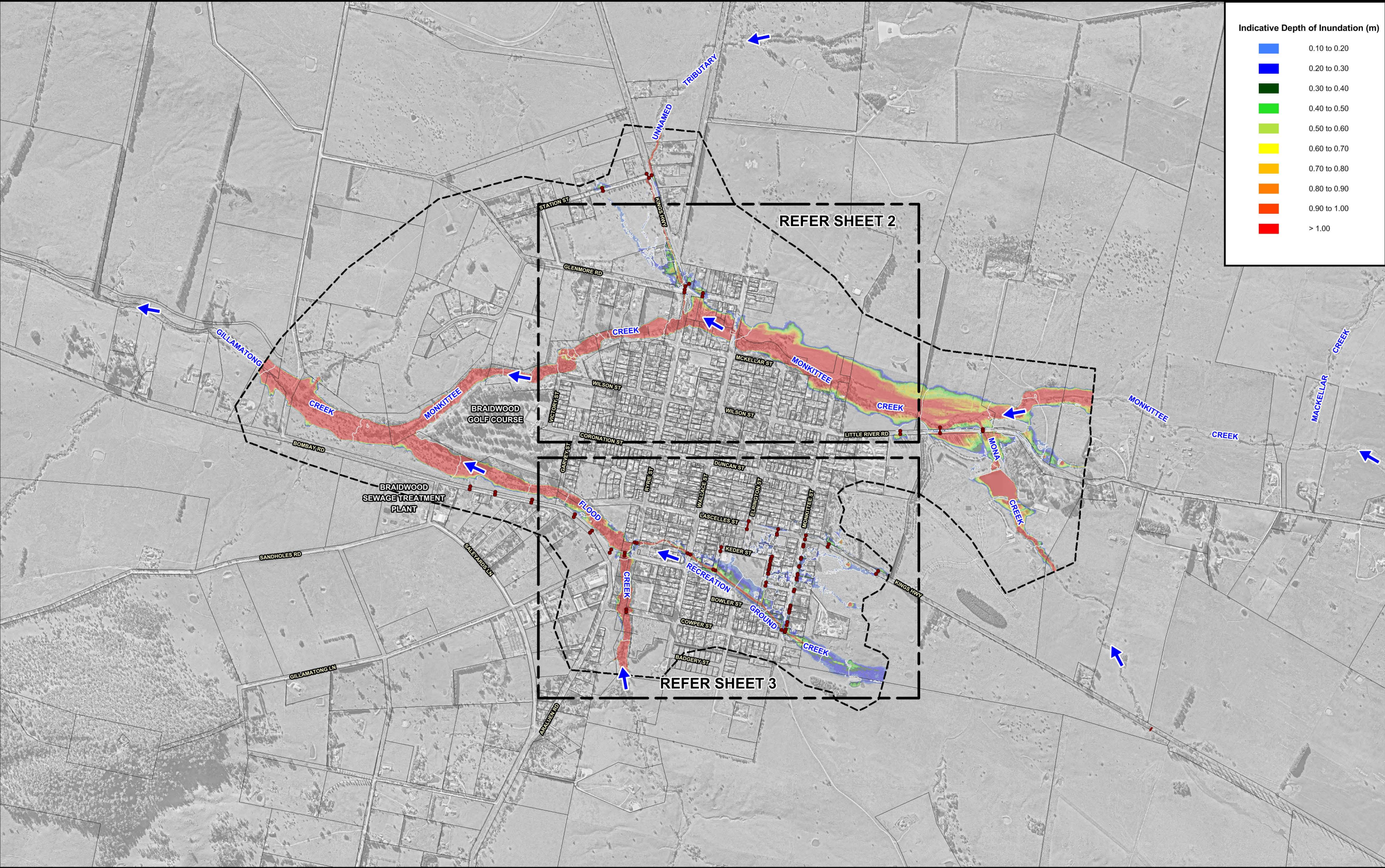
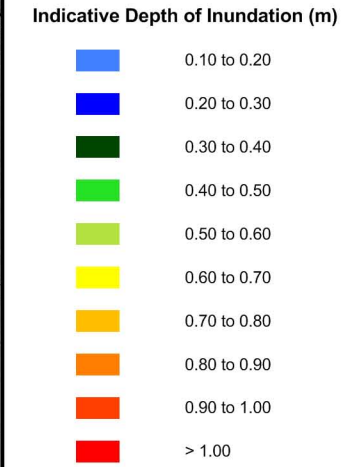
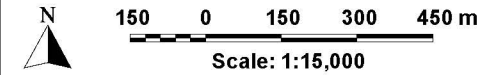
Lyll & Associates

LEGEND

- Modelled Stormwater Drainage System
- Two-Dimensional Model Boundary
- Water Surface Elevation Contours (m AHD)

**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

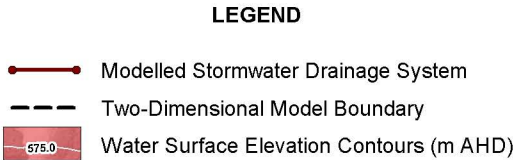
Figure B3.4
(Sheet 3 of 3)
TUFLOW MODEL RESULTS
5% AEP



Lyall & Associates

NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.

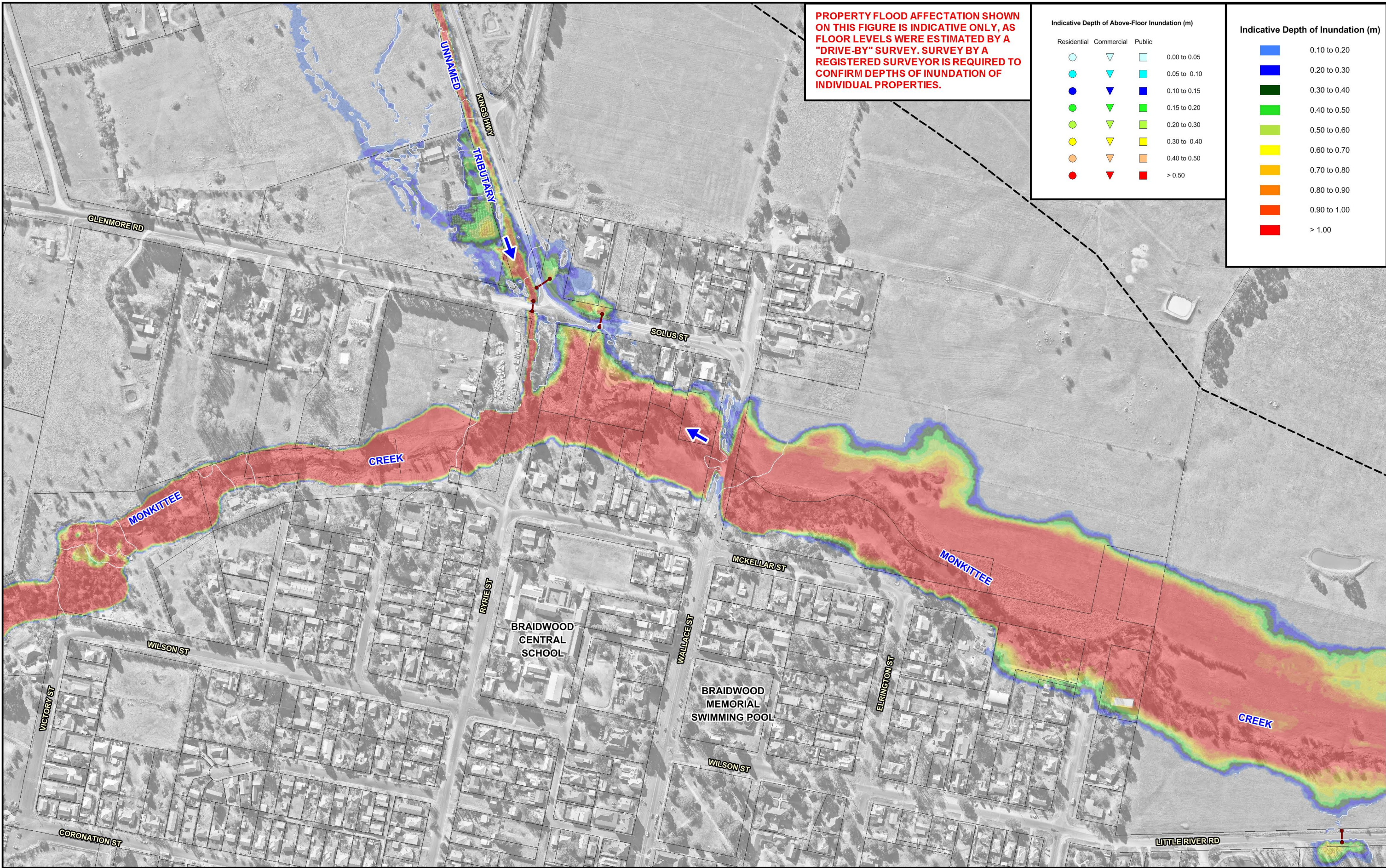
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.



**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

Figure B3.5
(Sheet 1 of 3)

TUFLOW MODEL RESULTS
2% AEP



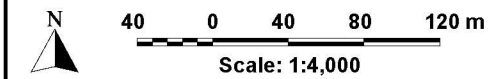
PROPERTY FLOOD AFFECTATION SHOWN ON THIS FIGURE IS INDICATIVE ONLY, AS FLOOR LEVELS WERE ESTIMATED BY A "DRIVE-BY" SURVEY. SURVEY BY A REGISTERED SURVEYOR IS REQUIRED TO CONFIRM DEPTHS OF INUNDATION OF INDIVIDUAL PROPERTIES.

Indicative Depth of Above-Floor Inundation (m)

Residential	Commercial	Public	
			0.00 to 0.05
			0.05 to 0.10
			0.10 to 0.15
			0.15 to 0.20
			0.20 to 0.30
			0.30 to 0.40
			0.40 to 0.50
			> 0.50

Indicative Depth of Inundation (m)

	0.10 to 0.20
	0.20 to 0.30
	0.30 to 0.40
	0.40 to 0.50
	0.50 to 0.60
	0.60 to 0.70
	0.70 to 0.80
	0.80 to 0.90
	0.90 to 1.00
	> 1.00



Lyll & Associates

NOTE:

The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.

Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.

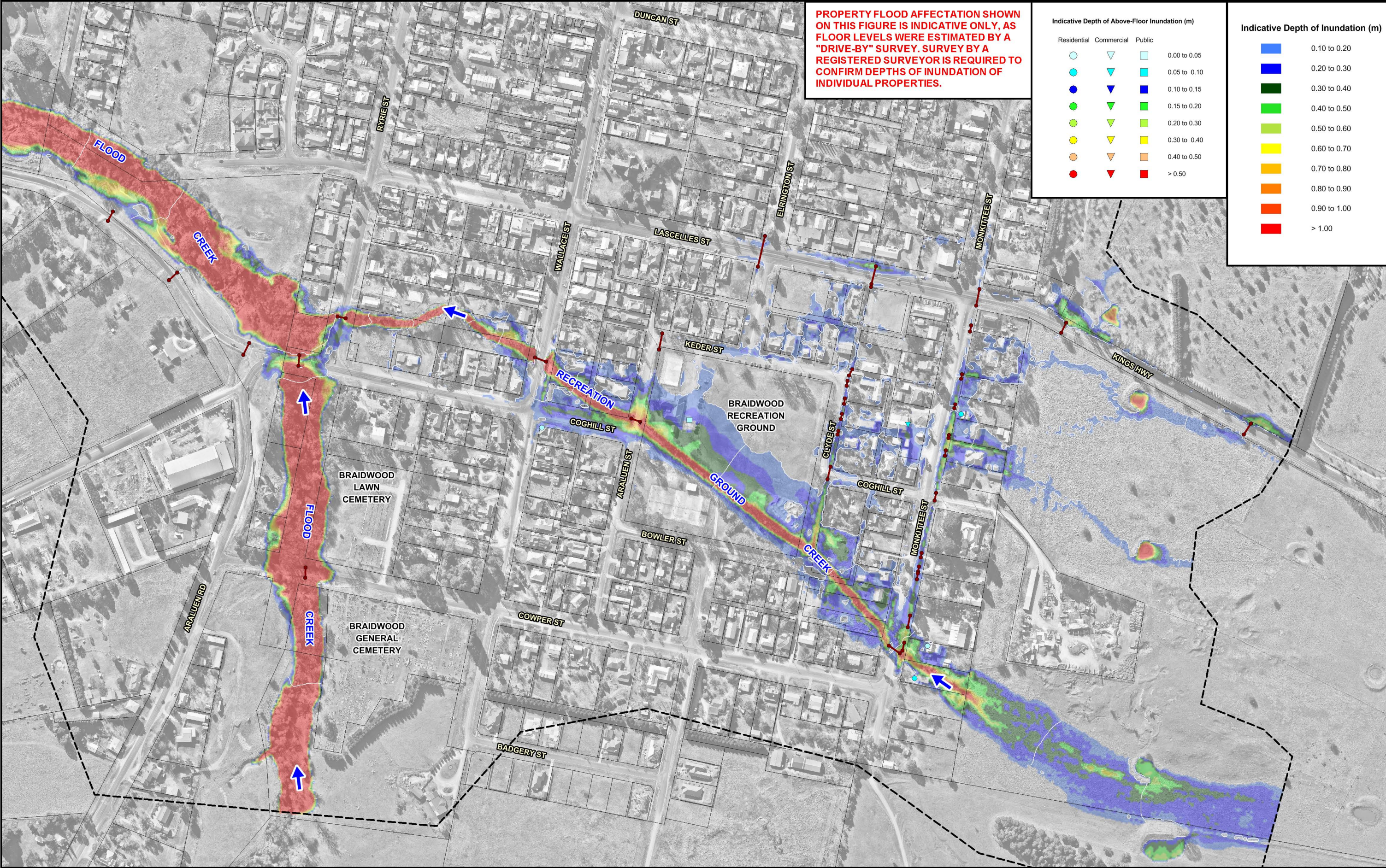
LEGEND

- Modelled Stormwater Drainage System
- Two-Dimensional Model Boundary
- Water Surface Elevation Contours (m AHD)

**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

Figure B3.5
(Sheet 2 of 3)

TUFLOW MODEL RESULTS
2% AEP



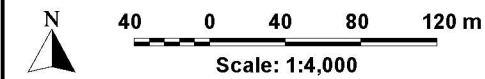
PROPERTY FLOOD AFFECTATION SHOWN ON THIS FIGURE IS INDICATIVE ONLY, AS FLOOR LEVELS WERE ESTIMATED BY A "DRIVE-BY" SURVEY. SURVEY BY A REGISTERED SURVEYOR IS REQUIRED TO CONFIRM DEPTHS OF INUNDATION OF INDIVIDUAL PROPERTIES.

Indicative Depth of Above-Floor Inundation (m)

Residential	Commercial	Public	
			0.00 to 0.05
			0.05 to 0.10
			0.10 to 0.15
			0.15 to 0.20
			0.20 to 0.30
			0.30 to 0.40
			0.40 to 0.50
			> 0.50

Indicative Depth of Inundation (m)

	0.10 to 0.20
	0.20 to 0.30
	0.30 to 0.40
	0.40 to 0.50
	0.50 to 0.60
	0.60 to 0.70
	0.70 to 0.80
	0.80 to 0.90
	0.90 to 1.00
	> 1.00



Lyall & Associates

NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.

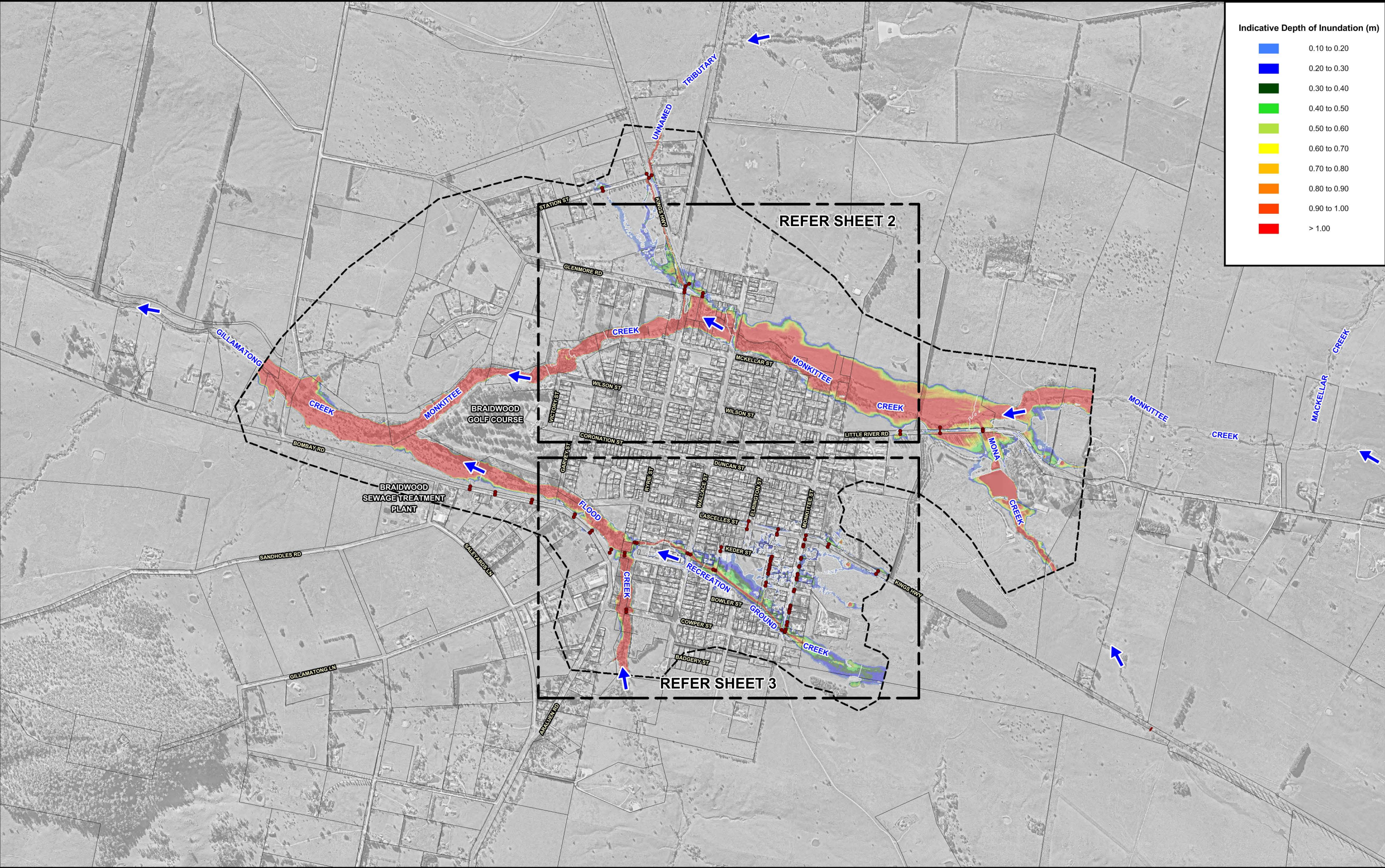
LEGEND

- Modelled Stormwater Drainage System
- Two-Dimensional Model Boundary
- Water Surface Elevation Contours (m AHD)

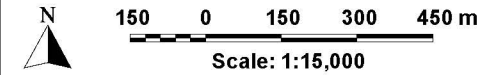
BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN

Figure B3.5
(Sheet 3 of 3)

TUFLOW MODEL RESULTS
2% AEP



Indicative Depth of Inundation (m)	
■	0.10 to 0.20
■	0.20 to 0.30
■	0.30 to 0.40
■	0.40 to 0.50
■	0.50 to 0.60
■	0.60 to 0.70
■	0.70 to 0.80
■	0.80 to 0.90
■	0.90 to 1.00
■	> 1.00



Lyall & Associates

NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.

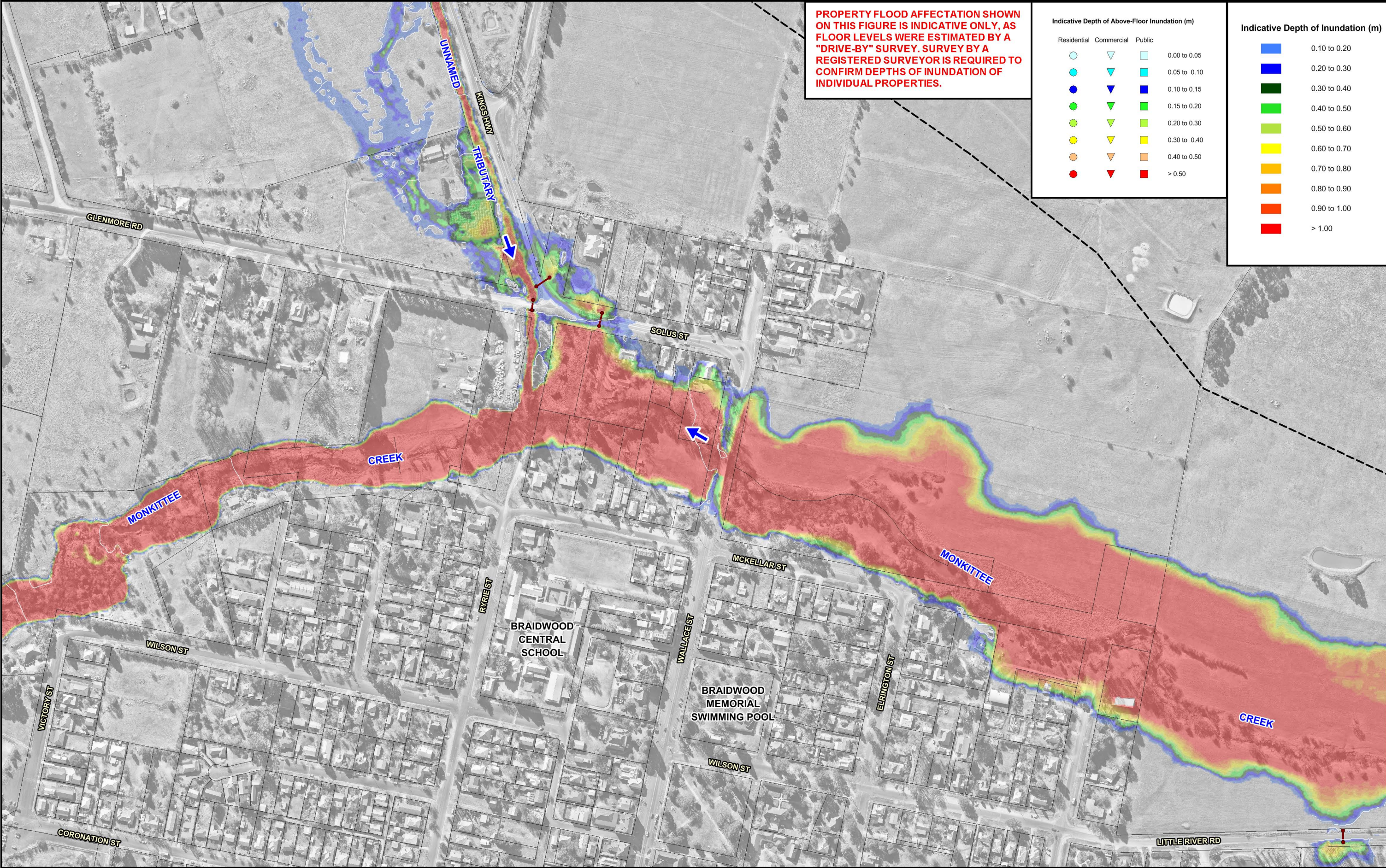
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.

LEGEND

- Modelled Stormwater Drainage System
- Two-Dimensional Model Boundary
- 575.0 Water Surface Elevation Contours (m AHD)

**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

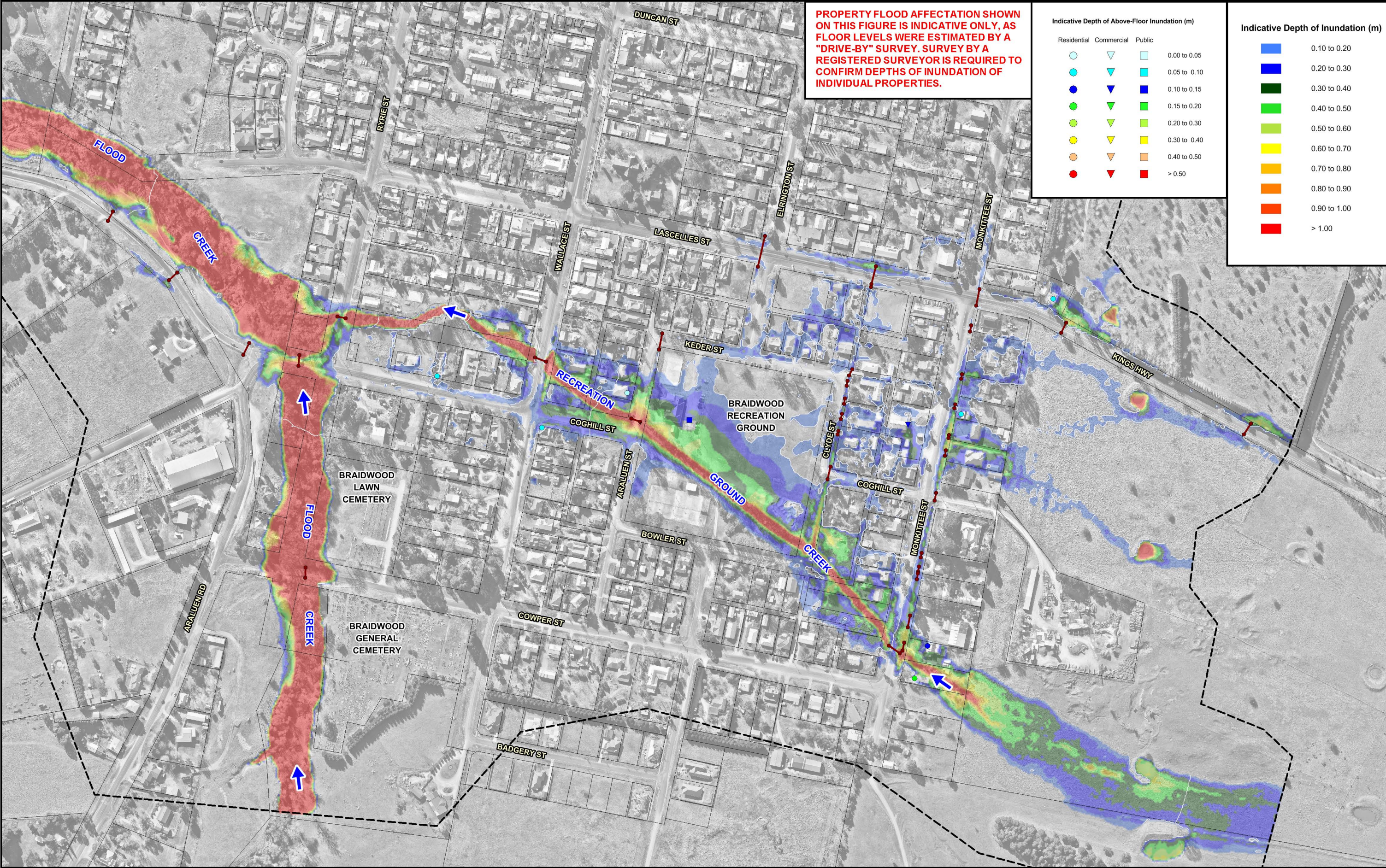
Figure B3.6
(Sheet 1 of 3)
TUFLOW MODEL RESULTS
0.5% AEP



PROPERTY FLOOD AFFECTATION SHOWN ON THIS FIGURE IS INDICATIVE ONLY, AS FLOOR LEVELS WERE ESTIMATED BY A "DRIVE-BY" SURVEY. SURVEY BY A REGISTERED SURVEYOR IS REQUIRED TO CONFIRM DEPTHS OF INUNDATION OF INDIVIDUAL PROPERTIES.

Indicative Depth of Above-Floor Inundation (m)			
Residential	Commercial	Public	
			0.00 to 0.05
			0.05 to 0.10
			0.10 to 0.15
			0.15 to 0.20
			0.20 to 0.30
			0.30 to 0.40
			0.40 to 0.50
			> 0.50

Indicative Depth of Inundation (m)	
	0.10 to 0.20
	0.20 to 0.30
	0.30 to 0.40
	0.40 to 0.50
	0.50 to 0.60
	0.60 to 0.70
	0.70 to 0.80
	0.80 to 0.90
	0.90 to 1.00
	> 1.00



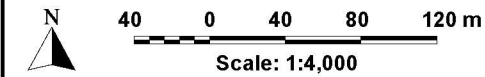
PROPERTY FLOOD AFFECTATION SHOWN ON THIS FIGURE IS INDICATIVE ONLY, AS FLOOR LEVELS WERE ESTIMATED BY A "DRIVE-BY" SURVEY. SURVEY BY A REGISTERED SURVEYOR IS REQUIRED TO CONFIRM DEPTHS OF INUNDATION OF INDIVIDUAL PROPERTIES.

Indicative Depth of Above-Floor Inundation (m)

Residential	Commercial	Public	
			0.00 to 0.05
			0.05 to 0.10
			0.10 to 0.15
			0.15 to 0.20
			0.20 to 0.30
			0.30 to 0.40
			0.40 to 0.50
			> 0.50

Indicative Depth of Inundation (m)

	0.10 to 0.20
	0.20 to 0.30
	0.30 to 0.40
	0.40 to 0.50
	0.50 to 0.60
	0.60 to 0.70
	0.70 to 0.80
	0.80 to 0.90
	0.90 to 1.00
	> 1.00



Lyall & Associates

NOTE:

The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.

Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.

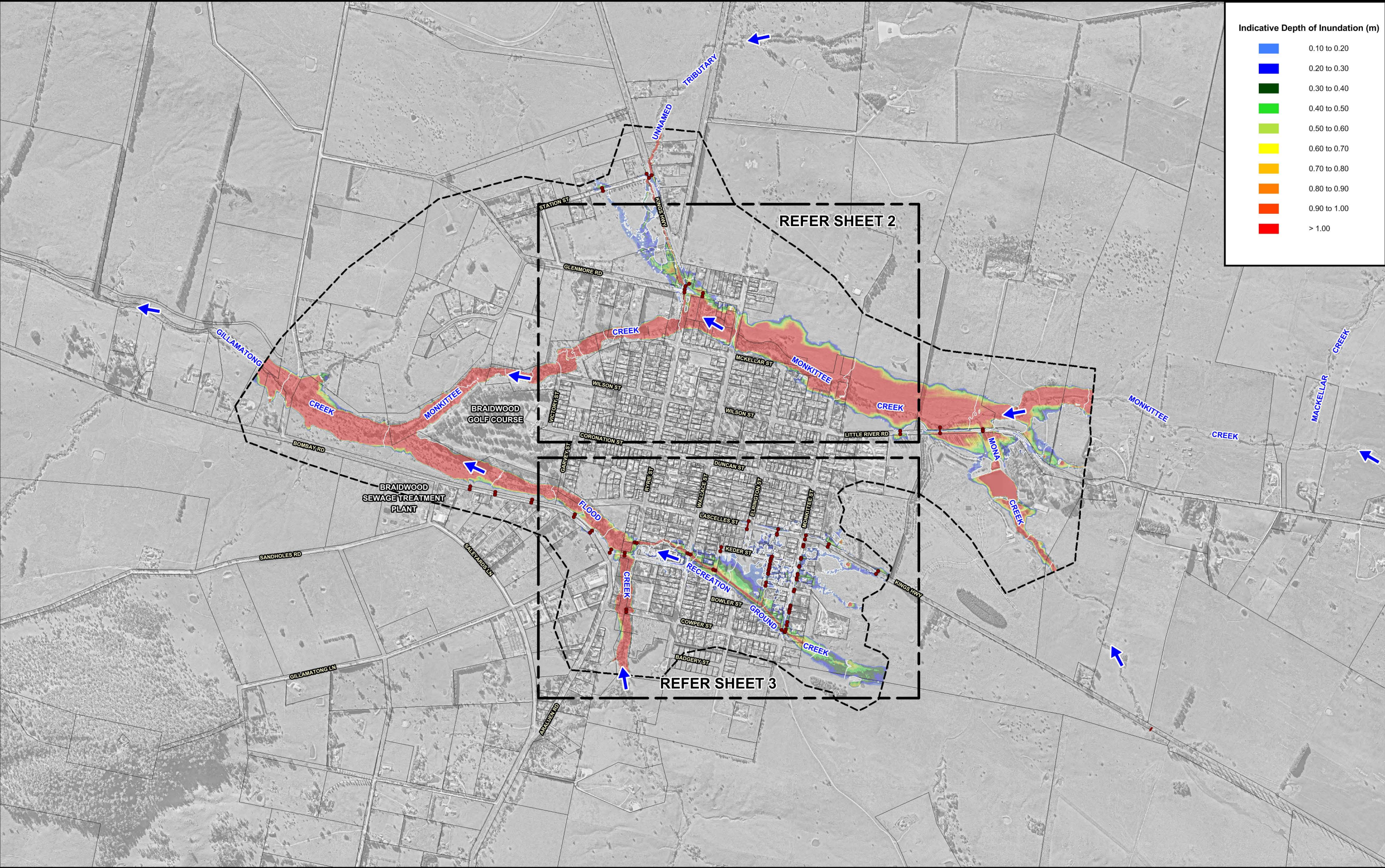
LEGEND

- Modelled Stormwater Drainage System
- Two-Dimensional Model Boundary
- Water Surface Elevation Contours (m AHD)

**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

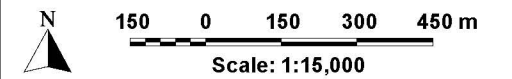
Figure B3.6
(Sheet 3 of 3)

TUFLOW MODEL RESULTS
0.5% AEP



Indicative Depth of Inundation (m)

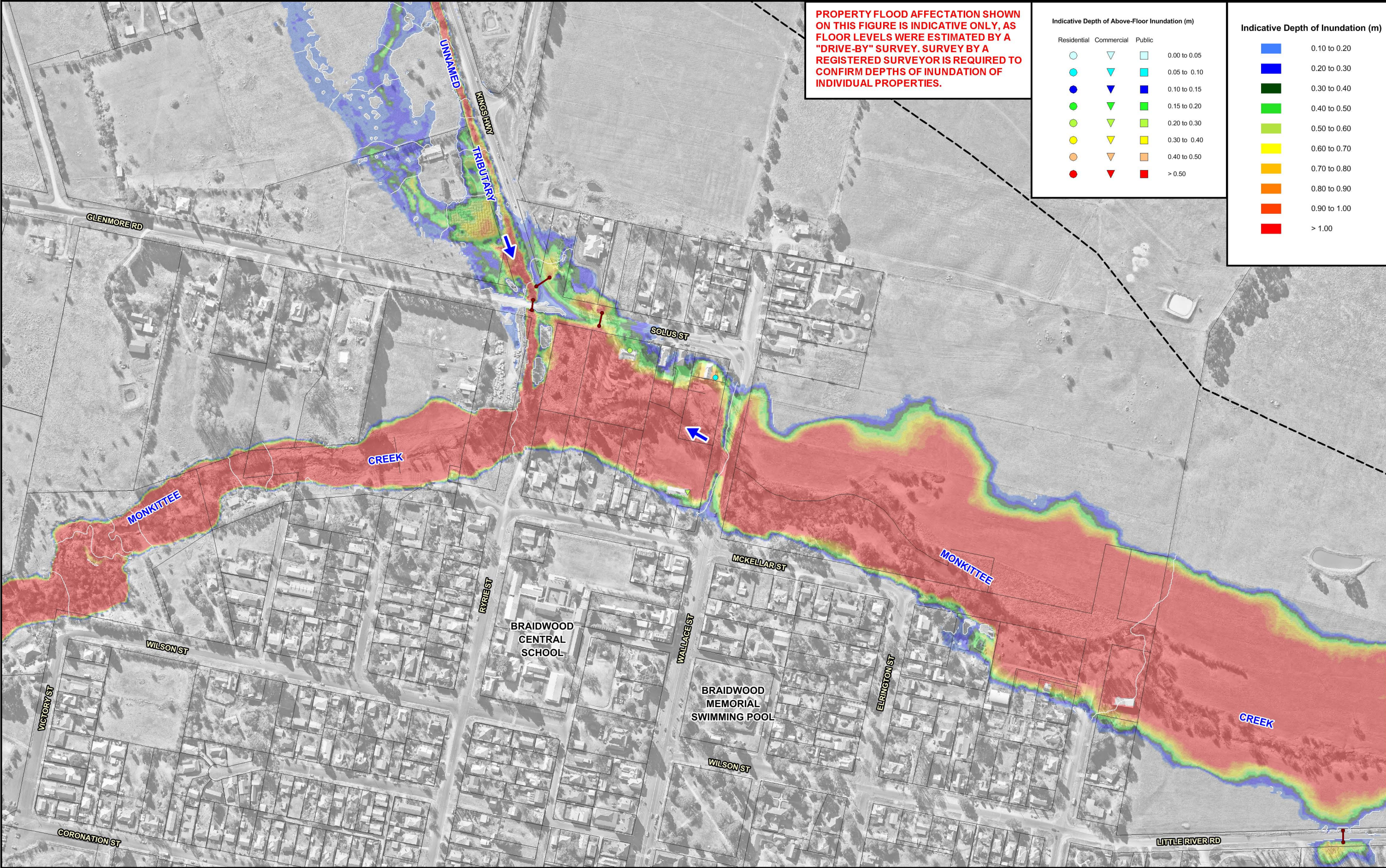
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00



NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.

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- LEGEND**
- Modelled Stormwater Drainage System
 - Two-Dimensional Model Boundary
 - Water Surface Elevation Contours (m AHD)



PROPERTY FLOOD AFFECTATION SHOWN ON THIS FIGURE IS INDICATIVE ONLY, AS FLOOR LEVELS WERE ESTIMATED BY A "DRIVE-BY" SURVEY. SURVEY BY A REGISTERED SURVEYOR IS REQUIRED TO CONFIRM DEPTHS OF INUNDATION OF INDIVIDUAL PROPERTIES.

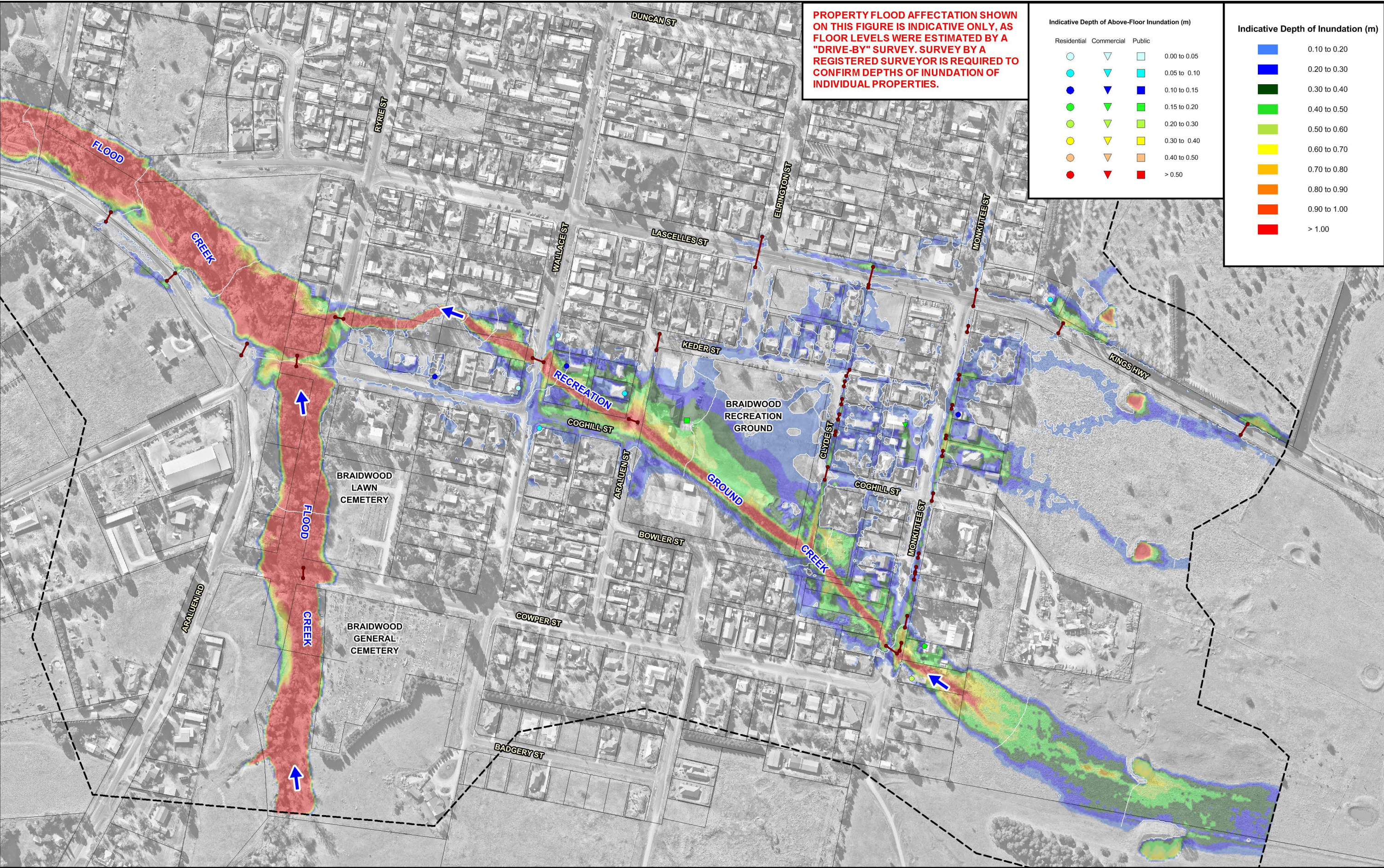
Indicative Depth of Above-Floor Inundation (m)			
Residential	Commercial	Public	
			0.00 to 0.05
			0.05 to 0.10
			0.10 to 0.15
			0.15 to 0.20
			0.20 to 0.30
			0.30 to 0.40
			0.40 to 0.50
			> 0.50

Indicative Depth of Inundation (m)	
	0.10 to 0.20
	0.20 to 0.30
	0.30 to 0.40
	0.40 to 0.50
	0.50 to 0.60
	0.60 to 0.70
	0.70 to 0.80
	0.80 to 0.90
	0.90 to 1.00
	> 1.00

NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.

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- LEGEND**
- Modelled Stormwater Drainage System
 - Two-Dimensional Model Boundary
 - Water Surface Elevation Contours (m AHD)



PROPERTY FLOOD AFFECTATION SHOWN ON THIS FIGURE IS INDICATIVE ONLY, AS FLOOR LEVELS WERE ESTIMATED BY A "DRIVE-BY" SURVEY. SURVEY BY A REGISTERED SURVEYOR IS REQUIRED TO CONFIRM DEPTHS OF INUNDATION OF INDIVIDUAL PROPERTIES.

Indicative Depth of Above-Floor Inundation (m)

Residential	Commercial	Public	
			0.00 to 0.05
			0.05 to 0.10
			0.10 to 0.15
			0.15 to 0.20
			0.20 to 0.30
			0.30 to 0.40
			0.40 to 0.50
			> 0.50

Indicative Depth of Inundation (m)

	0.10 to 0.20
	0.20 to 0.30
	0.30 to 0.40
	0.40 to 0.50
	0.50 to 0.60
	0.60 to 0.70
	0.70 to 0.80
	0.80 to 0.90
	0.90 to 1.00
	> 1.00



Lyall & Associates

NOTE:

The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.

Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.

LEGEND

- Modelled Stormwater Drainage System
- Two-Dimensional Model Boundary
- Water Surface Elevation Contours (m AHD)

BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN

Figure B3.7
(Sheet 3 of 3)

TUFLOW MODEL RESULTS
0.2% AEP

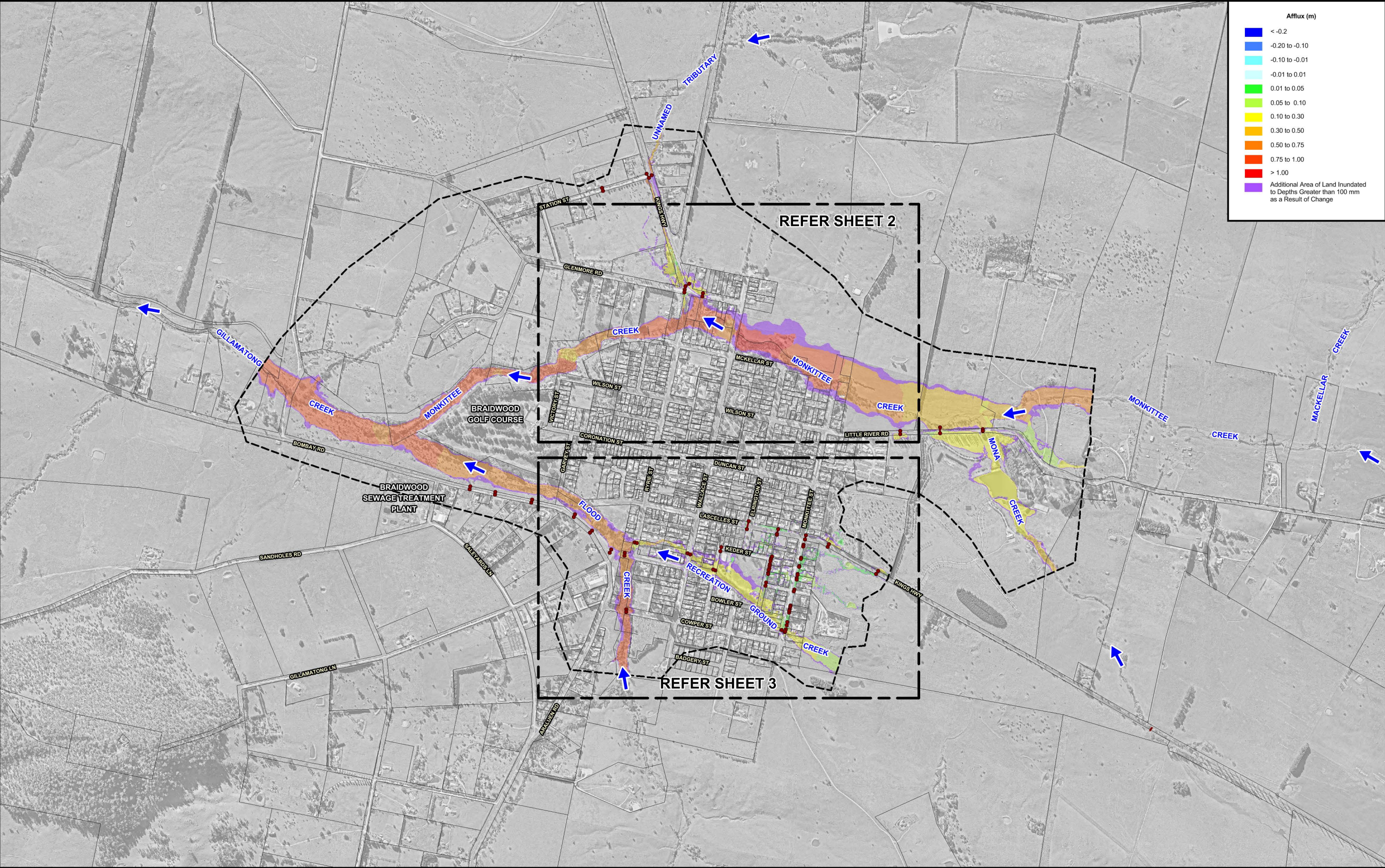
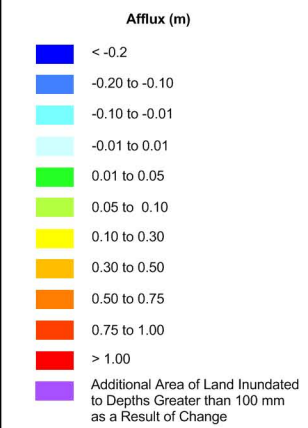
APPENDIX C

DIFFERENCES IN DESIGN FLOOD ESTIMATION FOR BRAIDWOOD ARR1987 VERSUS ARR2016

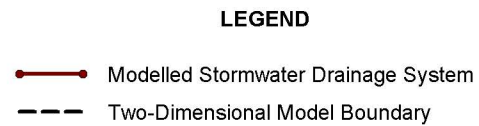
LIST OF FIGURES (APPENDIX C)

C2.1 Difference in Peak Flood Levels Derived using Procedures set out in ARR1987 and ARR2016 – 1% AEP

DRAFT REPORT FOR PUBLIC EXHIBITION



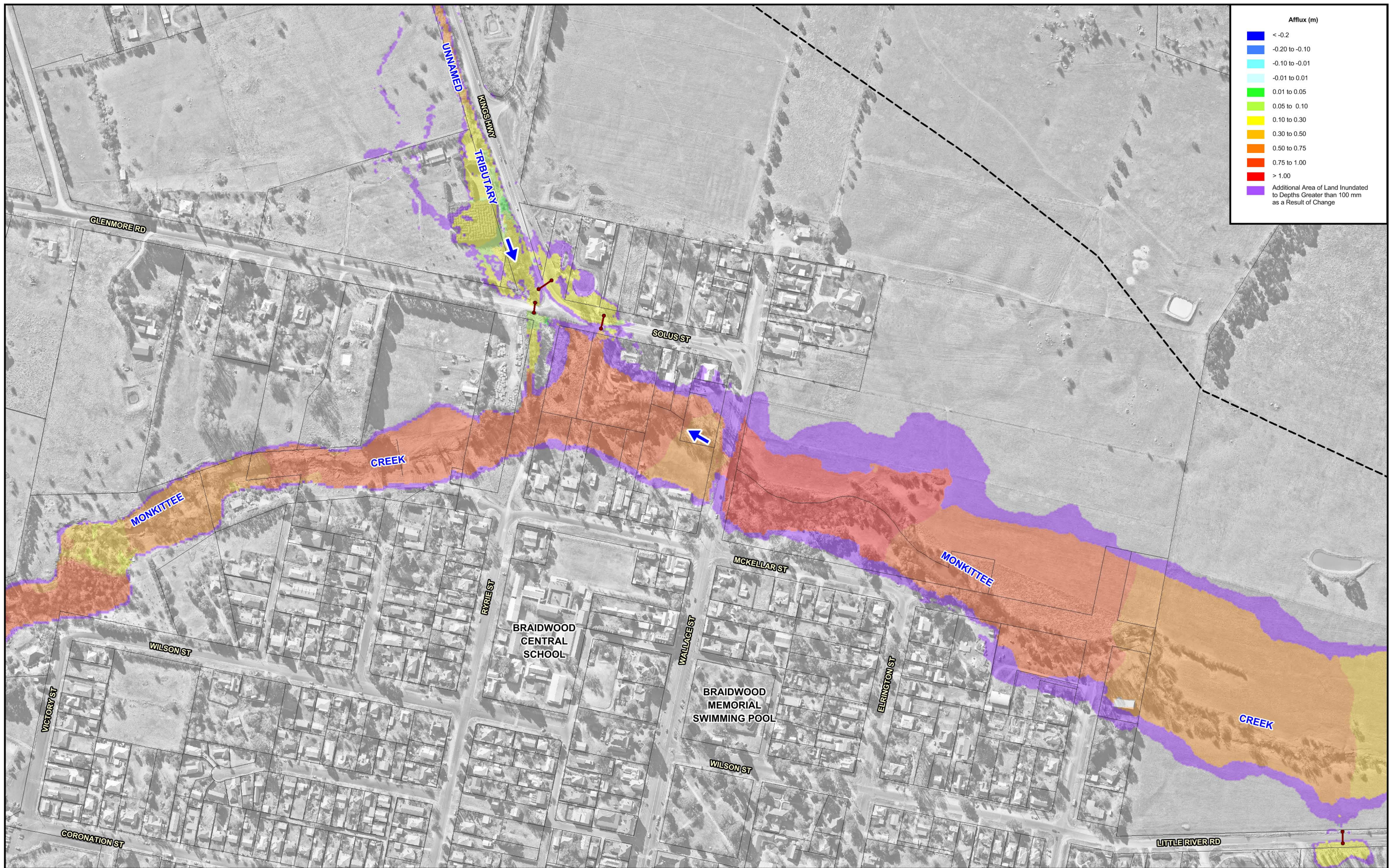
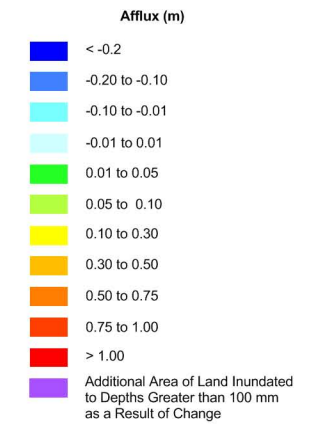
NOTE:
A positive afflux indicates that the modelled peak flood levels derived using the procedures set out in ARR1987 are higher than those derived using ARR2016.



BRAIDWOOD FLOODPLAIN RISK MANAGEMENT STUDY AND PLAN

Figure C2.1
(Sheet 1 of 3)

DIFFERENCE IN PEAK FLOOD LEVELS DERIVED USING PROCEDURES SET OUT IN
ARR1987 AND ARR2016 - 1% AEP



Scale: 1:4,000

40 0 40 80 120 m

Lyall & Associates

NOTE:

A positive afflux indicates that the modelled peak flood levels derived using the procedures set out in ARR1987 are higher than those derived using ARR2016.

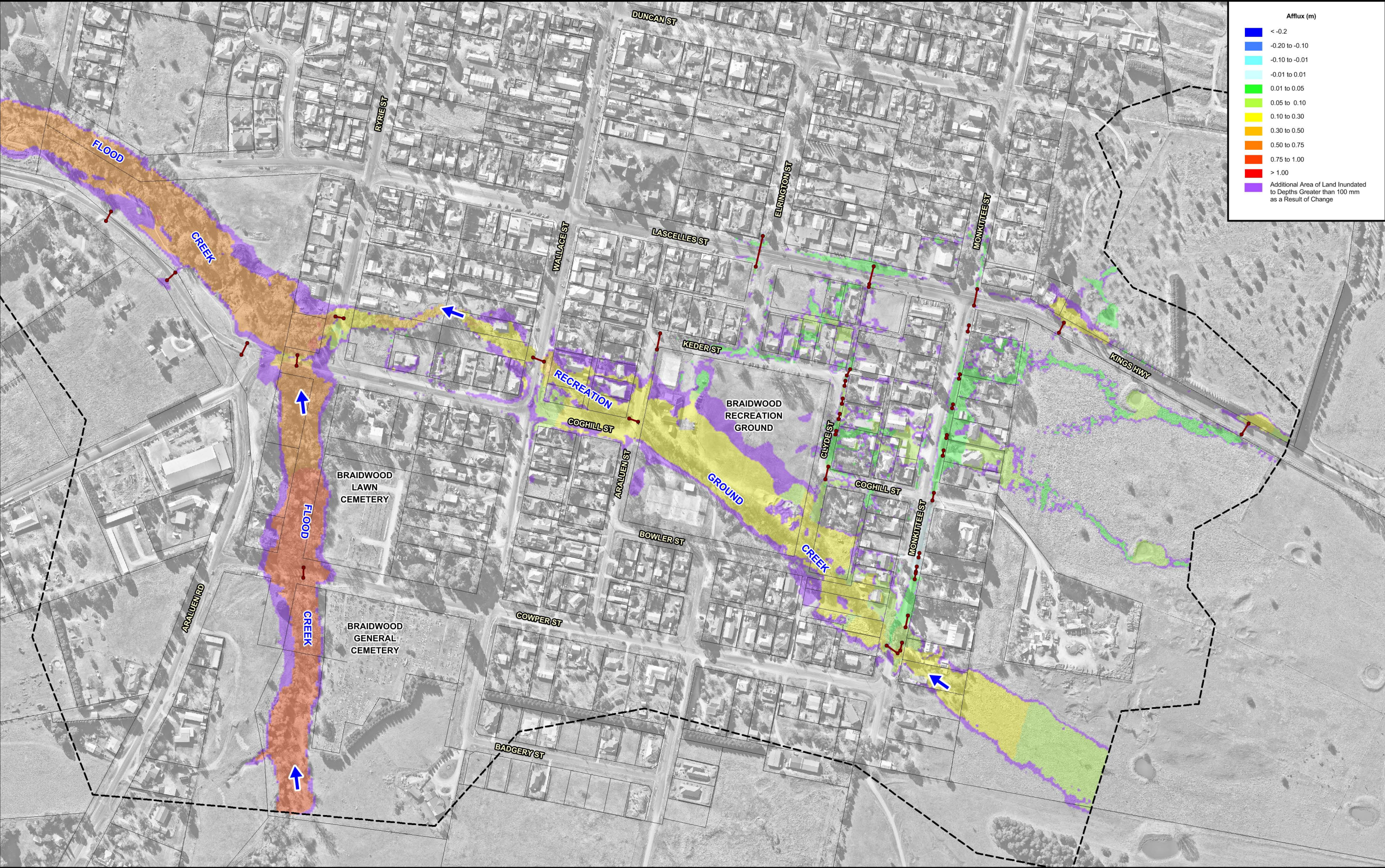
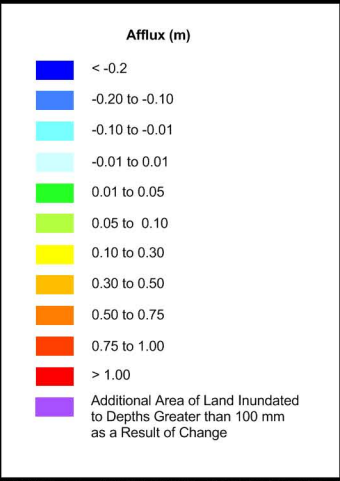
LEGEND

- Modelled Stormwater Drainage System
- Two-Dimensional Model Boundary

**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

Figure C2.1
(Sheet 2 of 3)

DIFFERENCE IN PEAK FLOOD LEVELS DERIVED USING PROCEDURES SET OUT IN
ARR1987 AND ARR2016 - 1% AEP



N

4000

04080120

m

Scale: 1:4,000

Lyall & Associates

NOTE:
A positive afflux indicates that the modelled peak flood levels derived using the procedures set out in ARR1987 are higher than those derived using ARR2016.

- LEGEND
- Modelled Stormwater Drainage System
 - Two-Dimensional Model Boundary

BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN

Figure C2.1
(Sheet 3 of 3)

DIFFERENCE IN PEAK FLOOD LEVELS DERIVED USING PROCEDURES SET OUT IN
ARR1987 AND ARR2016 - 1% AEP

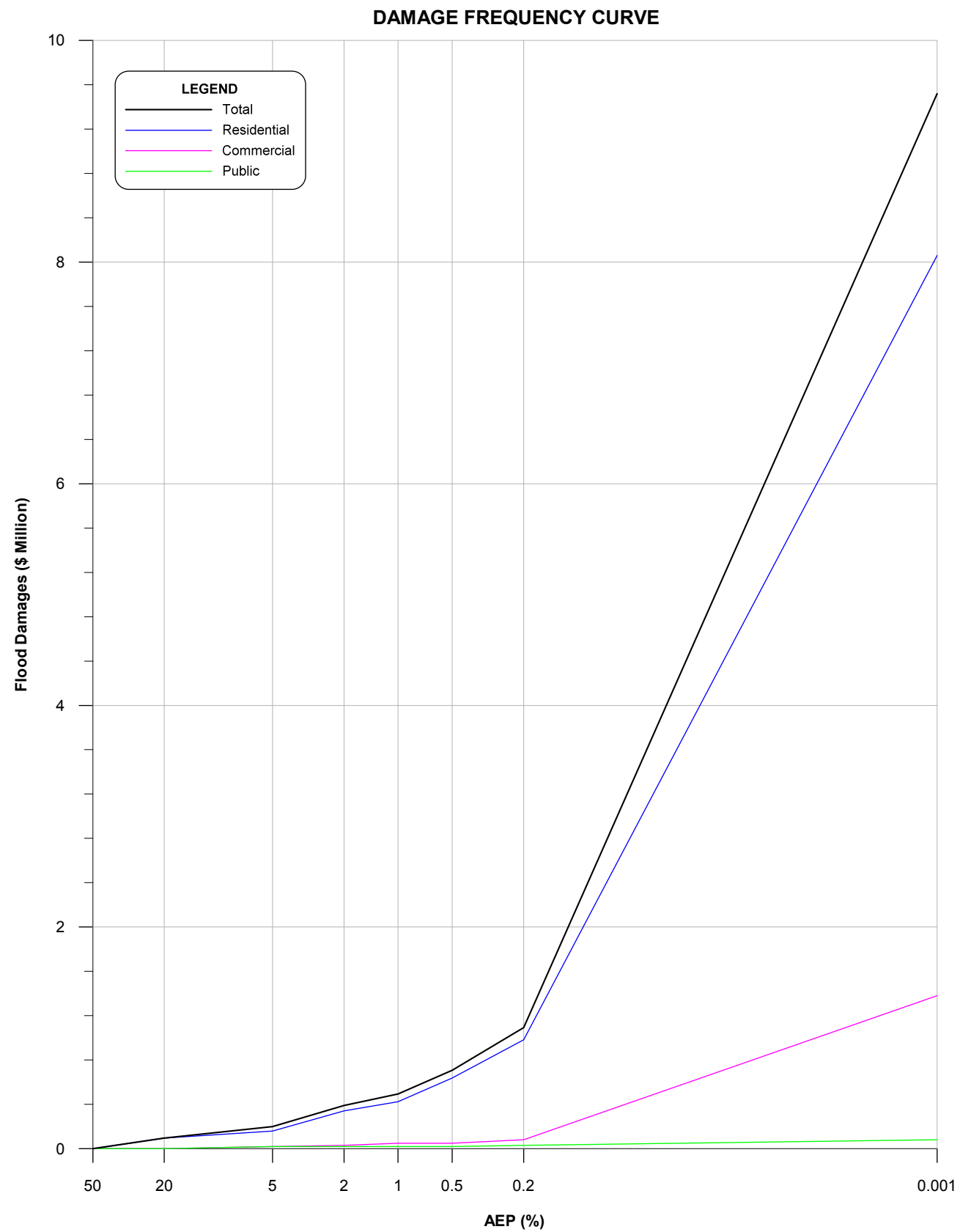
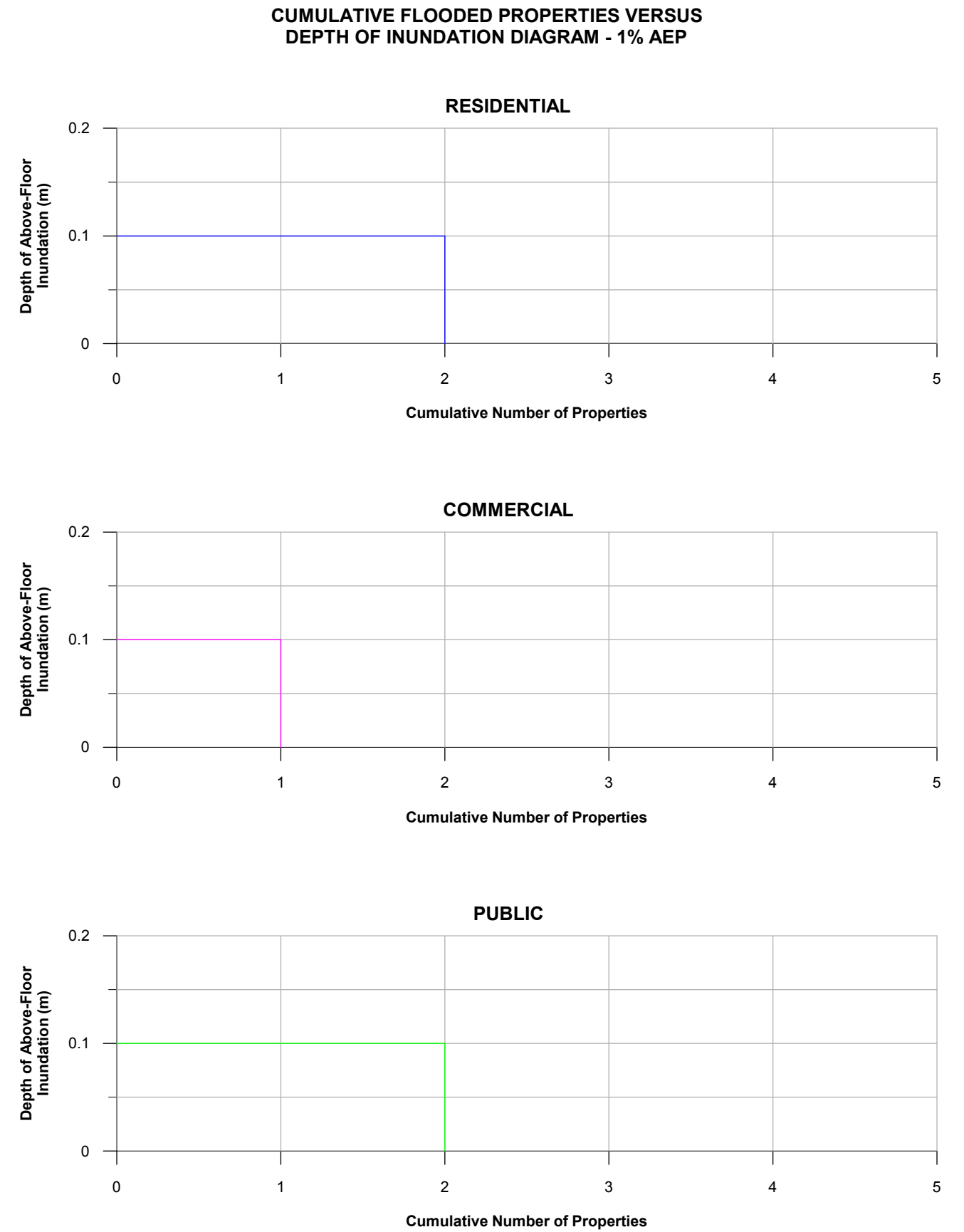
APPENDIX D

FLOOD DAMAGES

LIST OF FIGURES (APPENDIX D)

D8.1 Damage - Frequency Curves and Cumulative Flooded Properties versus Depth of Inundation Diagram (Nominal 1% AEP Design Flood Level Case)

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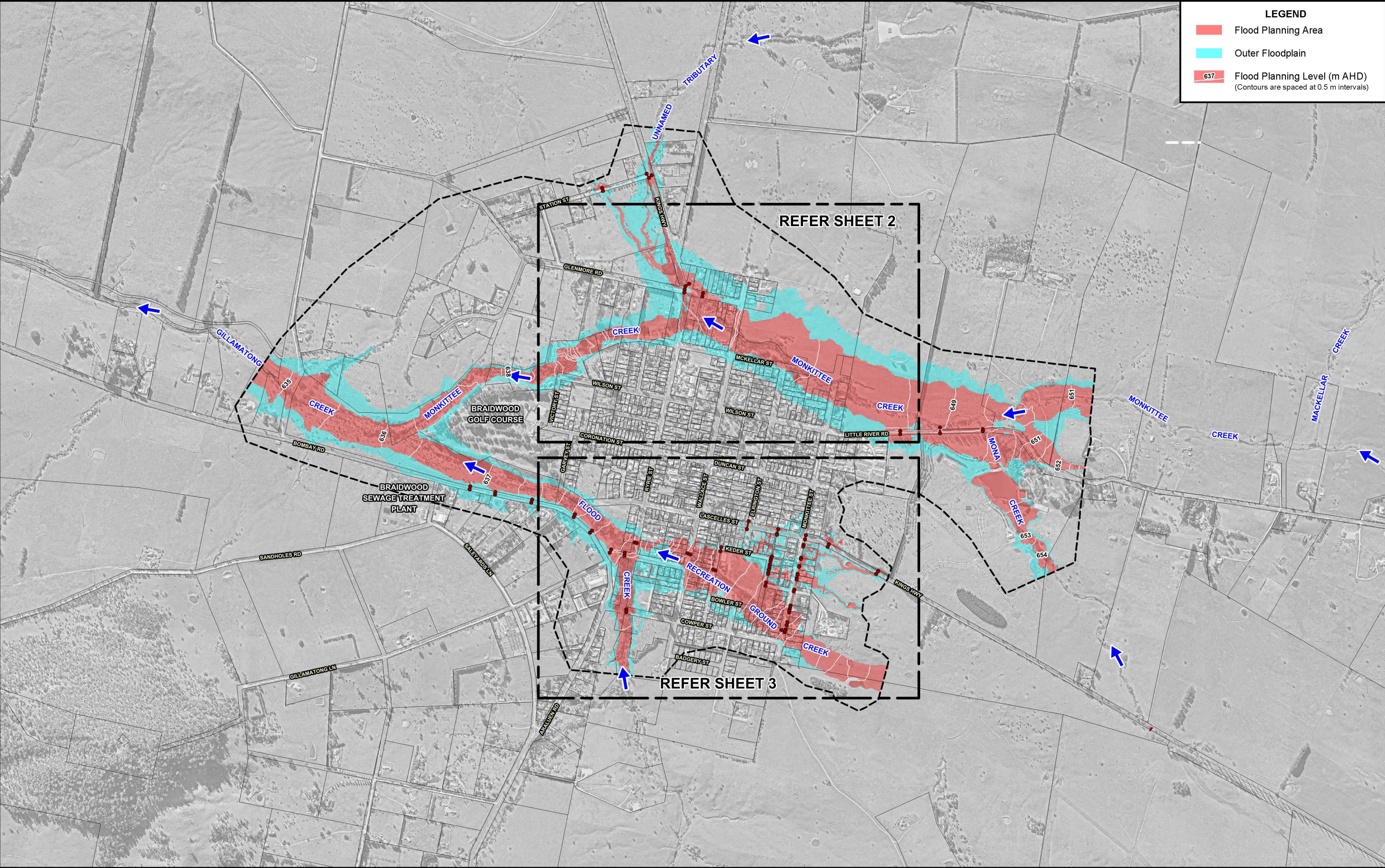
APPENDIX E

DRAFT FLOOD POLICY

LIST OF FIGURES (APPENDIX E)

- E1.1 Extract of Flood Planning Map at Braidwood
- E1.2 Braidwood Flood Hazard Map

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LEGEND

- Flood Planning Area
- Outer Floodplain
- 637 Flood Planning Level (m AHD)
(Contours are spaced at 0.5 m intervals)

N

150 0 150 300 450 m

Scale: 1:15,000

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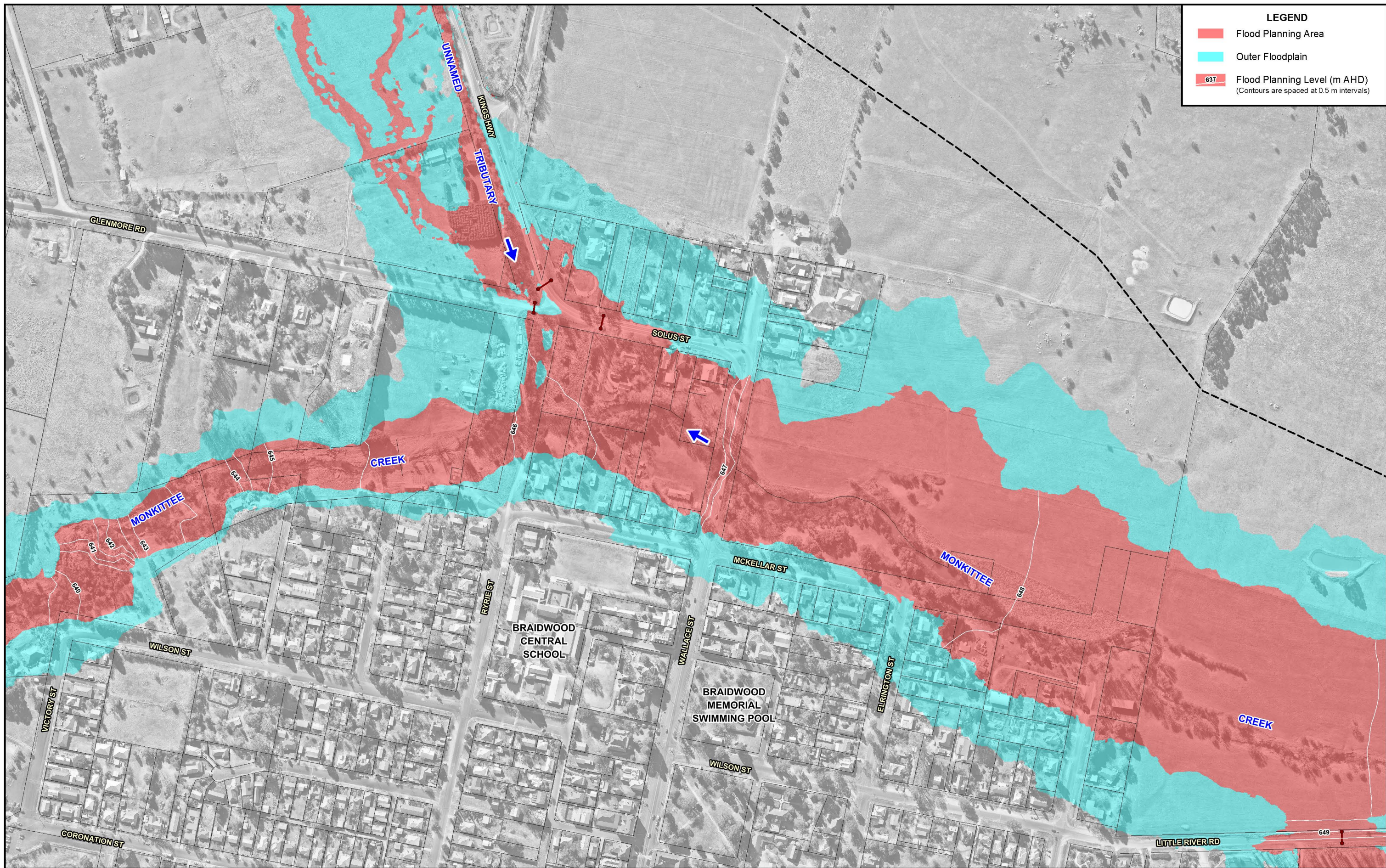
LEGEND

- Modelled Stormwater Drainage System
- Two-Dimensional Model Boundary

**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

Figure E1.1
(Sheet 1 of 3)

EXTRACT OF FLOOD PLANNING MAP AT BRAIDWOOD



LEGEND

- Flood Planning Area
- Outer Floodplain
- 637 Flood Planning Level (m AHD)
(Contours are spaced at 0.5 m intervals)

N

40 0 40 80 120 m

Scale: 1:4,000

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LEGEND

- Modelled Stormwater Drainage System
- Two-Dimensional Model Boundary

**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

Figure E1.1
(Sheet 2 of 3)

EXTRACT OF FLOOD PLANNING MAP AT BRAIDWOOD



LEGEND

- Flood Planning Area
- Outer Floodplain
- 637 Flood Planning Level (m AHD)
(Contours are spaced at 0.5 m intervals)

N

40 0 40 80 120 m

Scale: 1:4,000

Lyall & Associates

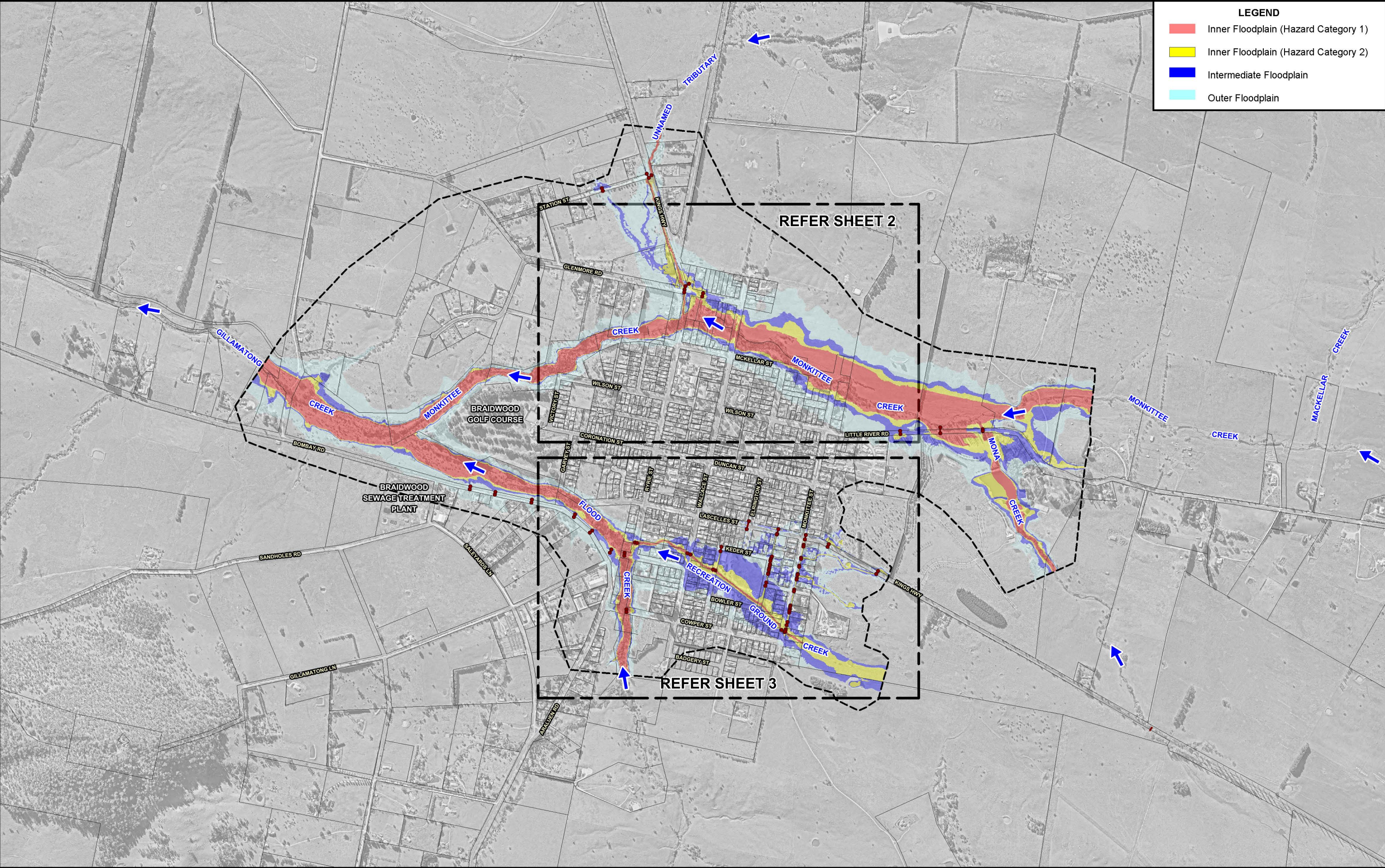
LEGEND

- Modelled Stormwater Drainage System
- Two-Dimensional Model Boundary

BRAIDWOOD FLOODPLAIN RISK MANAGEMENT STUDY AND PLAN

Figure E1.1
(Sheet 3 of 3)

EXTRACT OF FLOOD PLANNING MAP AT BRAIDWOOD



LEGEND

- Inner Floodplain (Hazard Category 1)
- Inner Floodplain (Hazard Category 2)
- Intermediate Floodplain
- Outer Floodplain

N

150 0 150 300 450 m

Scale: 1:15,000

Lyall & Associates

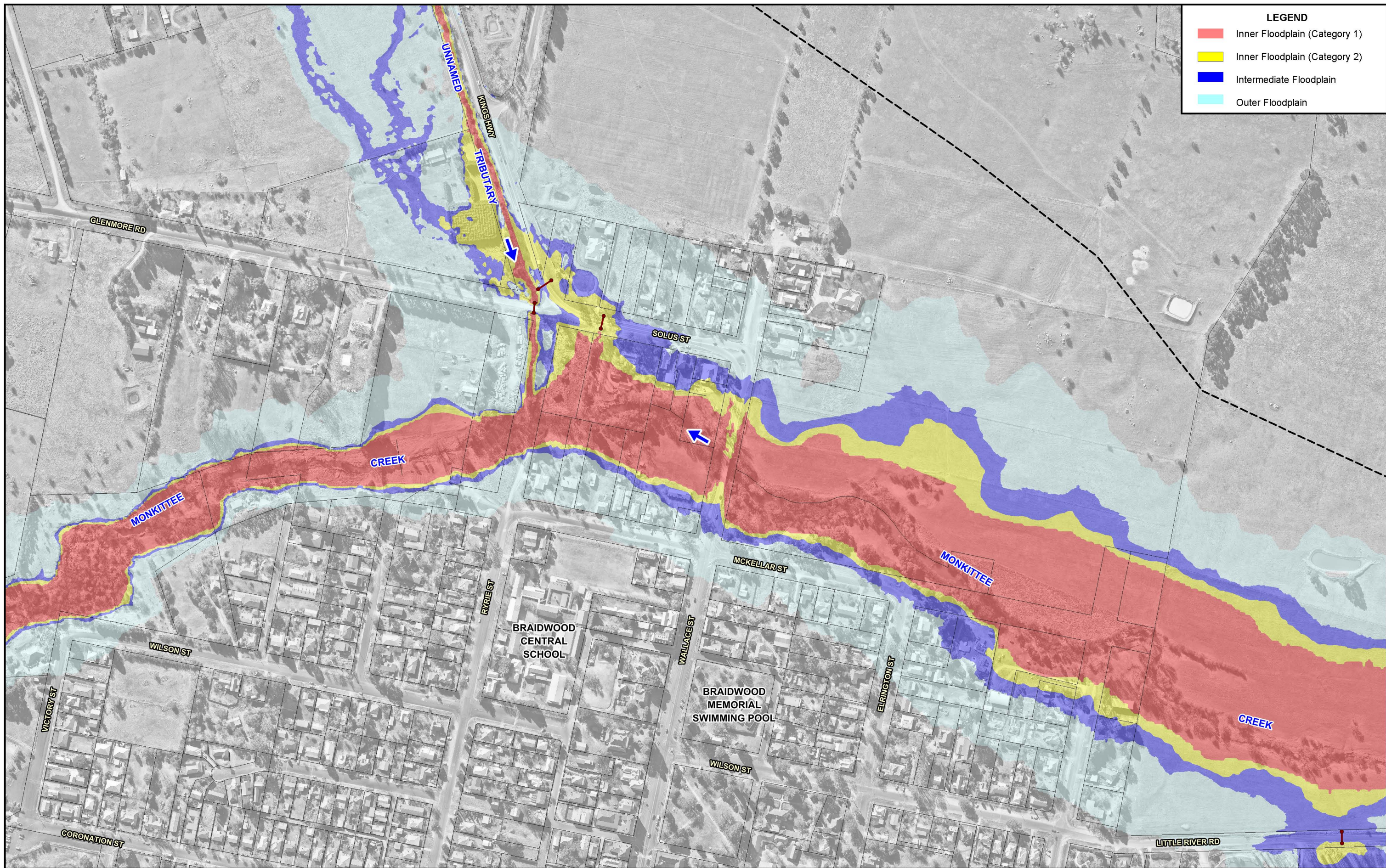
LEGEND

- Modelled Stormwater Drainage System
- Two-Dimensional Model Boundary

BRAIDWOOD FLOODPLAIN RISK MANAGEMENT STUDY AND PLAN

Figure E1.2
(Sheet 1 of 3)

FLOOD HAZARD MAP



LEGEND

- Inner Floodplain (Category 1)
- Inner Floodplain (Category 2)
- Intermediate Floodplain
- Outer Floodplain

N

40 0 40 80 120 m

Scale: 1:4,000

LEGEND

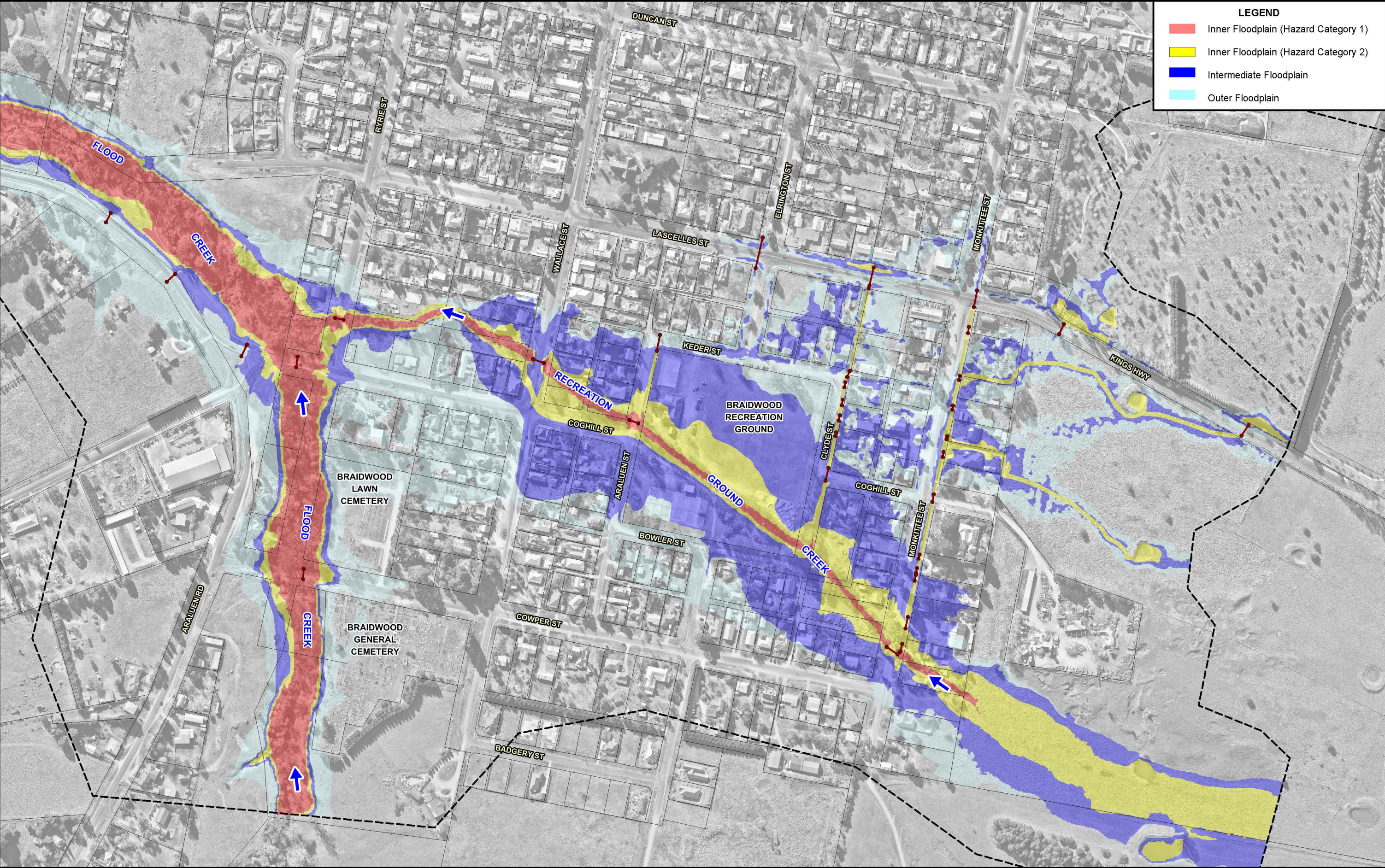
- Modelled Stormwater Drainage System
- Two-Dimensional Model Boundary

**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

Figure E1.2
(Sheet 2 of 3)

FLOOD HAZARD MAP

Lyall & Associates



LEGEND

- Inner Floodplain (Hazard Category 1)
- Inner Floodplain (Hazard Category 2)
- Intermediate Floodplain
- Outer Floodplain

N
40 0 40 80 120 m
Scale: 1:4,000

Lyall & Associates

LEGEND

- Modelled Stormwater Drainage System
- Two-Dimensional Model Boundary

**BRAIDWOOD FLOODPLAIN RISK
MANAGEMENT STUDY AND PLAN**

Figure E1.2
(Sheet 3 of 3)

FLOOD HAZARD MAP