LITHGOW FLOOD STUDY REVIEW

VOLUME 2 – FIGURES

MAY 2017

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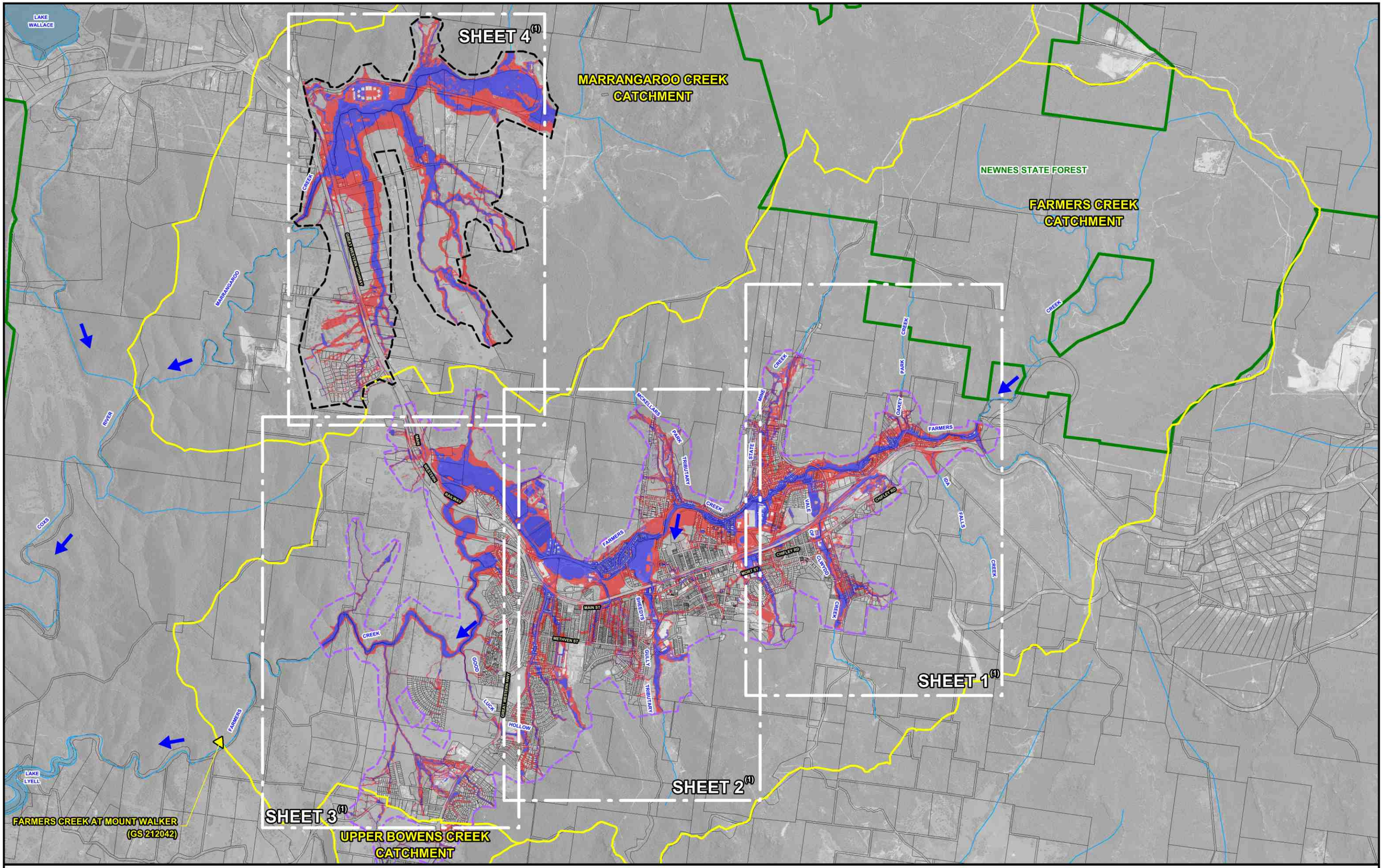
LIST OF FIGURES



N

400 0 400 800 1200 m

Scale: 1:40,000

NOTE:
1. Extent of area covered by sheet in series of figures referred to in Main Report.

LEGEND

- Catchment Boundary
- Extent of Farmers Creek TUFLOW Model
- Extent of Marrangaroo Creek TUFLOW Model
- DPIOW Stream Gauge
- Area Inundated by 1 in 100 year ARI Flood
- Limit of Flood Prone Land
- Reserve Boundary

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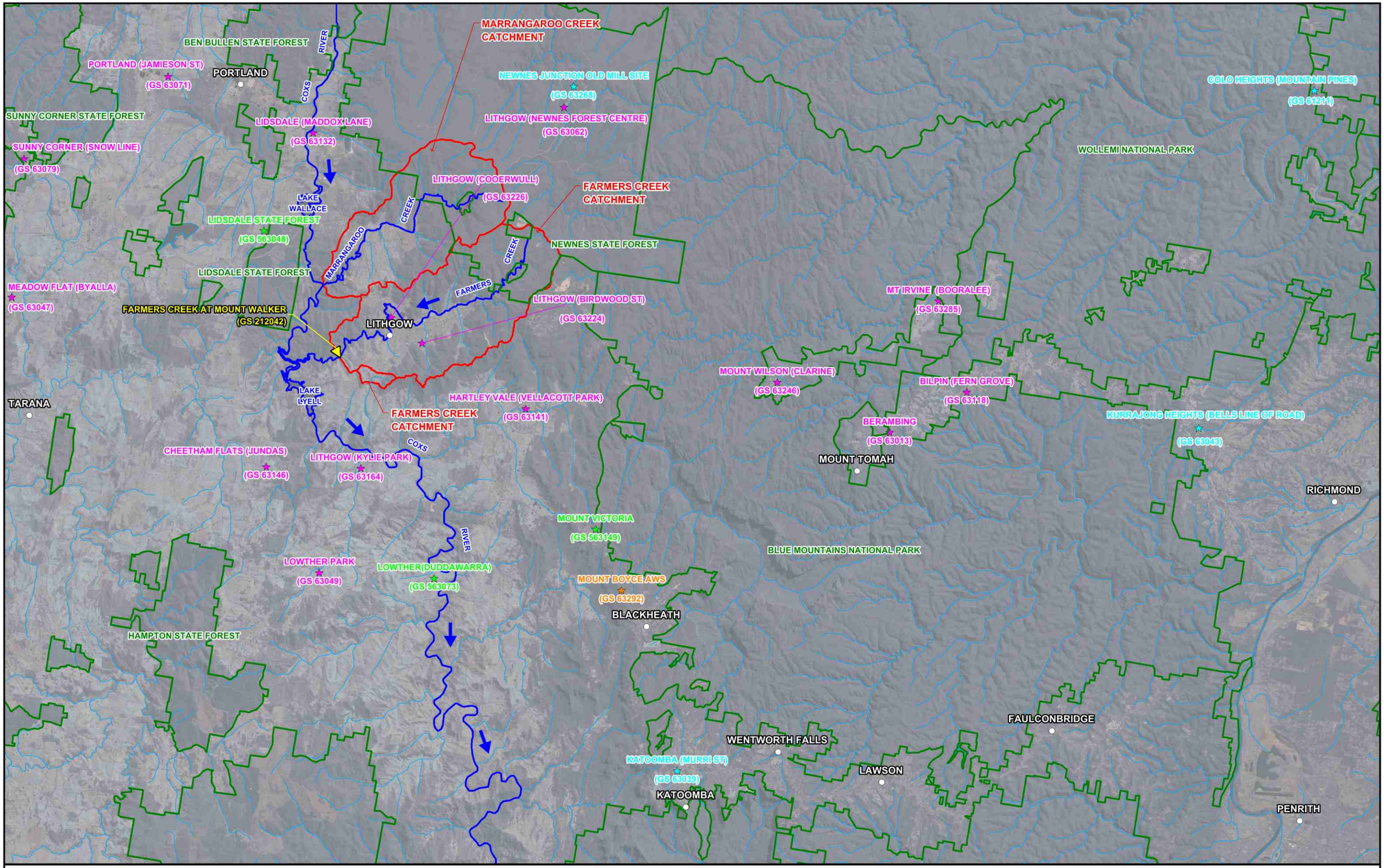
LITHGOW FLOOD STUDY REVIEW

Figure S1

INDICATIVE EXTENT OF FLOOD PRONE LAND AT LITHGOW


MARRANGAROO CREEK CATCHMENT
BEN BULLEN STATE FOREST
PORTLAND (JAMIESON ST)
(GS 63071)
PORTLAND
COXS RIVER
NEWNES JUNCTION OLD MILL SITE
(GS 63268)
COLO HEIGHTS (MOUNTAIN PINES)
(GS 61211)
SUNNY CORNER STATE FOREST
LIDSDALE (MADDOX LANE)
(GS 63132)
LITHGOW (NEWNES FOREST CENTRE)
(GS 63062)
SUNNY CORNER (SNOW LINE)
(GS 63079)
WOLLEMI NATIONAL PARK
LITHGOW (COOERWULL)
(GS 63226)
FARMERS CREEK CATCHMENT
LAKE WALLACE
LIDSDALE STATE FOREST
(GS 563048)
MARRANGAROO CREEK
FARMERS CREEK
NEWNES STATE FOREST
LIDSDALE STATE FOREST
MEADOW FLAT (BYALLA)
(GS 63047)
FARMERS CREEK AT MOUNT WALKER
(GS 212042)
LITHGOW
LITHGOW (BIRDWOOD ST)
(GS 63224)
MT IRVINE (BOORALEE)
(GS 63285)
MOUNT WILSON (CLARINE)
(GS 63246)
BILPIN (FERN GROVE)
(GS 63118)
LAKE LYELL
HARTLEY VALE (VELLACOTT PARK)
(GS 63141)
TARANA
FARMERS CREEK CATCHMENT
BERAMBING
(GS 63013)
KURRAJONG HEIGHTS (BELLS LINE OF ROAD)
(GS 63043)
CHEETHAM FLATS (JUNDAS)
(GS 63146)
LITHGOW (KYLIE PARK)
(GS 63164)
COXS RIVER
MOUNT TOMAH
RICHMOND
MOUNT VICTORIA
(GS 563149)
BLUE MOUNTAINS NATIONAL PARK
LOWTHER PARK
(GS 63049)
LOWTHER(DUDDAWARRA)
(GS 563073)
MOUNT BOYCE AWS
(GS 63292)
BLACKHEATH
HAMPTON STATE FOREST
FAULCONBRIDGE
WENTWORTH FALLS
KATOOMBA (MURRI ST)
(GS 63039)
LAWSON
KATOOMBA
PENRITH
N
2 0 2 4 6 km
Scale: 1:200,000
LEGEND
BoM All Weather Station (AWS)
BoM Pluviographic Rainfall Station
SWC Pluviographic Rainfall Station
BoM Daily Rainfall Station
DPIOW Stream and Pluviographic Rain Gauge
Extent of Two-Dimensional Model Domain
Reserve Boundary
LITHGOW FLOOD STUDY REVIEW
Figure 1.1
STUDY LOCATION PLAN
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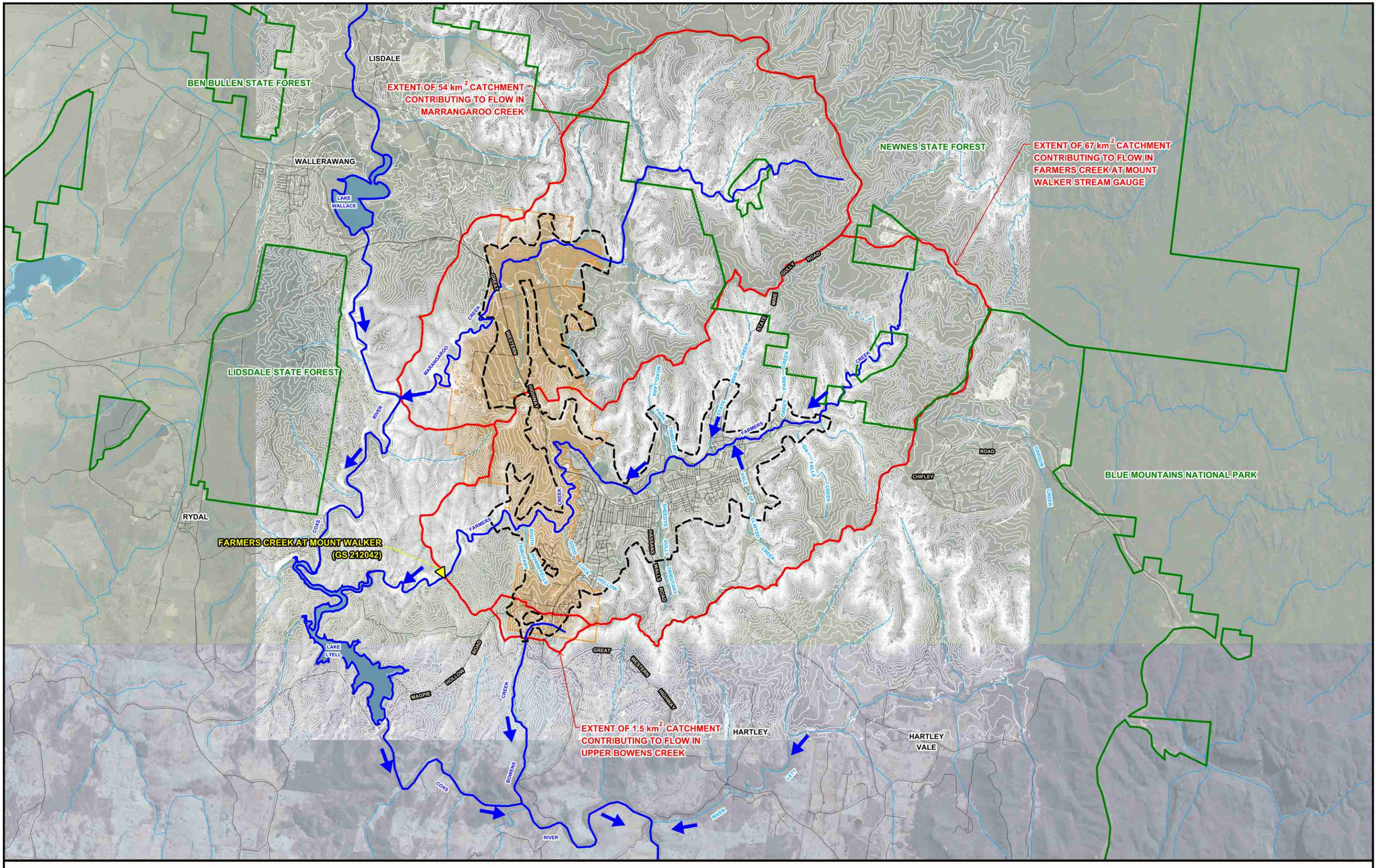

LITHGOW FLOOD STUDY REVIEW

Figure 2.1

CATCHMENT PLAN

120 0 120 240 360 m

Scale: 1:12,000

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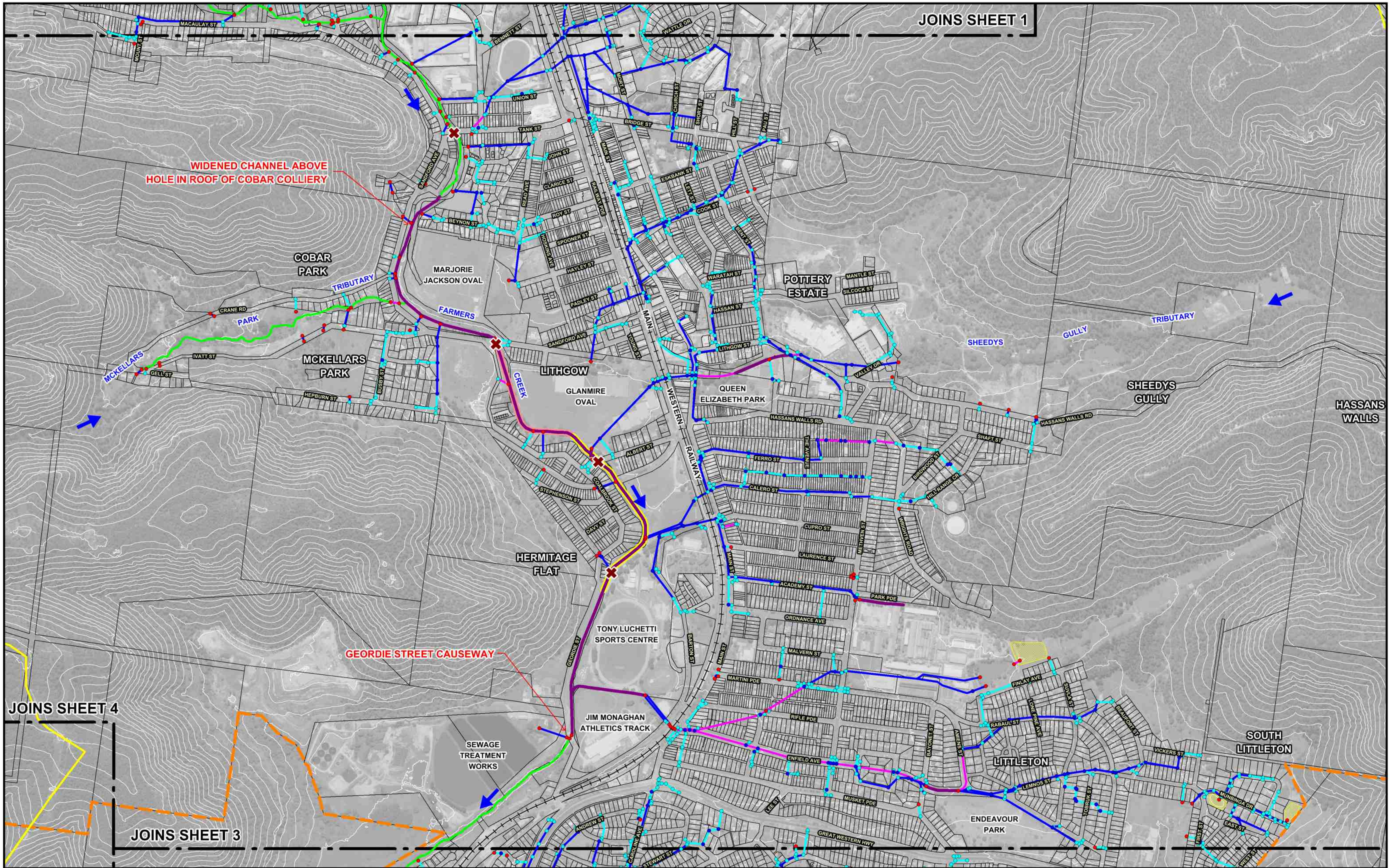
LEGEND

- Inlet Pit
- Junction Pit
- Headwall
- Bridge
- Pipe < 450 mm Diameter
- Pipe ≥ 450 mm Diameter
- Box Culvert
- Unlined Channel
- Catchment Boundary

LITHGOW FLOOD STUDY REVIEW

Figure 2.2
(Sheet 1 of 4)

EXISTING STORMWATER DRAINAGE SYSTEM AT LITHGOW


JOINS SHEET 1
JOINS SHEET 4
JOINS SHEET 3
WIDENED CHANNEL ABOVE
HOLE IN ROOF OF COBAR COLLIERY
GEORDIE STREET CAUSEWAY
COBAR PARK
MCKELLARS PARK
MARJORIE JACKSON OVAL
GLANMIRE OVAL
LITHGOW
QUEEN ELIZABETH PARK
POTTERY ESTATE
SHEEDYS GULLY
HASSANS WALLS
HERMITAGE FLAT
TONY LUCHETTI SPORTS CENTRE
JIM MONAGHAN ATHLETICS TRACK
SEWAGE TREATMENT WORKS
LITTLETON
SOUTH LITTLETON
ENDEAVOUR PARK
FARMERS
CREEK
MCKELLARS
PARK
TRIBUTARY
SHEEDYS
GULLY
TRIBUTARY
MAIN
WESTERN
RAILWAY
MACAULAY ST
UNION ST
TANK ST
BRIDGE ST
BEYNON ST
CRANE RD
IVATT ST
GELL ST
HEPBURN ST
SANDFORD AVE
LITHGOW ST
HASSANS WALLS RD
FERRO ST
CALERO ST
CUPRO ST
LAURENCE ST
ACADEMY ST
PARK PDE
ORDNANCE AVE
MALVERN ST
MARTINI PDE
RIFLE PDE
ENFIELD AVE
MUSKET PDE
GREAT WESTERN HWY
LEMNOS ST
FINLAY AVE
RABAUL ST
VICKERS ST
MUNBINGA DR
EAST ST
GEORDIE ST
STEPHENSON ST
ALBERT ST
VALLEY DR
MANTLE ST
SILCOCK ST

120 0 120 240 360 m

Scale: 1:12,000

LEGEND

- Inlet Pit
- Junction Pit
- Headwall
- Detention Basin
- Bridge
- Pipe < 450 mm Diameter
- Pipe ≥ 450 mm Diameter
- Box Culvert
- Extent of Future Growth Area
- Catchment Boundary
- Concrete Lined Channel
- Extent of Future Stages 3 and 4 Flood Modification Works
- Extent of Stages 1 and 2 Flood Modification Works
- Unlined Channel

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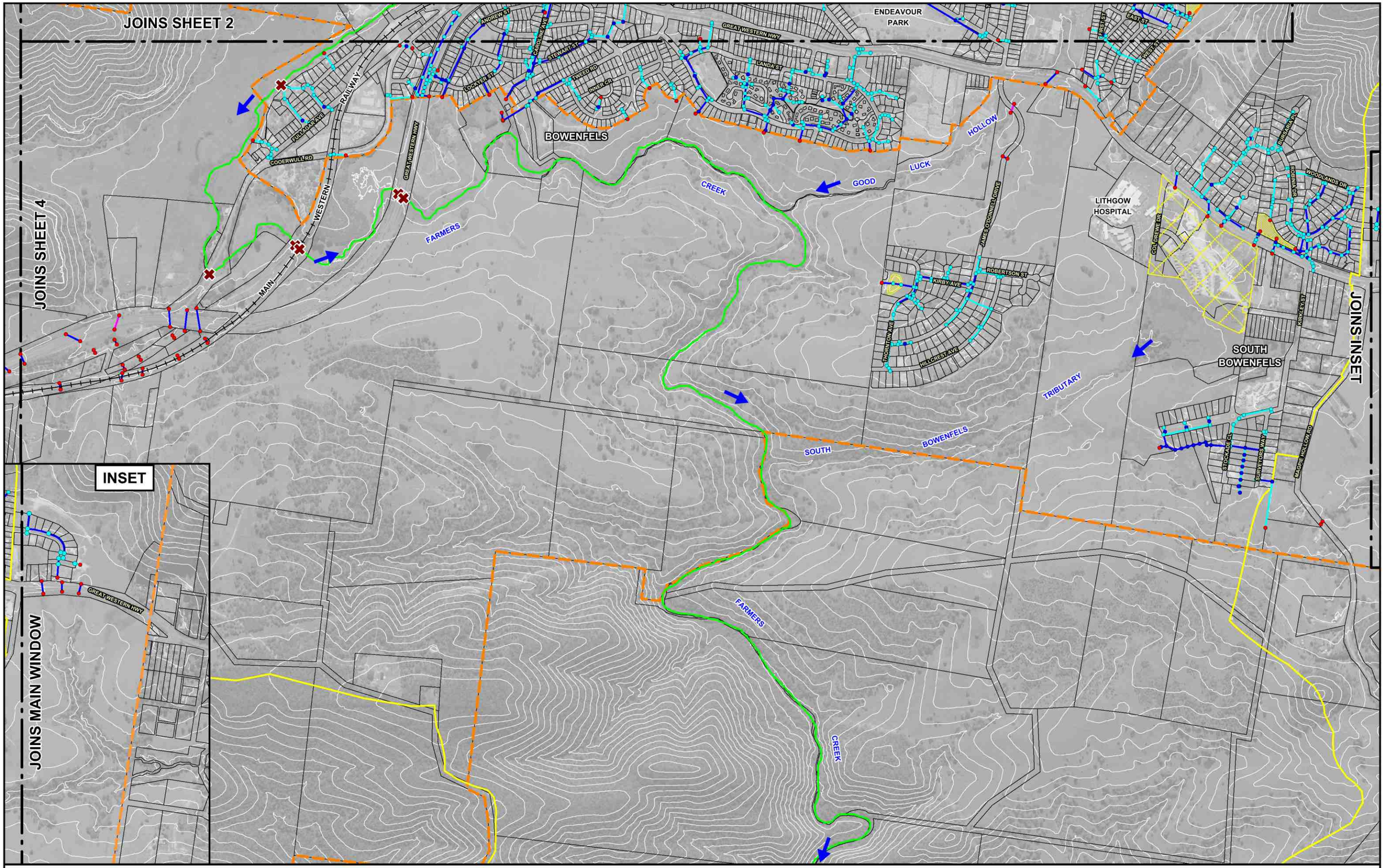
LITHGOW FLOOD STUDY REVIEW

Figure 2.2
(Sheet 2 of 4)

EXISTING STORMWATER DRAINAGE SYSTEM AT LITHGOW



120 0 120 240 360 m

Scale: 1:12,000

LEGEND

- Inlet Pit
- Junction Pit
- Headwall
- Detention Basin
- Bridge
- Pipe < 450 mm Diameter
- Pipe ≥ 450 mm Diameter
- Box Culvert
- Extent of Future Growth Area
- Unlined Channel
- Extent of Recent Subdivision Development. Details of New Stormwater Drainage System have not been Incorporated in Farmers Creek TUFLOW Model
- Catchment Boundary

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LITHGOW FLOOD STUDY REVIEW

Figure 2.2
(Sheet 3 of 4)

EXISTING STORMWATER DRAINAGE SYSTEM AT LITHGOW

JOINS SHEET 2

JOINS SHEET 3

MARRANGAROO

MARRANGAROO

RESERVE RD

LITHGOW CORRECTIONAL CENTRE

CREEK

GREAT WESTERN HWY

WESTERN

RAILWAY

MAIN

MARRANGAROO CREEK WEIR

LITHGOW GOLF CLUB

GREAT WESTERN HWY

CRANMER DR

PIMPALA ST

KORRA ST

N

120 0 120 240 360 m

Scale: 1:12,000

LEGEND

- Inlet Pit
- Junction Pit
- Headwall
- Bridge
- Pipe < 450 mm Diameter
- Pipe ≥ 450 mm Diameter
- Box Culvert
- Extent of Future Growth Area
- Unlined Channel
- Catchment Boundary

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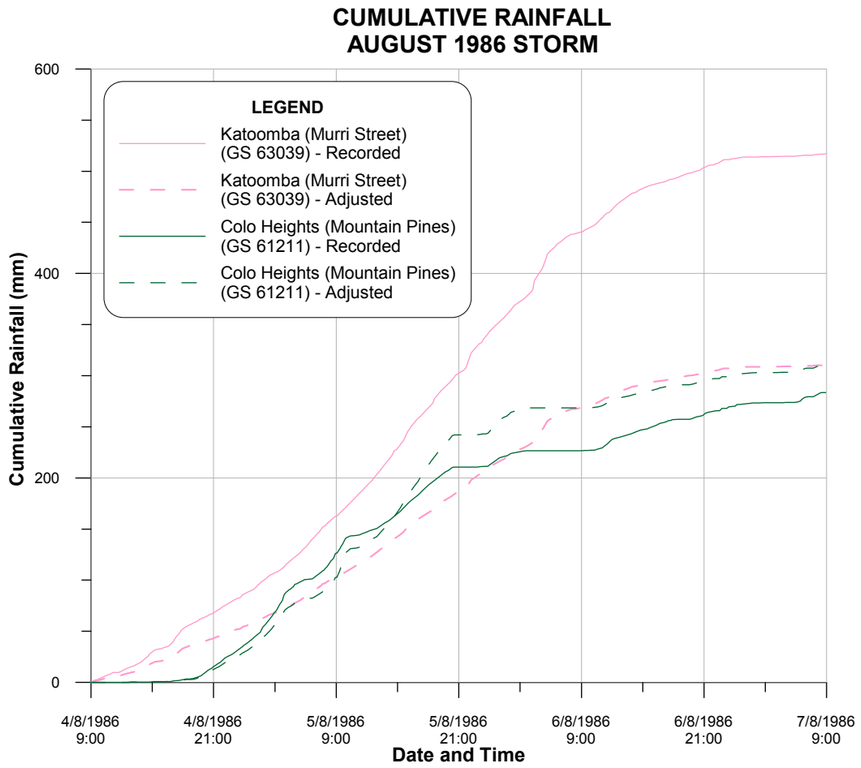
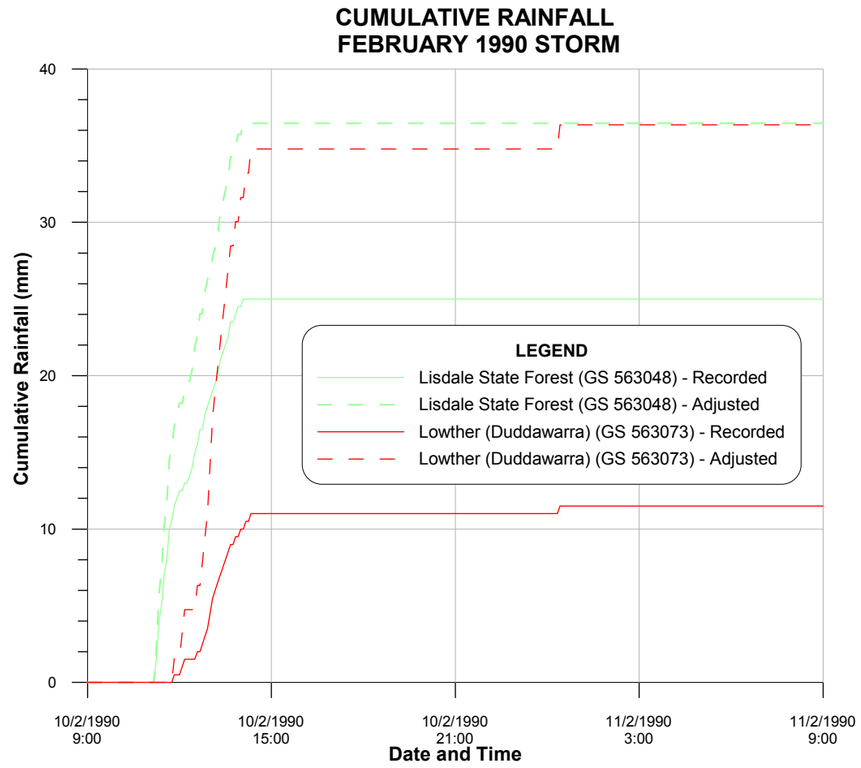
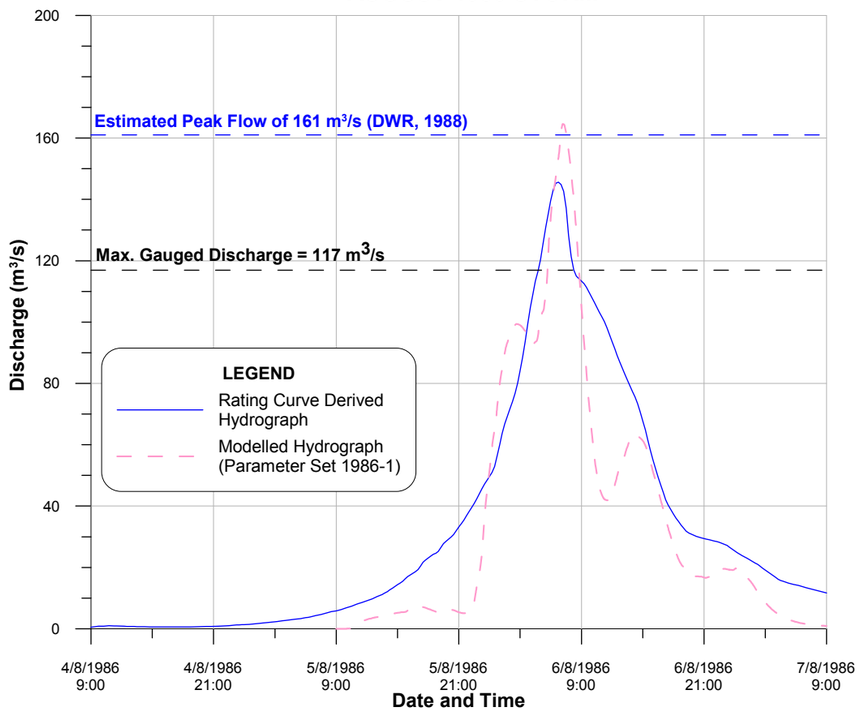
LITHGOW FLOOD STUDY REVIEW

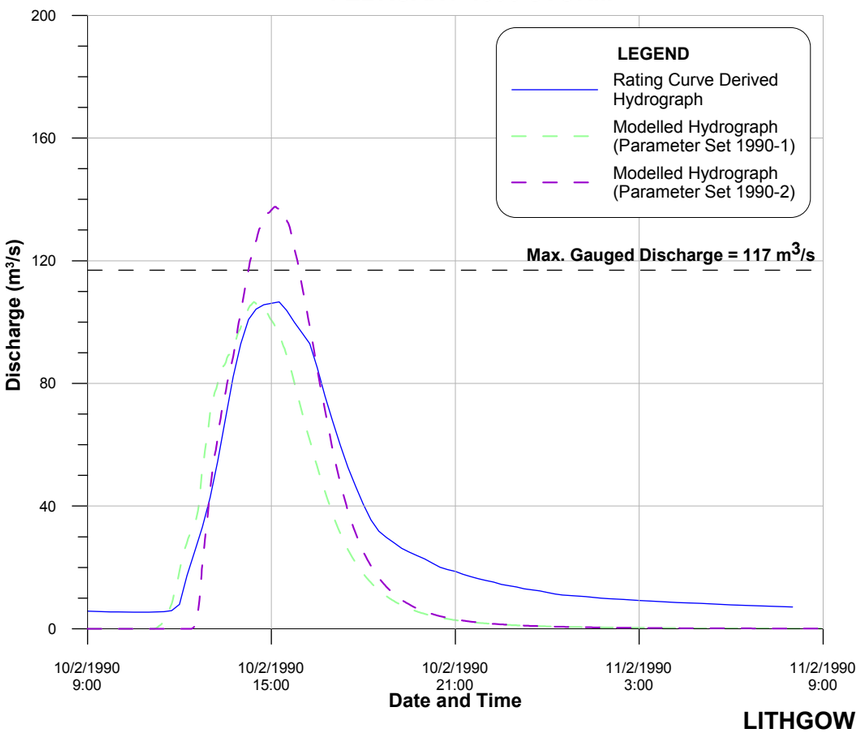
Figure 2.2
(Sheet 4 of 4)

EXISTING STORMWATER DRAINAGE SYSTEM AT LITHGOW









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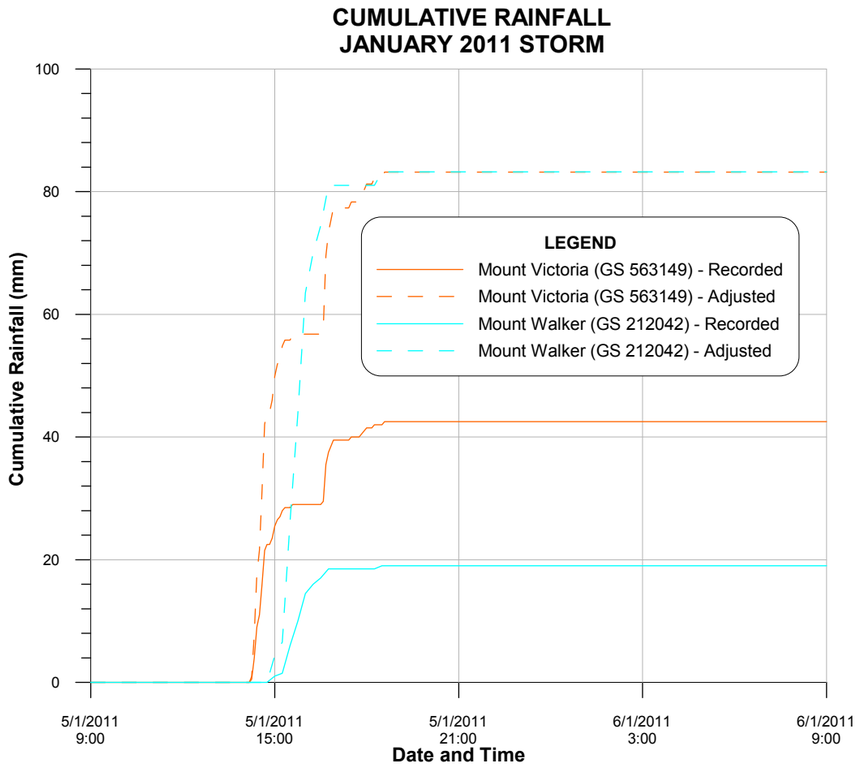
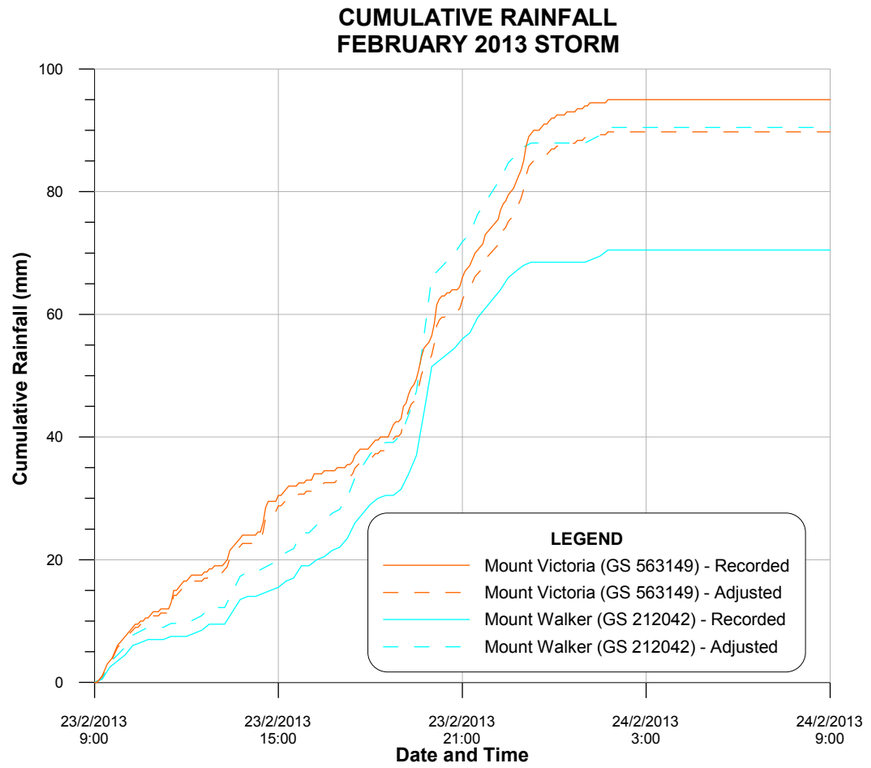
NOTE:
Refer Table 3.1 for details of parameter set.

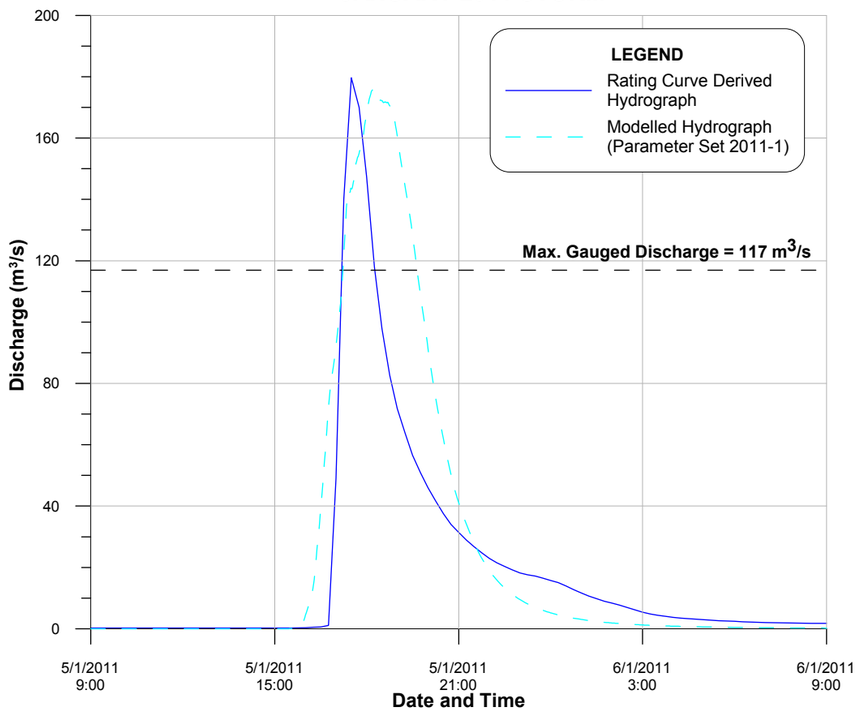
LITHGOW FLOOD STUDY REVIEW

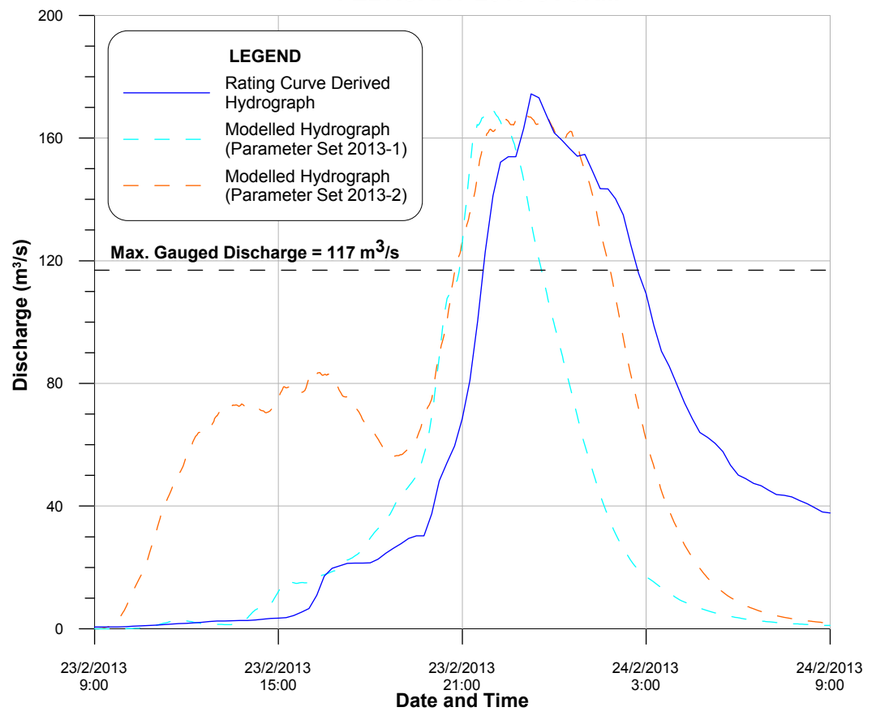
Figure 2.3
(Sheet 1 of 2)

CUMULATIVE RAINFALL AND DISCHARGE HYDROGRAPHS
FARMERS CREEK AT MOUNT WALKER STREAM GAUGE (GS 212042) FOR HISTORIC STORMS









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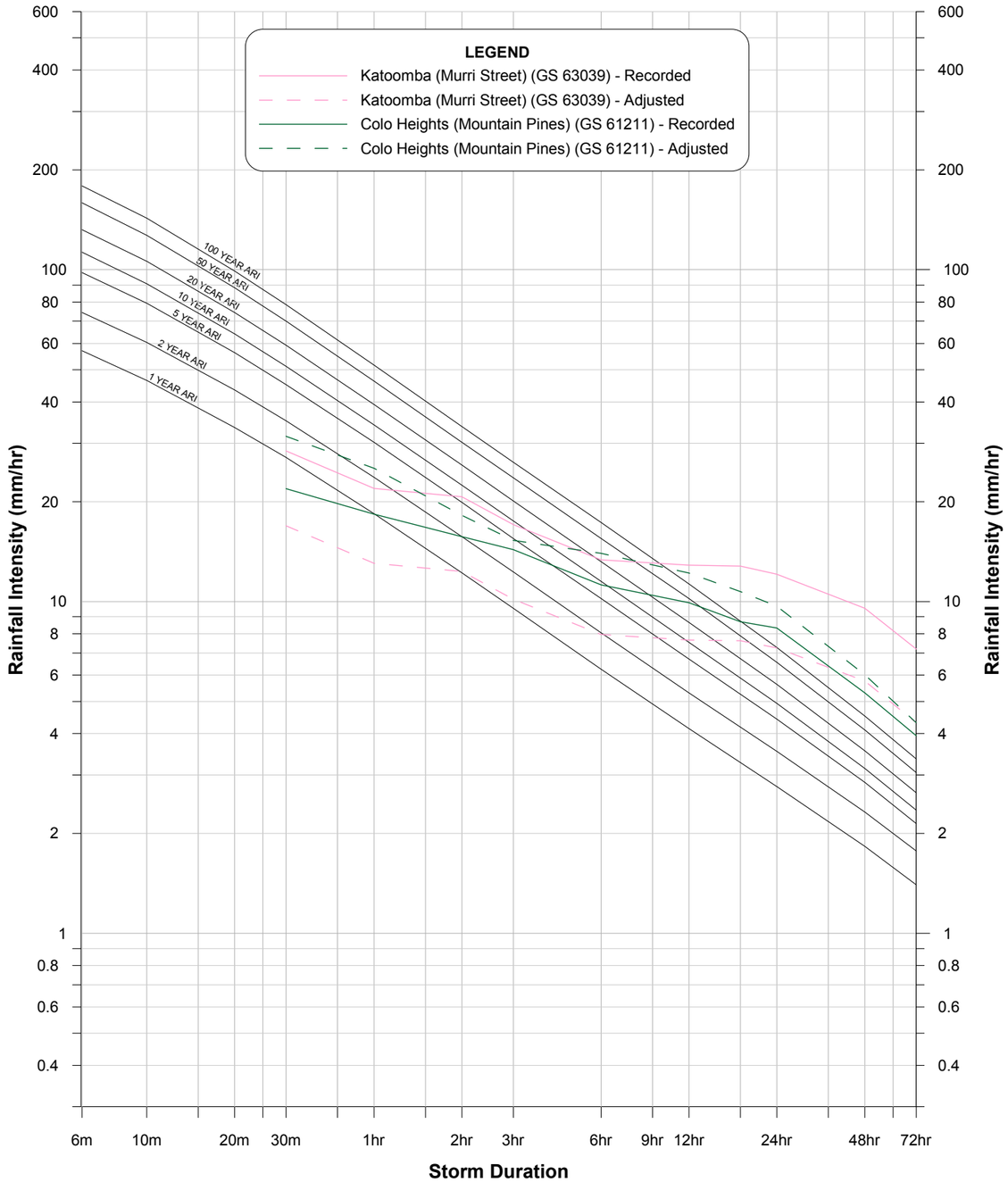
NOTE:
Refer Table 3.1 for details of parameter set.

LITHGOW FLOOD STUDY REVIEW

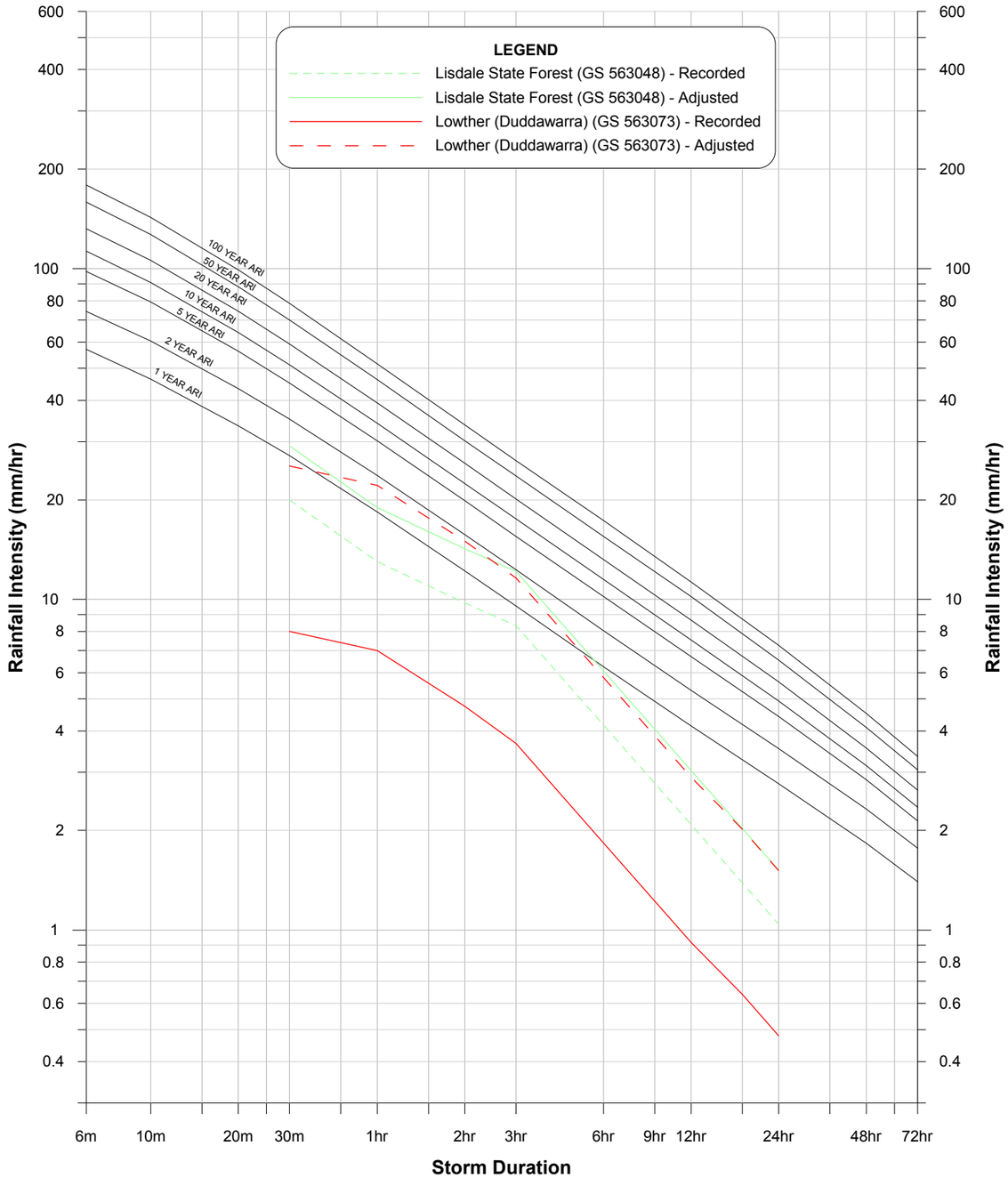
Figure 2.3
(Sheet 2 of 2)

CUMULATIVE RAINFALL AND DISCHARGE HYDROGRAPHS
FARMERS CREEK AT MOUNT WALKER STREAM GAUGE (GS 212042) FOR HISTORIC STORMS

AUGUST 1986 STORM



FEBRUARY 1990 STORM



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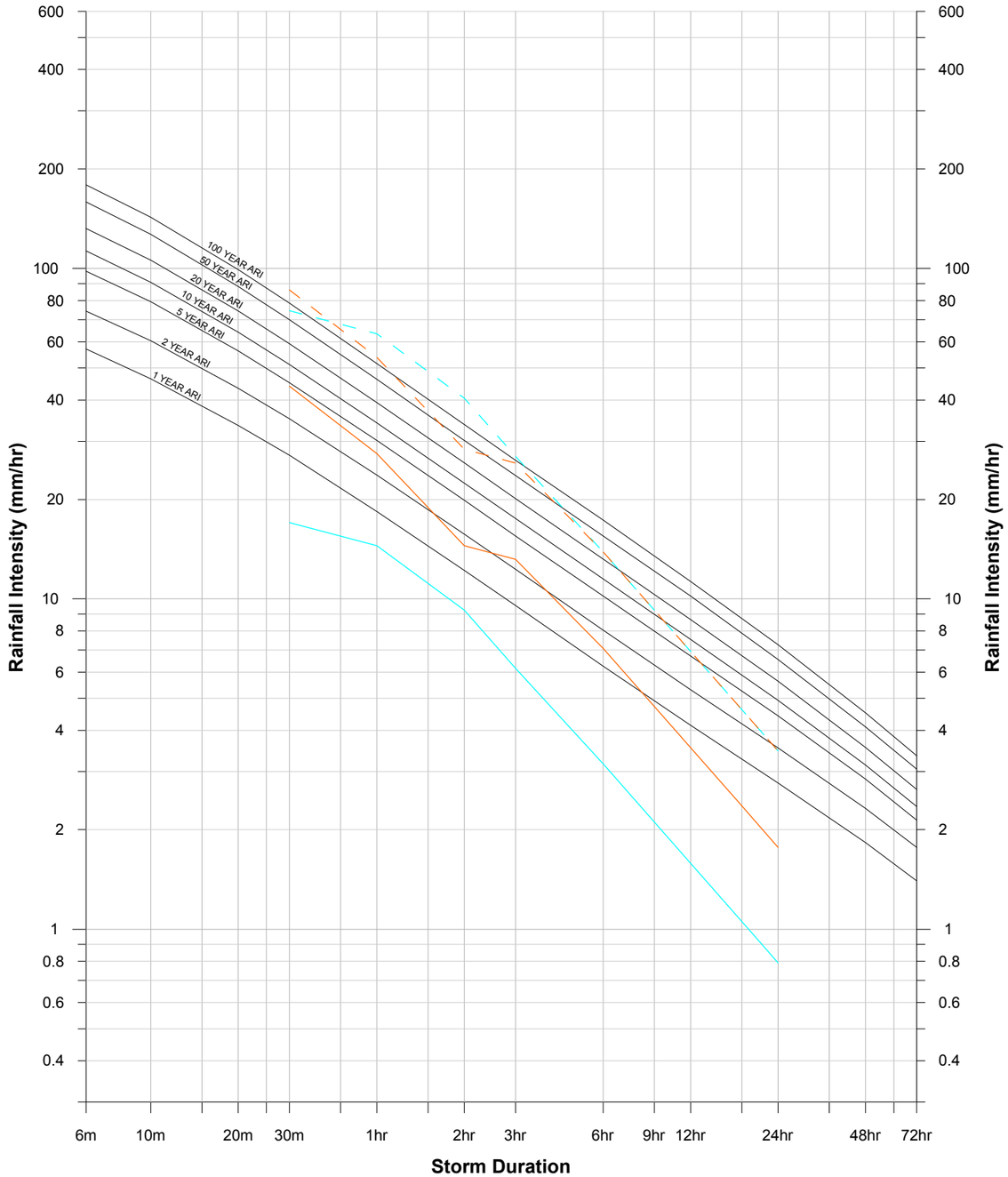
LITHGOW FLOOD STUDY REVIEW

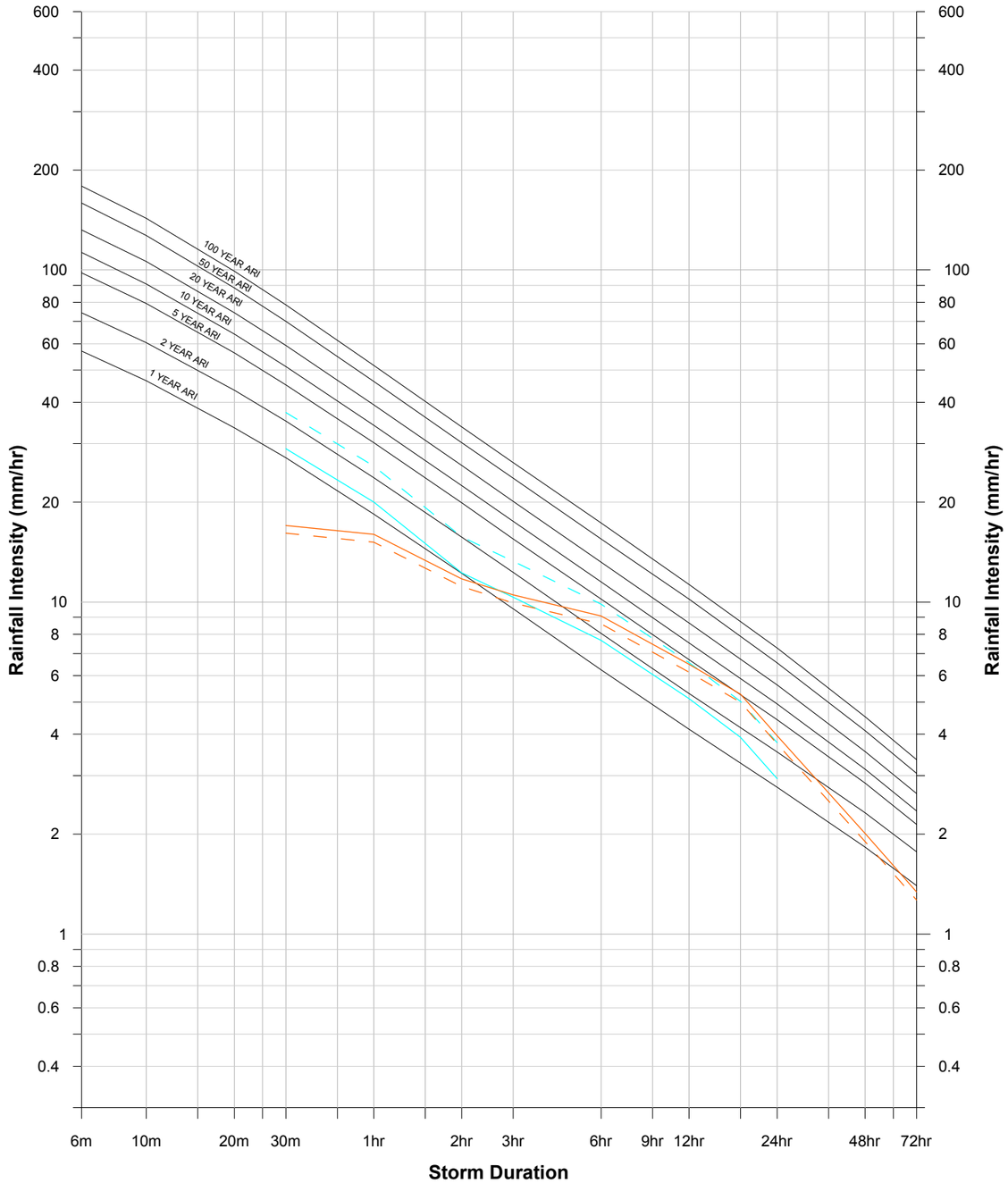
Figure 2.4
(Sheet 1 of 2)

INTENSITY-FREQUENCY-DURATION CURVES
AND HISTORIC RAINFALL

JANUARY 2011 STORM



FEBRUARY 2013 STORM



LEGEND

- Mount Walker (GS 212042) - Recorded
- Mount Walker (GS 212042) - Adjusted
- Mount Victoria (GS 563149) - Recorded
- Mount Victoria (GS 563149) - Adjusted

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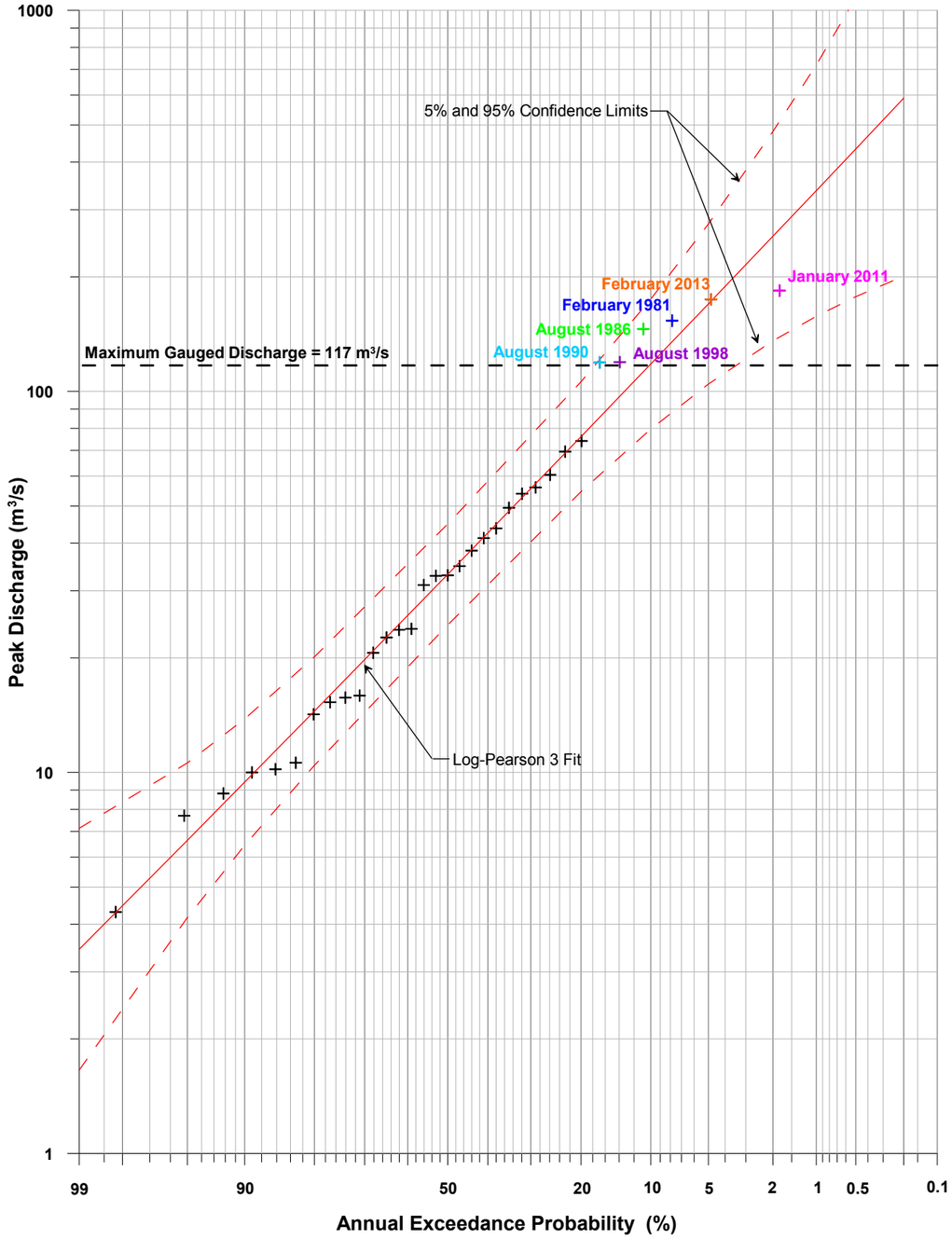
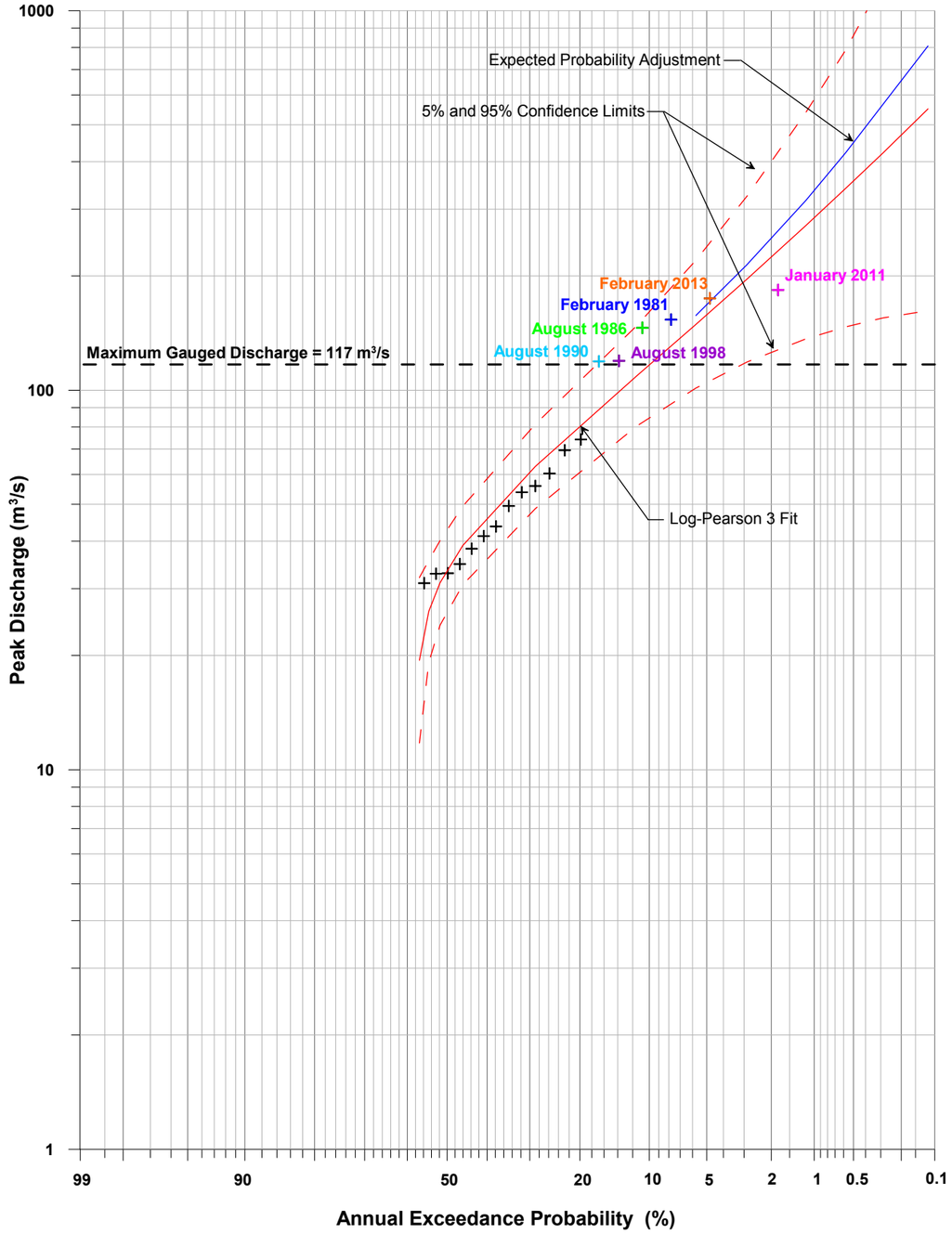
LITHGOW FLOOD STUDY REVIEW

Figure 2.4
(Sheet 2 of 2)

INTENSITY-FREQUENCY-DURATION CURVES
AND HISTORIC RAINFALL





LITHGOW FLOOD STUDY REVIEW

Figure 2.5

FLOOD FREQUENCY RELATIONSHIP
LOG-PEARSON 3 ANNUAL SERIES
FARMERS CREEK AT MOUNT WALKER STREAM GAUGE (GS 212042)

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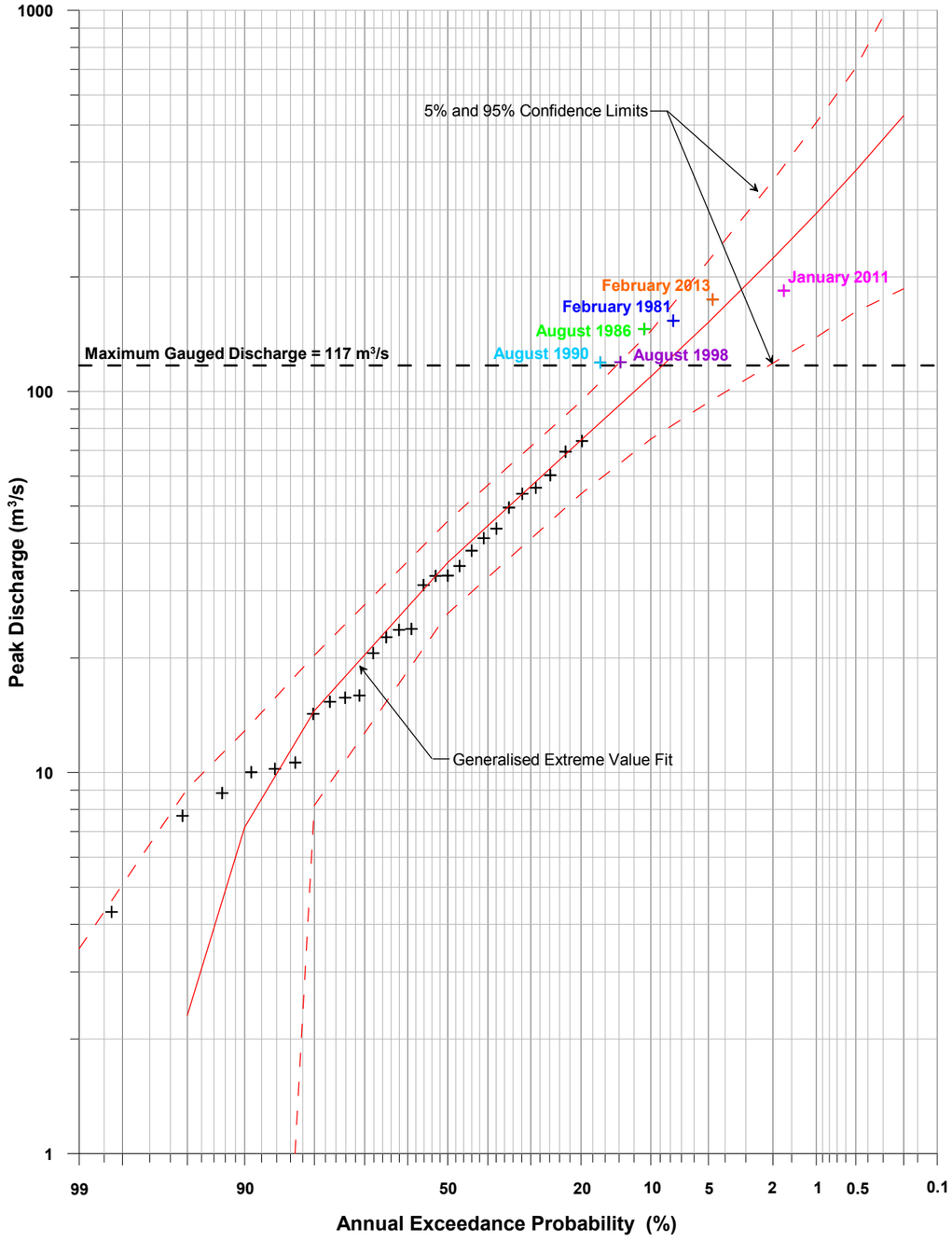

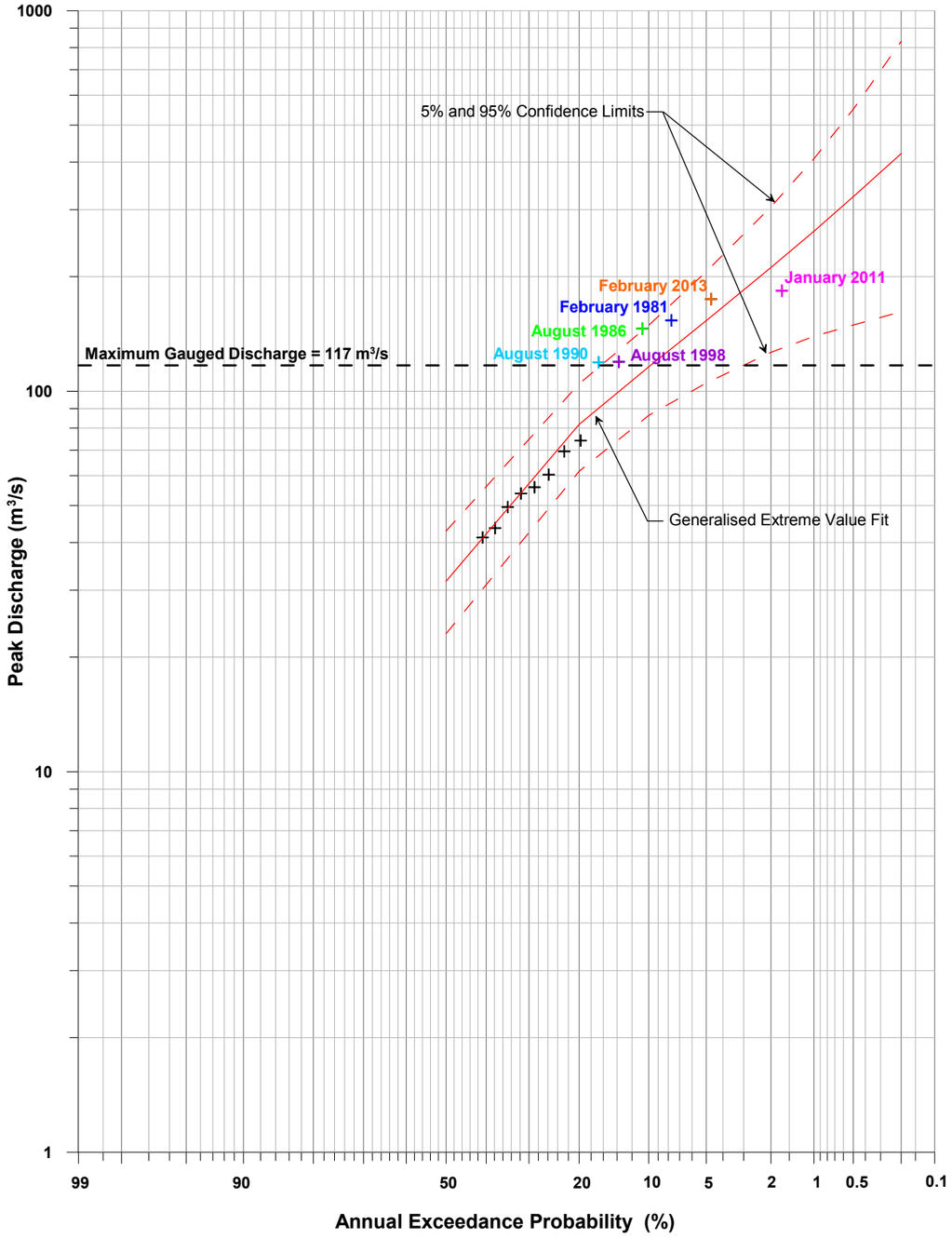

LITHGOW FLOOD STUDY REVIEW

Figure 2.6

FLOOD FREQUENCY RELATIONSHIP
GENERALISED EXTREME VALUE ANNUAL SERIES
FARMERS CREEK AT MOUNT WALKER STREAM GAUGE (GS 212042)

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REFER TO FIGURE 3.1 SHEET 4

REFER TO FIGURE 3.1 SHEET 2

REFER TO FIGURE 3.1 SHEET 3

LAKE WALLACE

LAKE LYELL

FARMERS CREEK AT MOUNT WALKER (GS 212042)

A

B

C

D

GREAT WESTERN HIGHWAY

MARRANGAROO CREEK

COXS RIVER

GULLY ROAD

STATE MINE

FARMERS CREEK

HASSANS WALLS ROAD

CHIFLEY ROAD

N

600 0 600 1200 1800 m

Scale: 1:60,000

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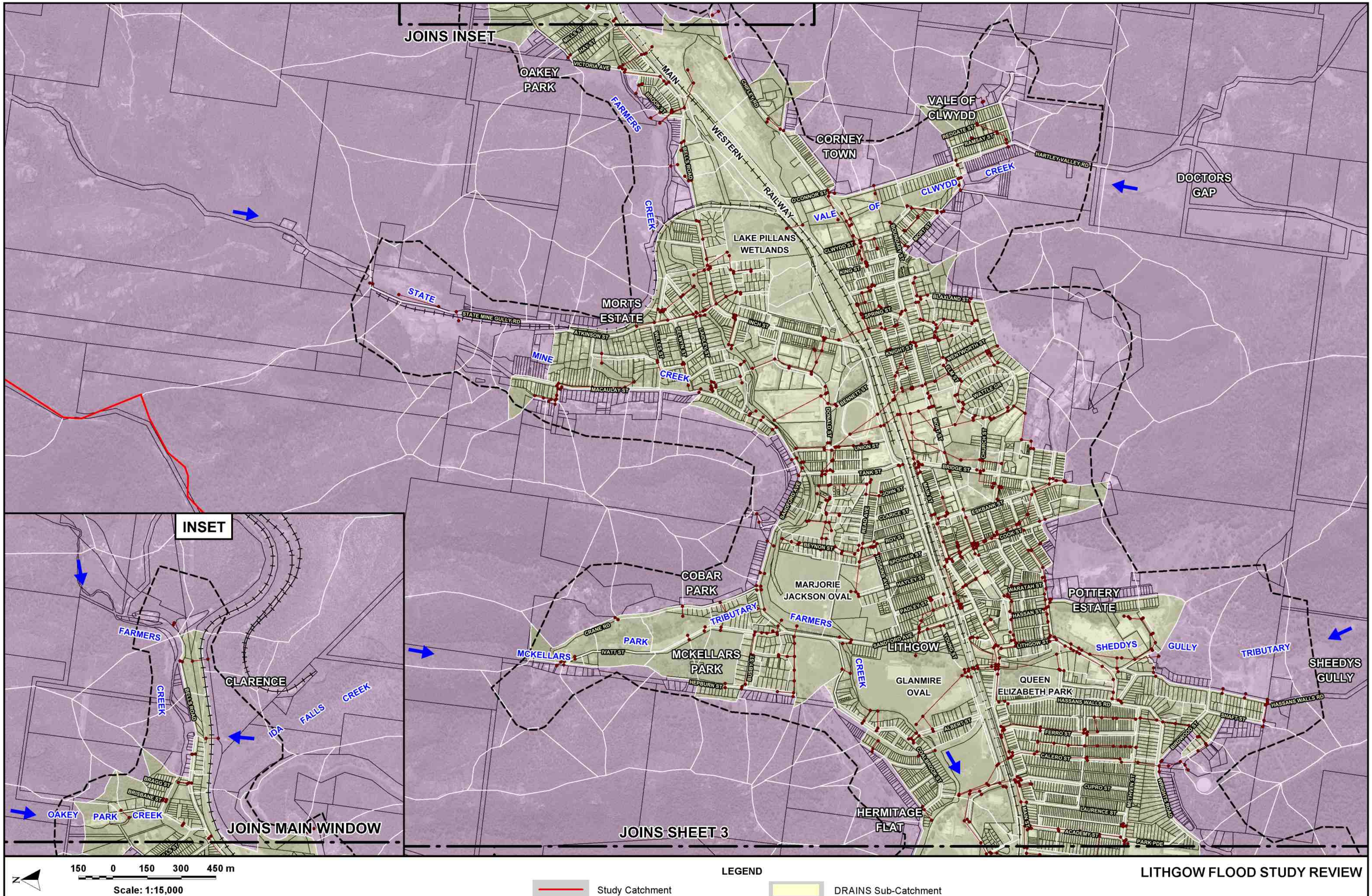
LEGEND

- Study Catchment
- Sub-Catchment Boundary
- DPIOW Stream Gauge
- Farmers Creek PMP Ellipse
- Marrangaroo Creek PMP Ellipse
- DRAINS Sub-Catchment
- RAFTS Sub-Catchment
- RAFTS Sub-Catchment Link
- TUFLOW Model Layout

LITHGOW FLOOD STUDY REVIEW

Figure 3.1
(Sheet 1 of 4)

HYDROLOGIC MODEL LAYOUT


JOINS INSET
OAKEY PARK
FARMERS CREEK
MAIN WESTERN RAILWAY
CORNEY TOWN
VALE OF CLWYDD
HARTLEY VALLEY RD
VALE OF CLWYDD CREEK
DOCTORS GAP
LAKE PILLANS WETLANDS
MORTS ESTATE
STATE MINE GULLY RD
STATE MINE CREEK
ATKINSON ST
MACAULAY ST
INCH ST
BLAXLAND ST
SPRING ST
KNIGHT ST
WENTWORTH ST
UNION ST
TANK ST
BRIDGE ST
ESKBANK ST
COOK ST
BEYNON ST
COBAR PARK
MARJORIE JACKSON OVAL
TRIBUTARY
FARMERS
POTTERY ESTATE
WARATAH ST
HASSAN ST
CRANE RD
PARK
MCKELLARS
MCKELLARS PARK
HEPBURN ST
SANDFORD AVE
LITHGOW
LITHGOW ST
SHEDDYS GULLY TRIBUTARY
SHEEDYS GULLY
CREEK
GLANMIRE OVAL
QUEEN ELIZABETH PARK
HASSANS WALLS RD
ALBERT ST
FERRO ST
CALERO ST
CUPRO ST
LAURENCE ST
ACADEMY ST
PARK PDE
HERMITAGE FLAT
JOINS SHEET 3
INSET
FARMERS CREEK
CLARENCE
IDA FALLS CREEK
BELLS ROAD
BRAGG ST
BRISBANE ST
OAKEY PARK CREEK
JOINS MAIN WINDOW
150 0 150 300 450 m
Scale: 1:15,000

LEGEND

- Study Catchment
- Sub-Catchment Boundary
- Stormwater Drainage System
- DRAINS Sub-Catchment
- RAFTS Sub-Catchment
- Two-Dimensional Model Boundary

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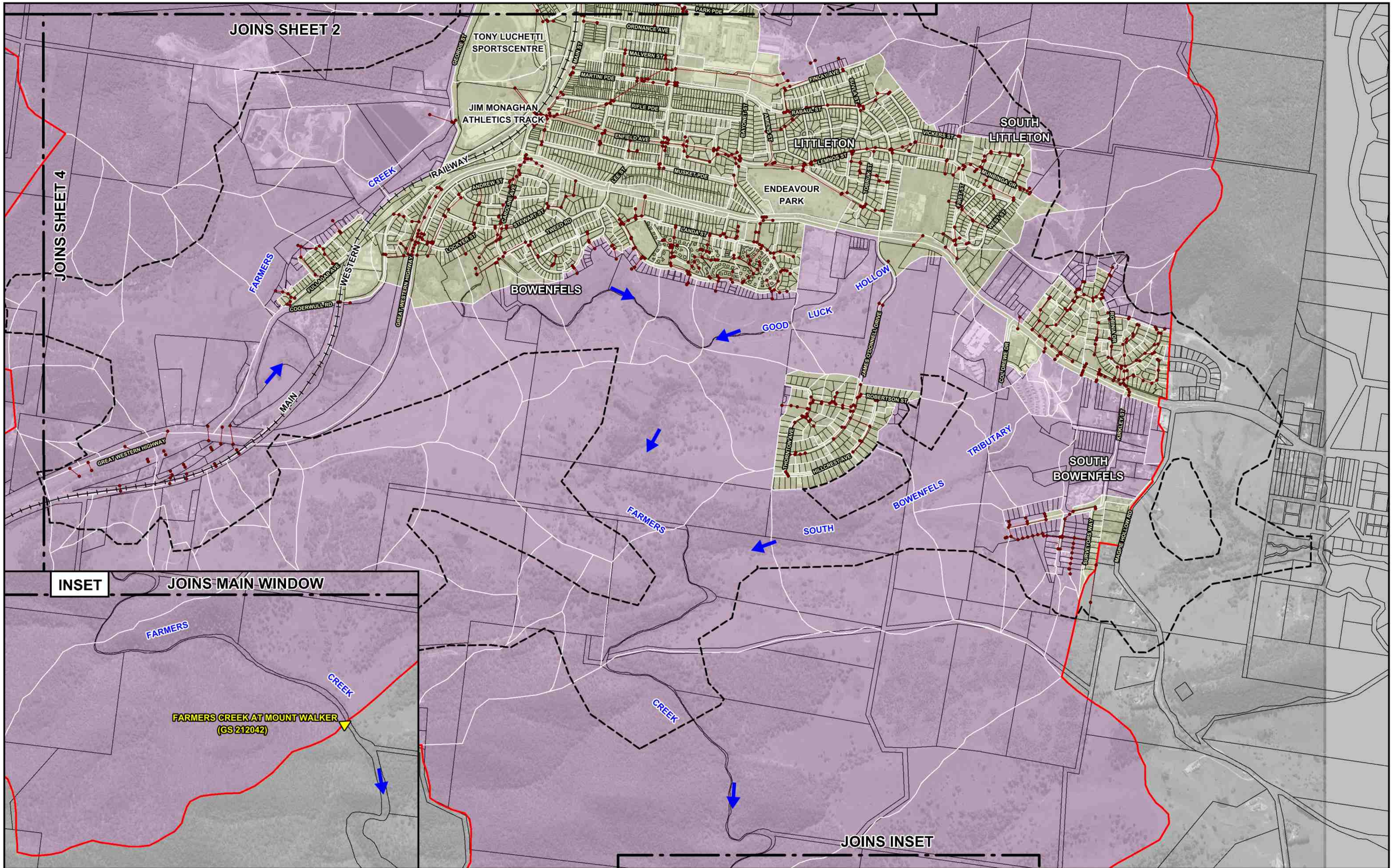
LITHGOW FLOOD STUDY REVIEW

Figure 3.1
(Sheet 2 of 4)

HYDROLOGIC MODEL LAYOUT



LEGEND

- Study Catchment
- Sub-Catchment Boundary
- Stormwater Drainage System
- DPIOW Stream Gauge
- DRAINS Sub-Catchment
- RAFTS Sub-Catchment
- Two-Dimensional Model Boundary

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LITHGOW FLOOD STUDY REVIEW

Figure 3.1
(Sheet 3 of 4)

HYDROLOGIC MODEL LAYOUT

JOINS SHEET 2

JOINS SHEET 3

MARRANGAROO

MARRANGAROO

LITHGOW CORRECTIONAL CENTRE

CREEK

GREAT WESTERN HIGHWAY

MAIN WESTERN RAILWAY

LITHGOW GOLF CLUB

GREAVES DR

PIMPALA ST

KORRA ST

N

150 0 150 300 450 m

Scale: 1:15,000

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LEGEND

- Study Catchment
- Sub-Catchment Boundary
- Stormwater Drainage System
- DRAINS Sub-Catchment
- RAFTS Sub-Catchment
- Two-Dimensional Model Boundary

LITHGOW FLOOD STUDY REVIEW

Figure 3.1
(Sheet 4 of 4)

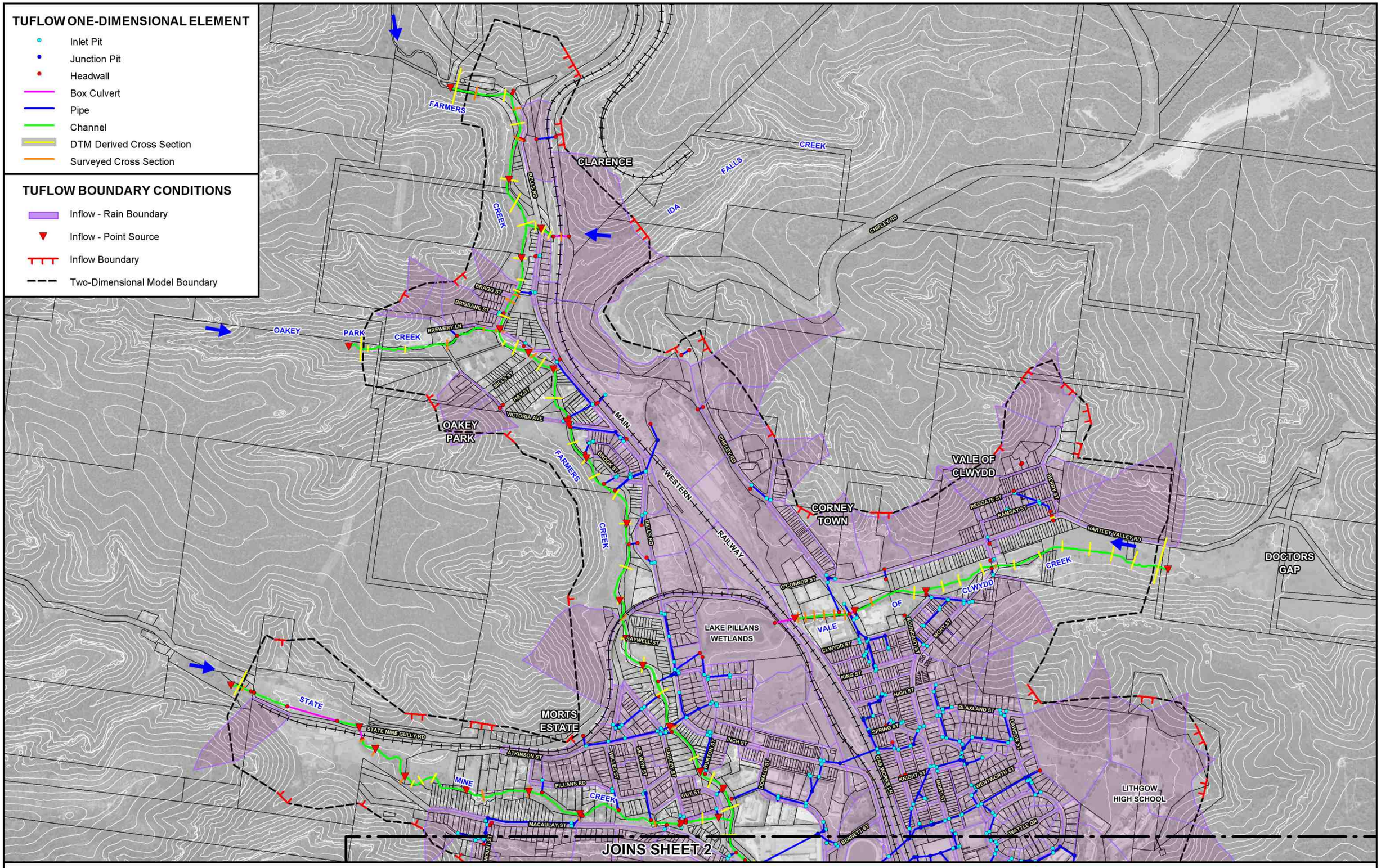
HYDROLOGIC MODEL LAYOUT

TUFLOW ONE-DIMENSIONAL ELEMENT

- Inlet Pit
- Junction Pit
- Headwall
- Box Culvert
- Pipe
- Channel
- DTM Derived Cross Section
- Surveyed Cross Section

TUFLOW BOUNDARY CONDITIONS

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



120 0 120 240 360 m

Scale: 1:12,000

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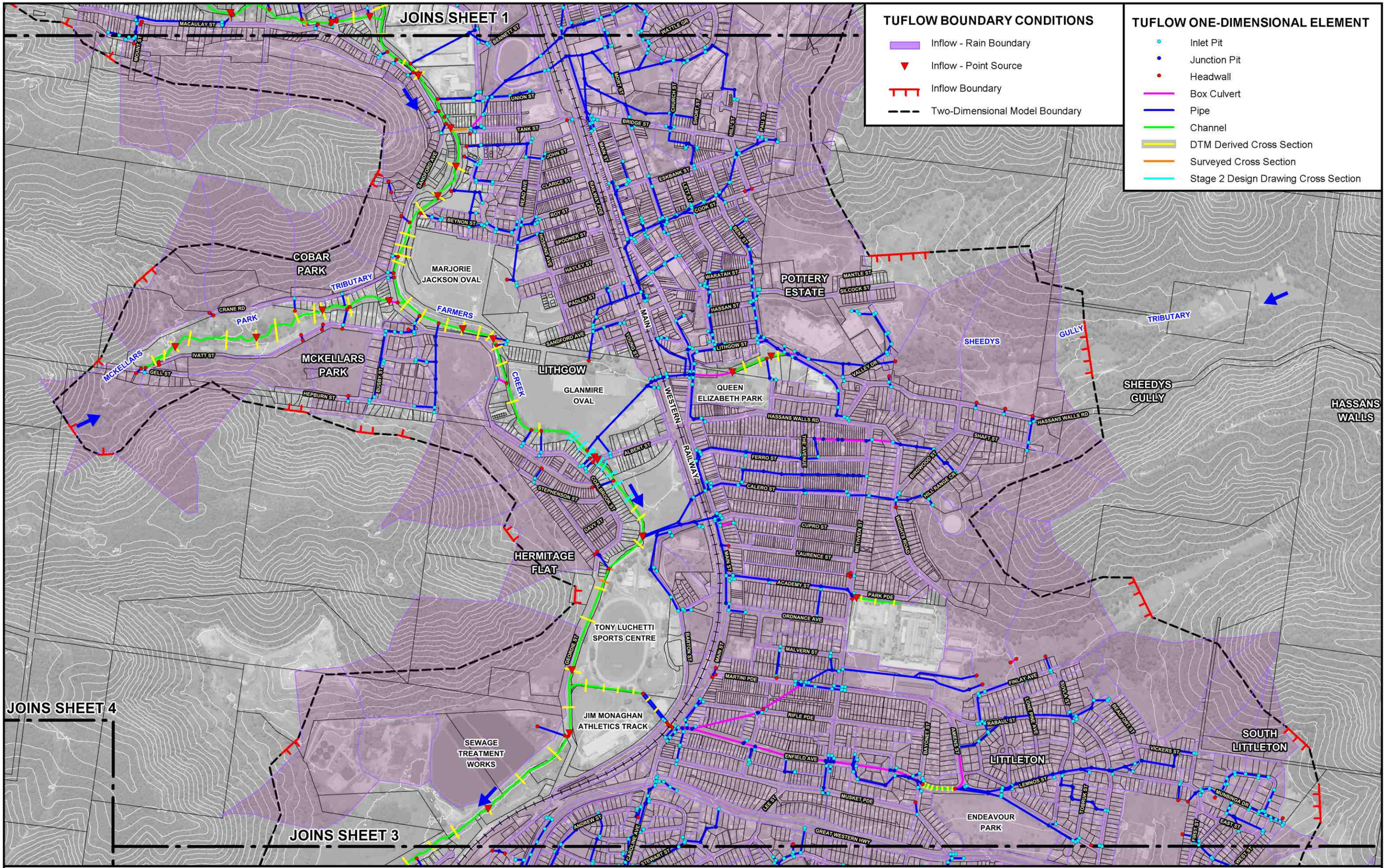
LITHGOW FLOOD STUDY REVIEW

Figure 4.1
(Sheet 1 of 4)

TUFLOW MODEL LAYOUT


JOINS SHEET 1
JOINS SHEET 4
JOINS SHEET 3
TUFLOW BOUNDARY CONDITIONS
Inflow - Rain Boundary
Inflow - Point Source
Inflow Boundary
Two-Dimensional Model Boundary
TUFLOW ONE-DIMENSIONAL ELEMENT
Inlet Pit
Junction Pit
Headwall
Box Culvert
Pipe
Channel
DTM Derived Cross Section
Surveyed Cross Section
Stage 2 Design Drawing Cross Section
COBAR PARK
MARJORIE JACKSON OVAL
MCKELLARS PARK
LITHGOW
GLANMIRE OVAL
QUEEN ELIZABETH PARK
POTTERY ESTATE
SHEEDYS GULLY
HASSANS WALLS
HERMITAGE FLAT
TONY LUCHETTI SPORTS CENTRE
JIM MONAGHAN ATHLETICS TRACK
SEWAGE TREATMENT WORKS
LITTLETON
SOUTH LITTLETON
ENDEAVOUR PARK
MACAULAY ST
BENNETT ST
WATTLE DR
UNION ST
TANK ST
JOHN ST
BRIDGE ST
MORT ST
CHURCH ST
SHORT ST
HILL ST
PAU ST
ESKBANK ST
KEST ST
COOK ST
GERAY ST
CLARICE ST
ROY ST
BEYNON ST
SPOONER ST
HAYLEY ST
PADLEY ST
SANDFORD AVE
SANDFORD AVE
REID AVE
HOSKINS AVE
RAILWAY 203
MAIN ST
YOUNG ST
WARATAH ST
HASSAN ST
LITHGOW ST
MANTLE ST
SILCOCK ST
VALLEY DR
TRIBUTARY
GULLY
SHEEDYS
CRANE RD
PARK
TRIBUTARY
FARMERS
CREEK
MCKELLARS
IVATT ST
GELL ST
BUSBY ST
HEPBURN ST
WESTERN RAILWAY
HASSANS WALLS RD
HASSANS WALLS RD
SHAFT ST
THE AVENUE
FERRO ST
BIRDWOOD ST
HILL RANGE DR
CALERO ST
ALBERT ST
STEPHENSON ST
CRAIGBROOKS ST
DALY ST
CUPRO ST
LAURENCE ST
WRIGHTS ROAD
ACADEMY ST
PARK PDE
ORDNANCE AVE
MALVERN ST
MARTINI PDE
RIFLE PDE
ENFIELD AVE
MUSKET PDE
GREAT WESTERN HWY
GEORGE ST
BARTON ST
MAIN ST
LEE ST
ANDREW ST
CAROLINE AVE
STEWART ST
DAYONES ST
AVERS ST
FINLAY AVE
LONE PINE AVE
SILVIA ST
RABAUL ST
BEAUFORT ST
VICKERS ST
LEMNOS ST
TOBRUK ST
MUNDINGA DR
EAST ST
FIRST ST
WEST ST
120 0 120 240 360
Scale: 1:12,000
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LITHGOW FLOOD STUDY REVIEW
Figure 4.1
(Sheet 2 of 4)
TUFLOW MODEL LAYOUT

JOINS SHEET 2

JOINS SHEET 4

JOINS INSET 1

JOINS MAIN WINDOW

INSET 1

INSET 2

JOINS MAIN WINDOW

JOINS INSET 2

ENDEAVOUR PARK

BOWENFELS

LITHGOW HOSPITAL

SOUTH BOWENFELS

GREAT WESTERN HWY

RAILWAY

WESTERN MAIN

FARMERS CREEK

GOOD LUCK HOLLOW

TRIBUTARY

SOUTH BOWENFELS

ANDREW ST

CARLENE AVE

STEWART ST

TWEED RD

INNES CR

LOCKYER ST

LANDA ST

FIRST ST

EAST ST

WEST ST

GULLAGA AVE

GOOERWULL RD

JAMES O'DONNELL DRIVE

ROBERTSON ST

KIRBY AVE

THORNTON AVE

HILLCREST AVE

GOULBURN DR

GIRRAWAY PL

ROBINIA DR

WOODLANDS DR

KIRKLEY ST

STOCKADE CL

SURVEYORS WAY

MAGPIE HOLLOW RD

TUFLOW BOUNDARY CONDITIONS

- Inflow - Rain Boundary
- Inflow - Point Source
- Outlet (Free Discharge)
- Inflow Boundary
- Outflow (Stage - Discharge)
- Two-Dimensional Model Boundary

TUFLOW ONE-DIMENSIONAL ELEMENT

- Inlet Pit
- Junction Pit
- Headwall
- Box Culvert
- Pipe
- Channel
- DTM Derived Cross Section
- Surveyed Cross Section

N

120 0 120 240 360

Scale: 1:12,000

LEGEND

DPIOW Stream Gauge

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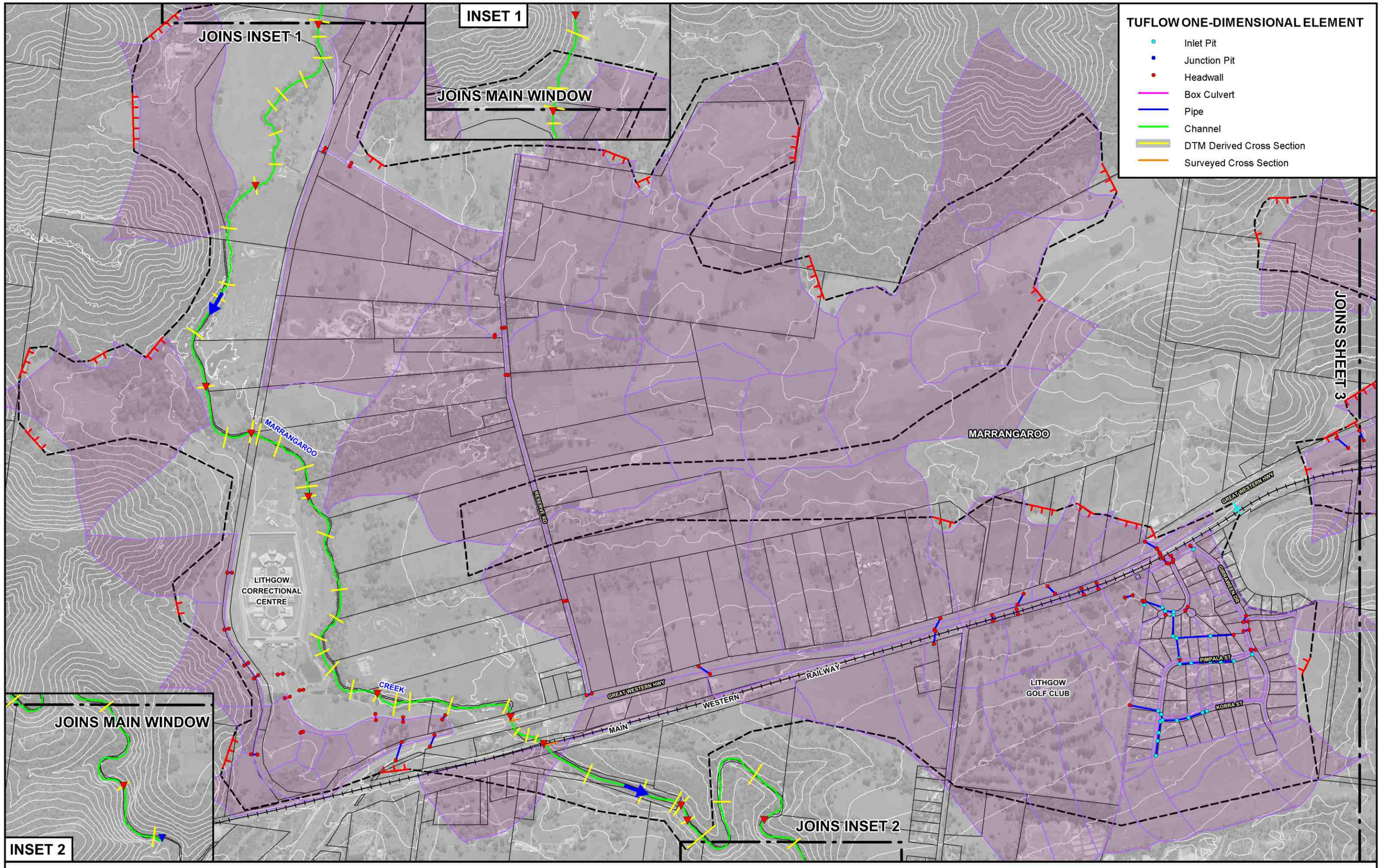
LITHGOW FLOOD STUDY REVIEW

Figure 4.1
(Sheet 3 of 4)

TUFLOW MODEL LAYOUT



N

120 0 120 240 360

Scale: 1:12,000

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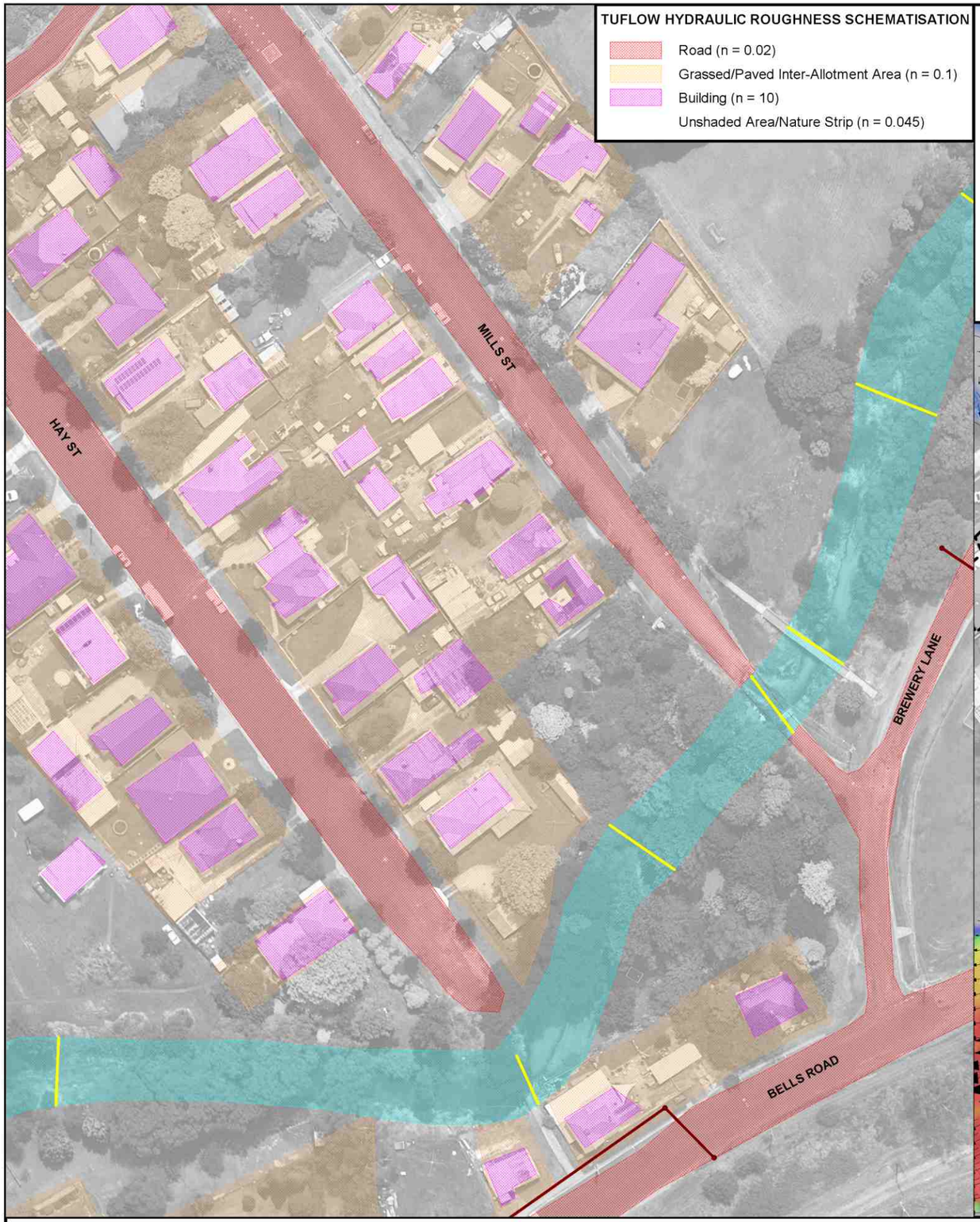
TUFLOW BOUNDARY CONDITIONS

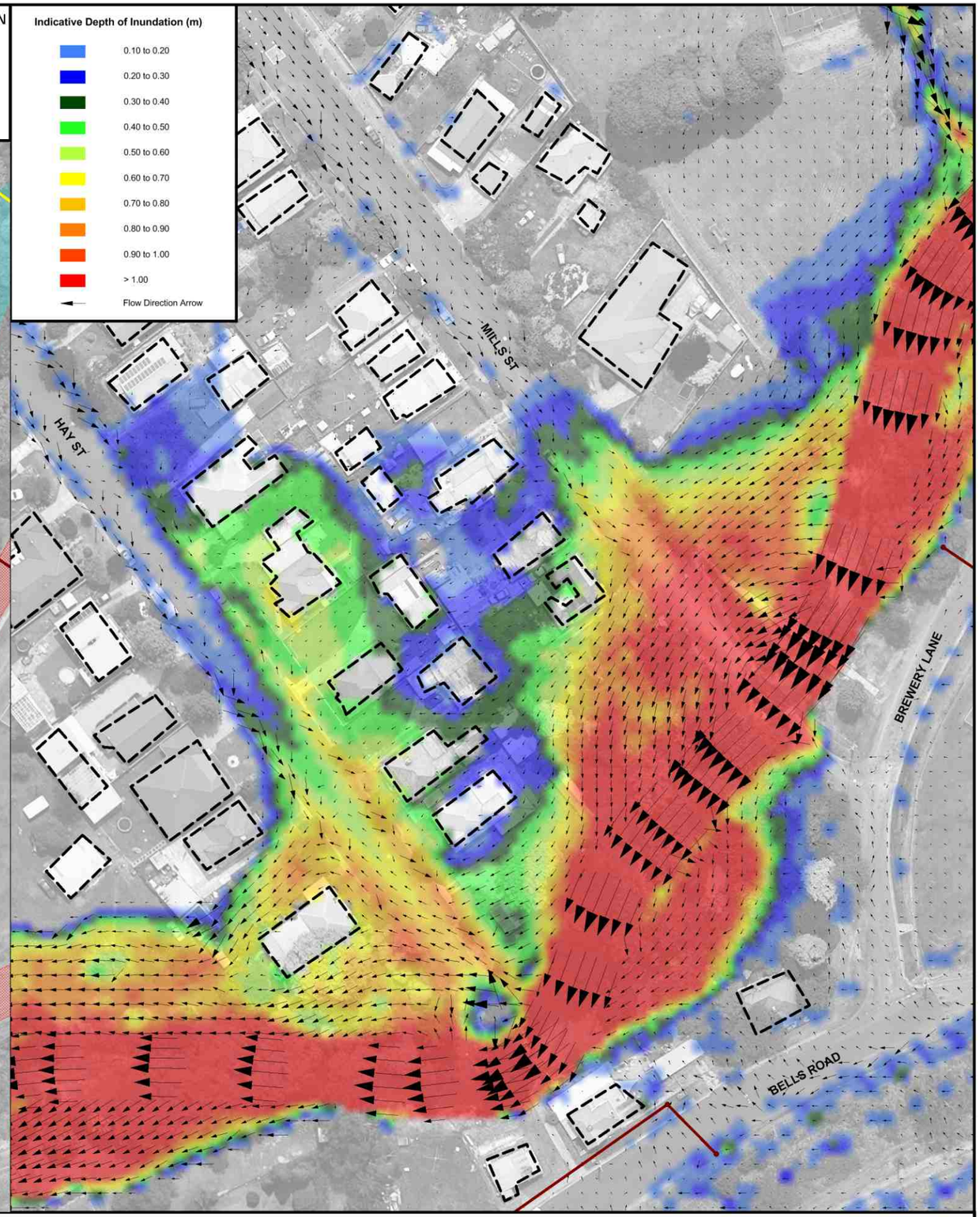
- Inflow - Rain Boundary
- Inflow - Point Source
- Outlet (Free Discharge)
- Inflow Boundary
- Outflow (Stage - Discharge)
- Two-Dimensional Model Boundary

LITHGOW FLOOD STUDY REVIEW

Figure 4.1
(Sheet 4 of 4)

TUFLOW MODEL LAYOUT





N

20 0 20 40 60 m

Scale: 1:2,000

NOTE:
Depths of overland flow less than 0.1m not shown.

LEGEND

- Modelled Stormwater Network
- Building Outlines
- One-Dimensional Cross Section
- One-Dimensional Channel Extent

LITHGOW FLOOD STUDY REVIEW

Figure 4.2

TUFLOW SCHEMATISATION OF FLOODPLAIN

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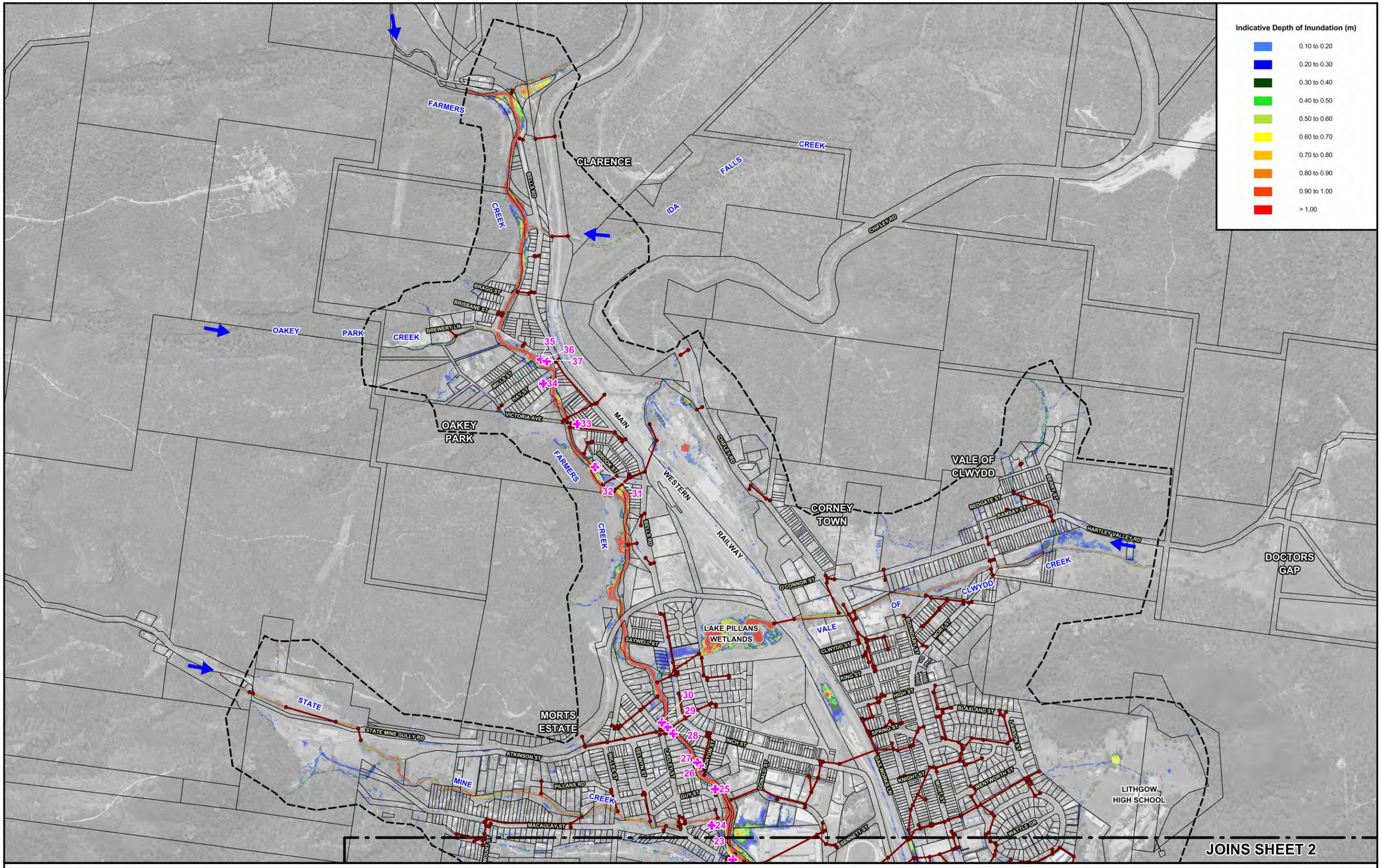

120 0 120 240 360 m

Scale: 1:12,000

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

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- 23 Flood Mark Identifier
- Flood Mark Location

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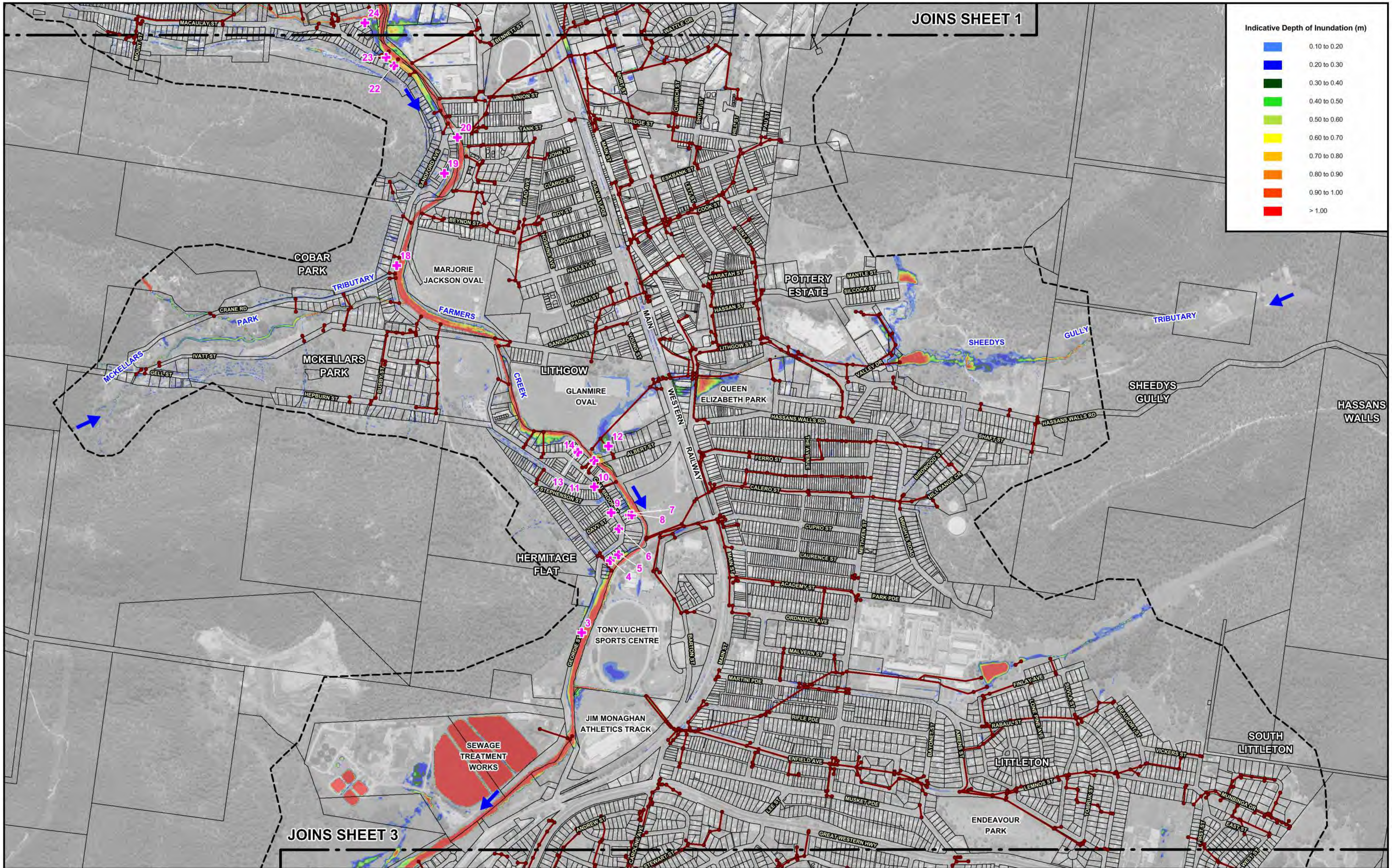
LITHGOW FLOOD STUDY REVIEW

Figure 4.3
(Sheet 1 of 3)

TUFLOW MODEL RESULTS
FEBRUARY 1990 STORM EVENT



120 0 120 240 360 m

Scale: 1:12,000

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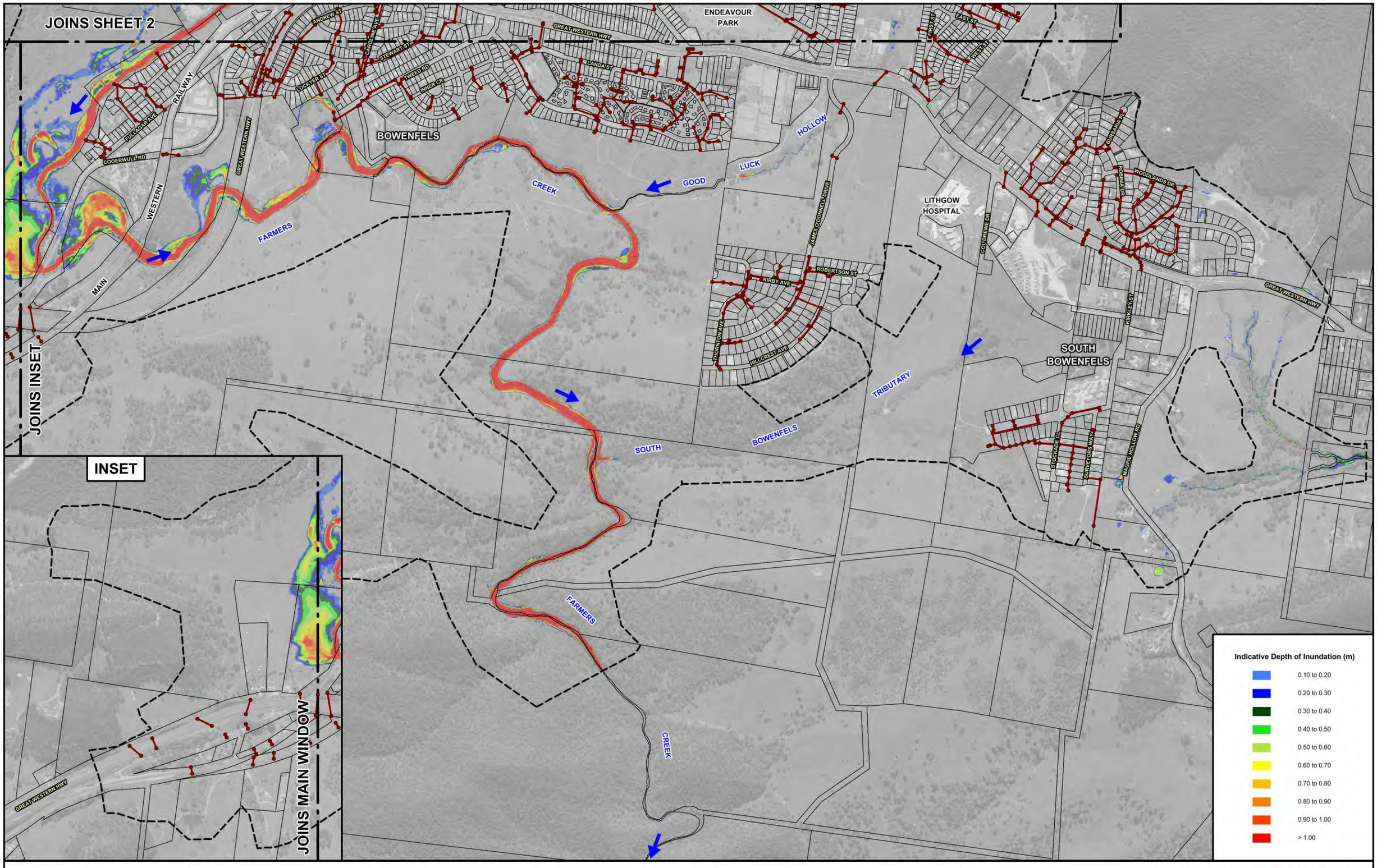
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- 23 Flood Mark Identifier
- Flood Mark Location

LITHGOW FLOOD STUDY REVIEW

Figure 4.3
(Sheet 2 of 3)

TUFLOW MODEL RESULTS
FEBRUARY 1990 STORM EVENT



N

120 0 120 240 360 m

Scale: 1:12,000

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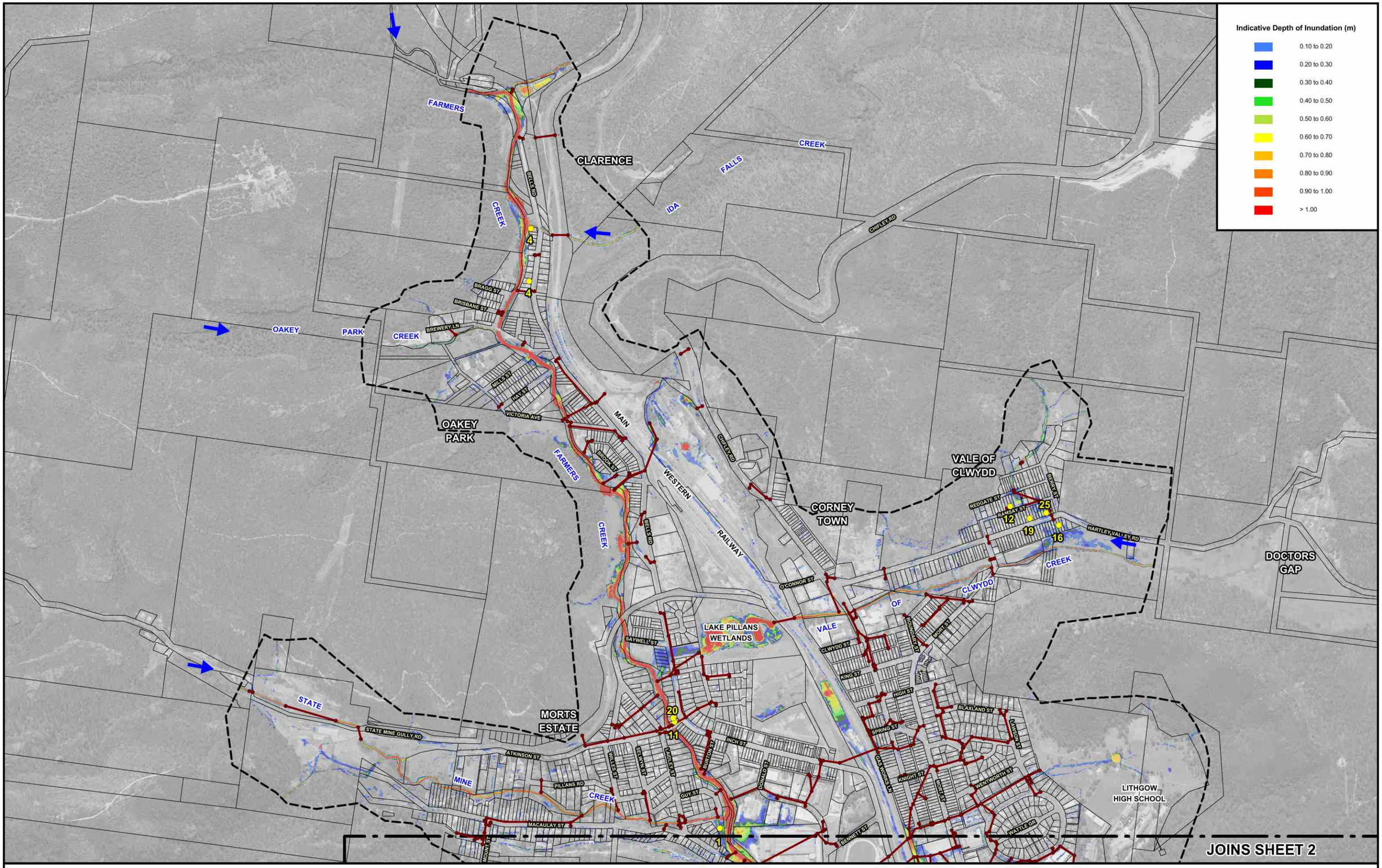
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network

LITHGOW FLOOD STUDY REVIEW

Figure 4.3
(Sheet 3 of 3)

TUFLOW MODEL RESULTS
FEBRUARY 1990 STORM EVENT



120 0 120 240 360 m

Scale: 1:12,000

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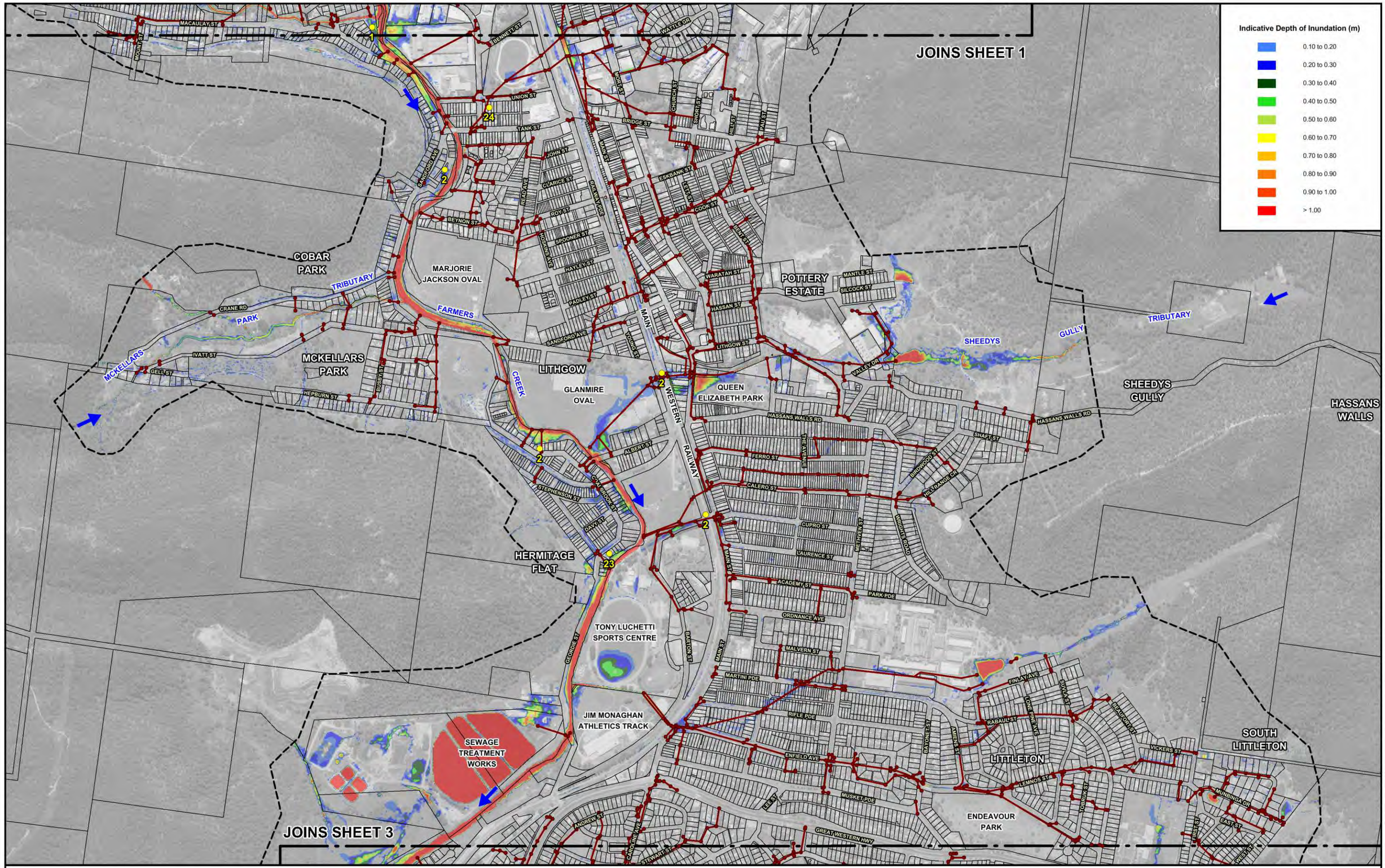
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- 25 Questionnaire Response Identifier
- Questionnaire Response Location

LITHGOW FLOOD STUDY REVIEW

Figure 4.4
(Sheet 1 of 3)

TUFLOW MODEL RESULTS
FEBRUARY 2013 STORM EVENT



120 0 120 240 360 m

Scale: 1:12,000

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LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- 23 Questionnaire Response Identifier
- Questionnaire Response Location

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LITHGOW FLOOD STUDY REVIEW

Figure 4.4
(Sheet 2 of 3)

TUFLOW MODEL RESULTS
FEBRUARY 2013 STORM EVENT

JOINS SHEET 2

JOINS INSET

INSET

JOINS MAIN WINDOW

ENDEAVOUR PARK

BOWENFELS

LITHGOW HOSPITAL

SOUTH BOWENFELS

GREAT WESTERN HWY

ANDREW ST

CARROLL AVE

STEWART ST

TWEED RD

INNES CR

LANDA ST

LOCKYER ST

EAST ST

WEST ST

RAILWAY

FULLAGAR AVE

COOERWULL RD

WESTERN

MAIN

FARMERS

CREEK

GOOD

LUCK

HOLLOW

TRIBUTARY

SOUTH

BOWENFELS

JAMES O'DONNELL DRIVE

ROBERTSON ST

KIRBY AVE

THORNTON AVE

HILLCREST AVE

COLYDREW DR

CURSHAM PL

ROBINA DR

WOODLANDS DR

KIRKLEY ST

STOCKADE CT

SURREY PARK WAY

MAGPIE HOLLOW RD

5

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

N

120 0 120 240 360 m

Scale: 1:12,000

NOTE:

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LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- 5 Questionnaire Response Identifier
- Questionnaire Response Location

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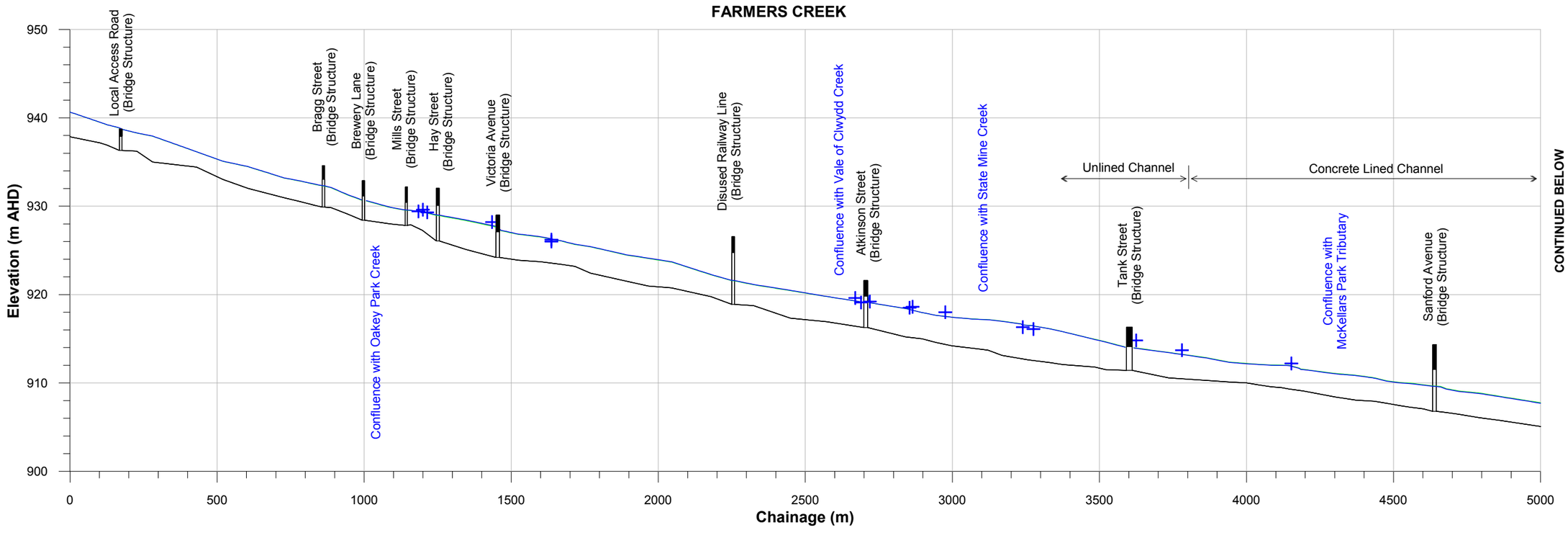
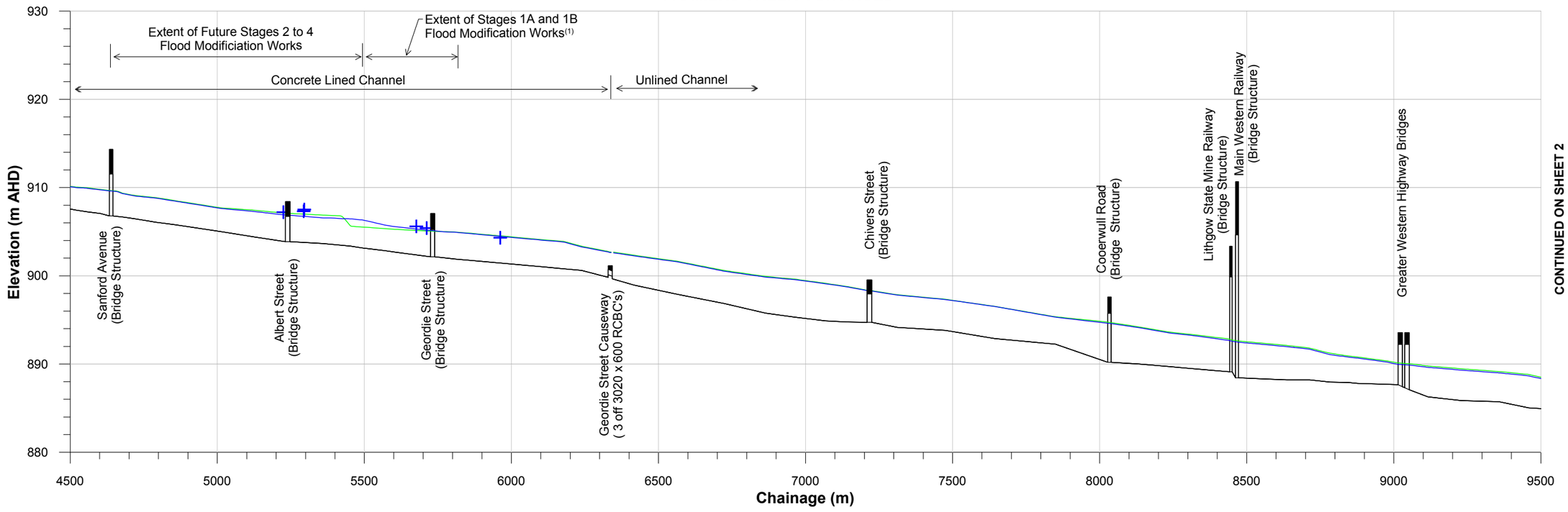
LITHGOW FLOOD STUDY REVIEW

Figure 4.4
(Sheet 3 of 3)

TUFLOW MODEL RESULTS
FEBRUARY 2013 STORM EVENT





LEGEND

February 1990 Flood Mark

February 1990

February 2013

NOTE:

1. Flood modification measure not built during February 1990 Flood.

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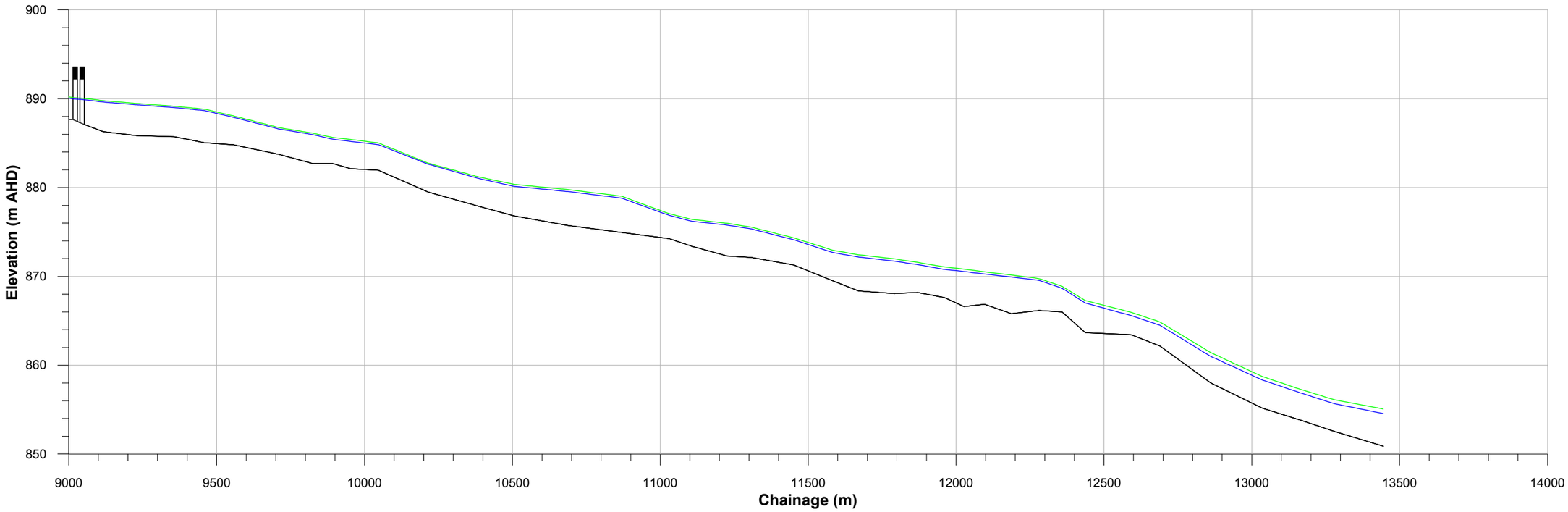
LITHGOW FLOOD STUDY REVIEW

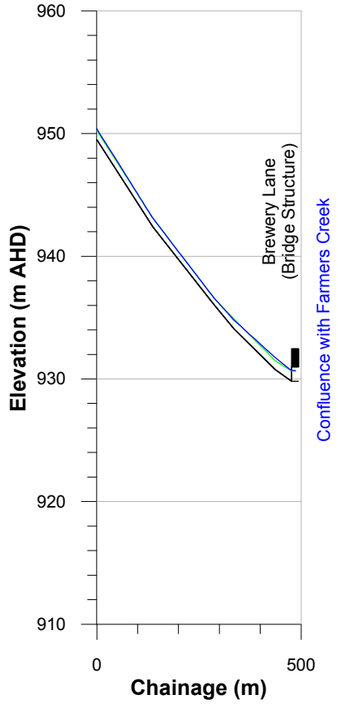
Figure 4.5
(Sheet 1 of 3)

WATER SURFACE PROFILES
HISTORIC STORM EVENTS

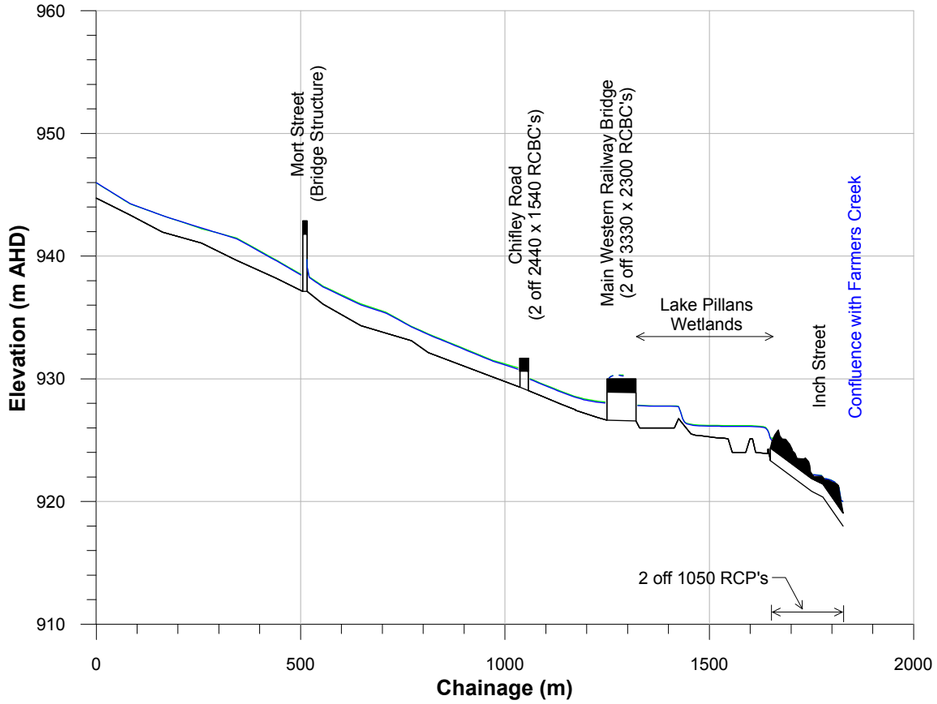
FARMERS CREEK CONTINUED



OAKEY PARK CREEK



VALE OF CLWYDD CREEK



LEGEND

February 1990

February 2013

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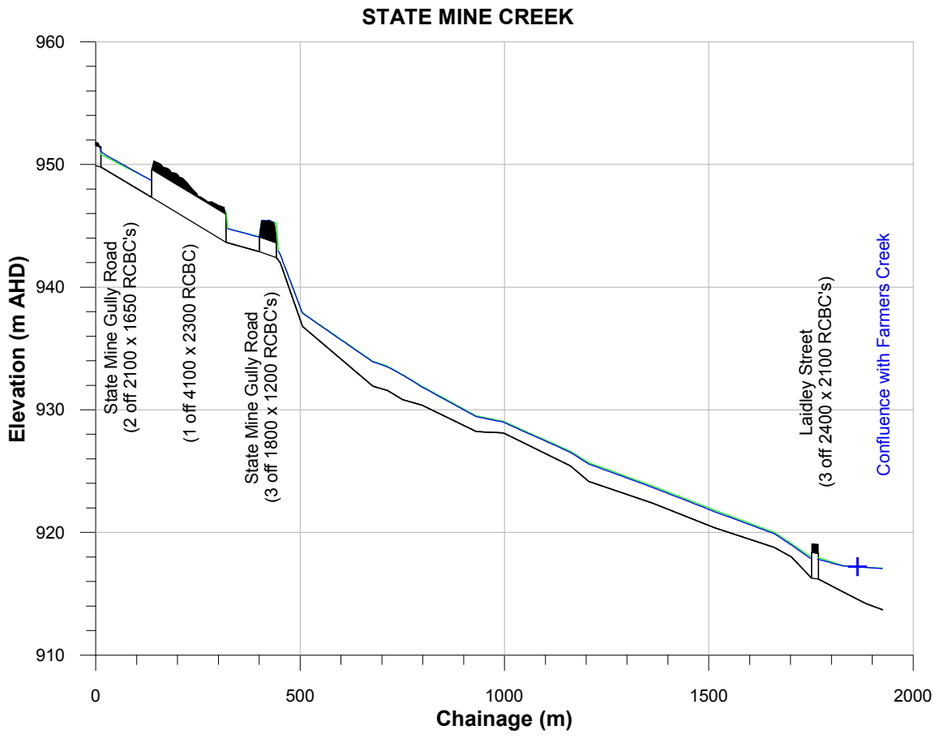
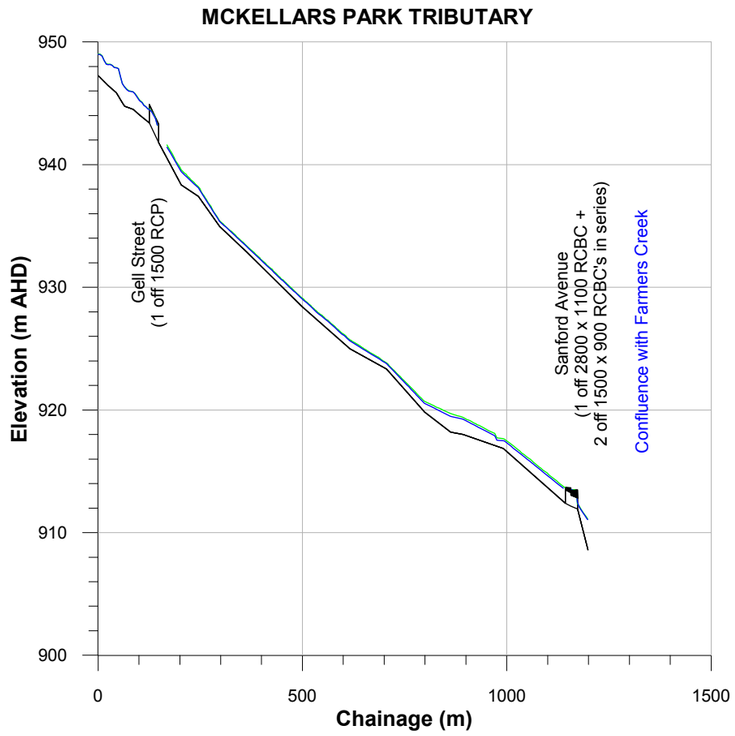
LITHGOW FLOOD STUDY REVIEW

Figure 4.5
(Sheet 2 of 3)

WATER SURFACE PROFILES
HISTORIC STORM EVENTS





LEGEND

+ + + February 1990 Flood Mark

February 1990

February 2013

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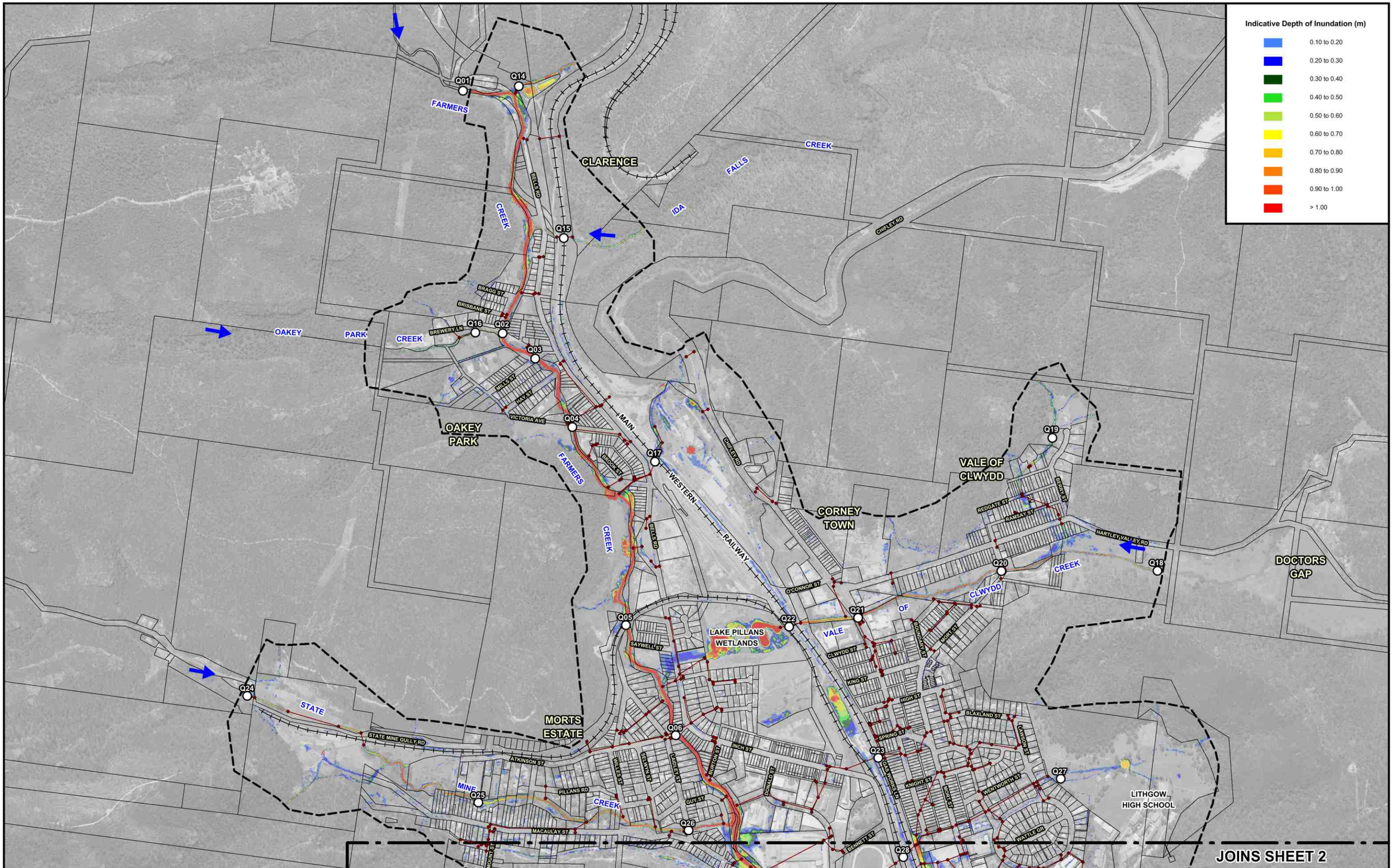
LITHGOW FLOOD STUDY REVIEW

Figure 4.5
(Sheet 3 of 3)

WATER SURFACE PROFILES
HISTORIC STORM EVENTS



120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

NOTE:

The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3m 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

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Q01 Peak Flow Location and Identifier (Refer Appendix F)

LITHGOW FLOOD STUDY REVIEW

Figure 6.1
(Sheet 1 of 4)

TUFLOW MODEL RESULTS
5 YEAR ARI

120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

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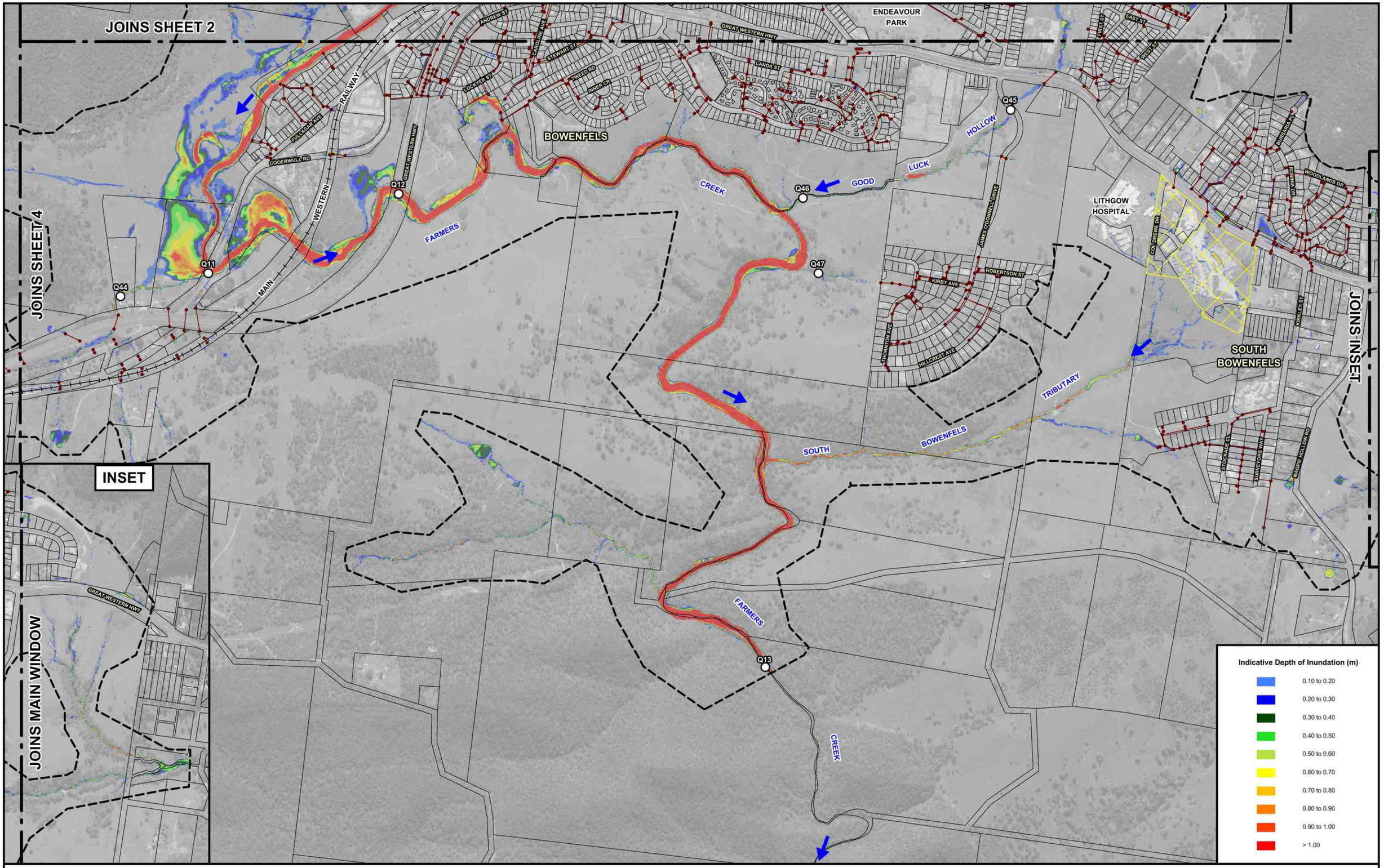
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Q08 Peak Flow Location and Identifier (Refer Appendix F)

LITHGOW FLOOD STUDY REVIEW

Figure 6.1
(Sheet 2 of 4)

TUFLOW MODEL RESULTS
5 YEAR ARI



120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

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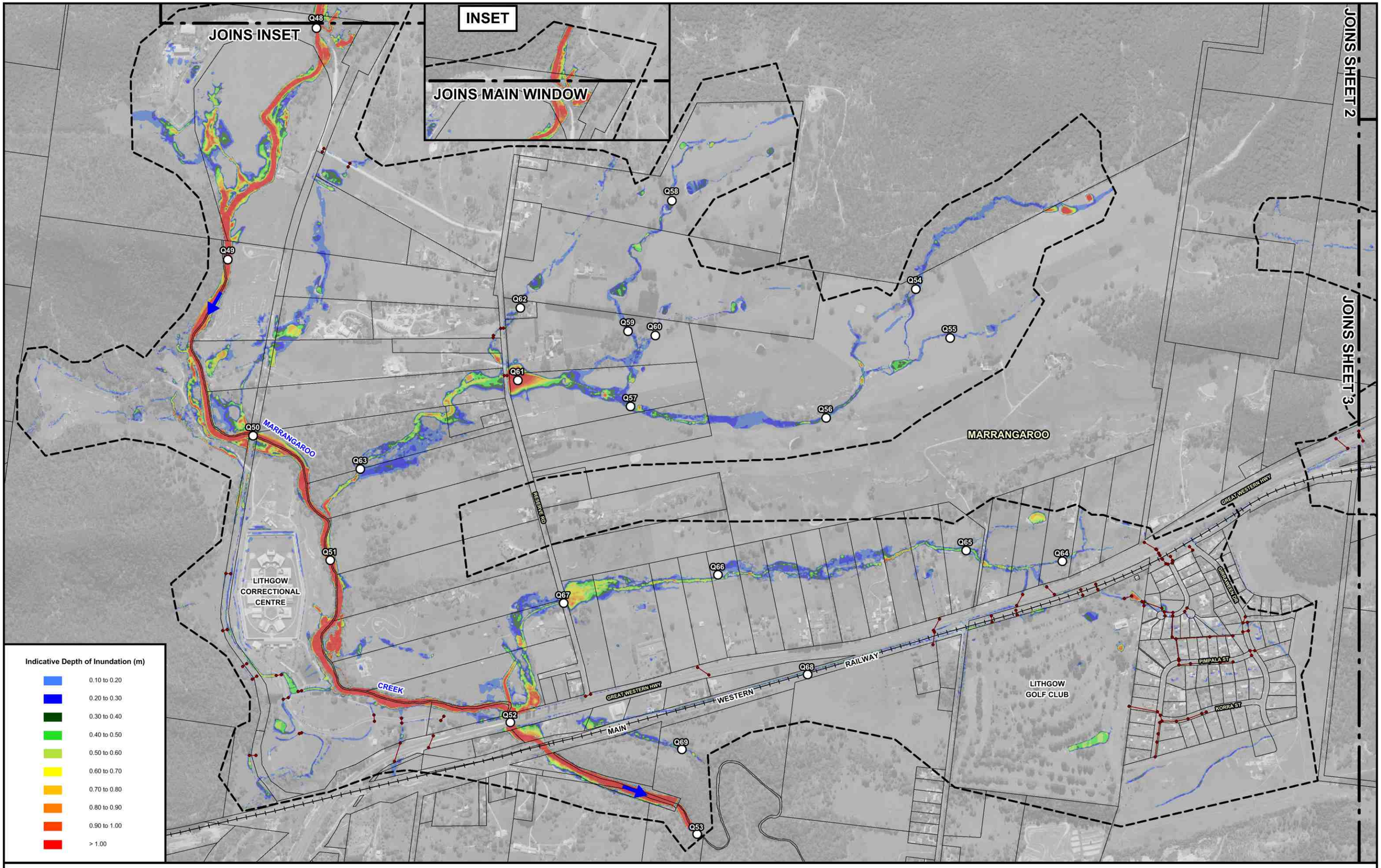
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Q11 Peak Flow Location and Identifier (Refer Appendix F)
- Extent of Recent Subdivision Development. Details of New Stormwater Drainage System have not been Incorporated in Farmers Creek TUFLOW Model.

LITHGOW FLOOD STUDY REVIEW

Figure 6.1
(Sheet 3 of 4)

TUFLOW MODEL RESULTS
5 YEAR ARI



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LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Q50 Peak Flow Location and Identifier (Refer Appendix F)

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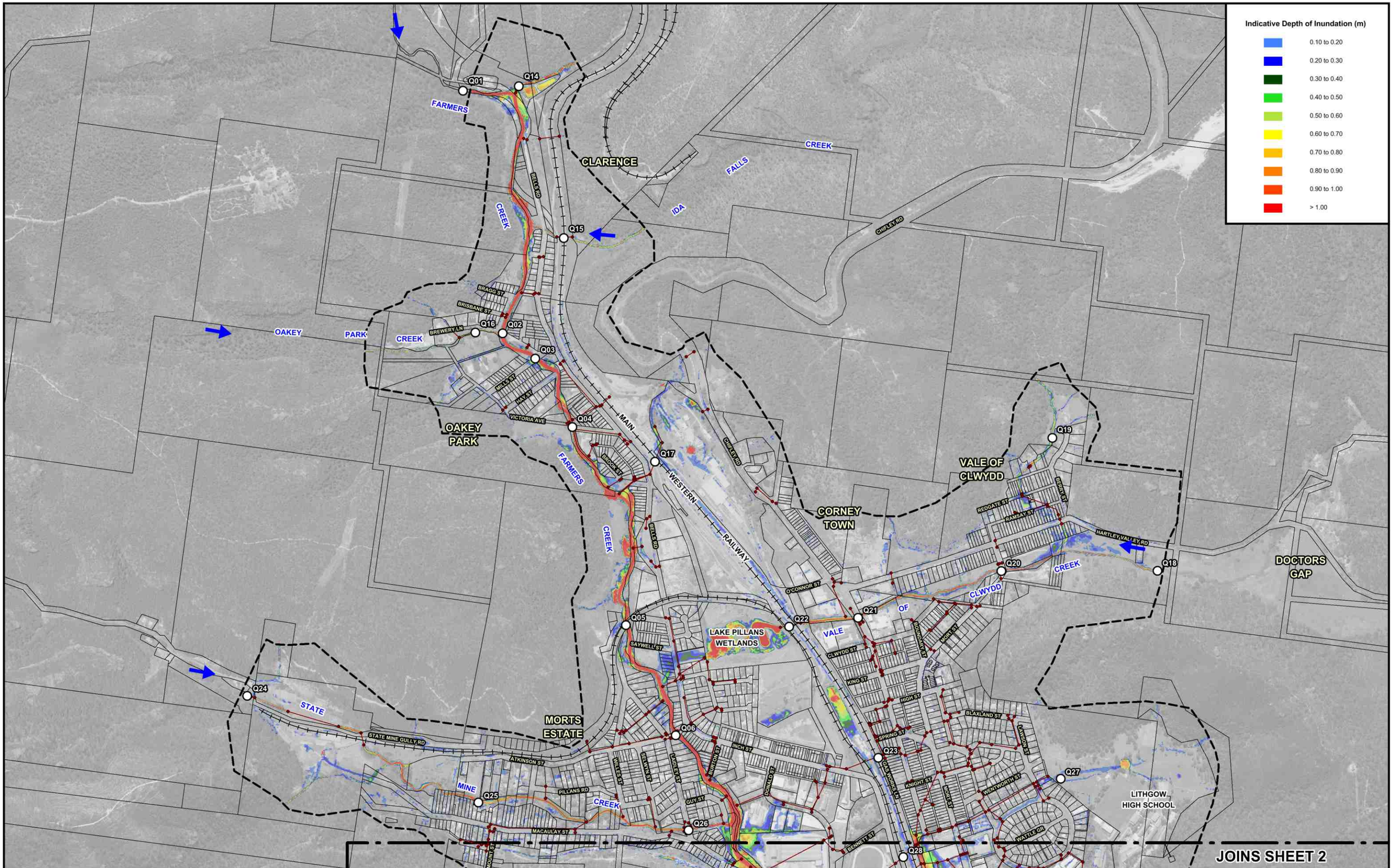
LITHGOW FLOOD STUDY REVIEW

Figure 6.1
(Sheet 4 of 4)

TUFLOW MODEL RESULTS
5 YEAR ARI



120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

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LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Q01 Peak Flow Location and Identifier (Refer Appendix F)

LITHGOW FLOOD STUDY REVIEW

Figure 6.2
(Sheet 1 of 4)

TUFLOW MODEL RESULTS
10 YEAR ARI

120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

NOTE:

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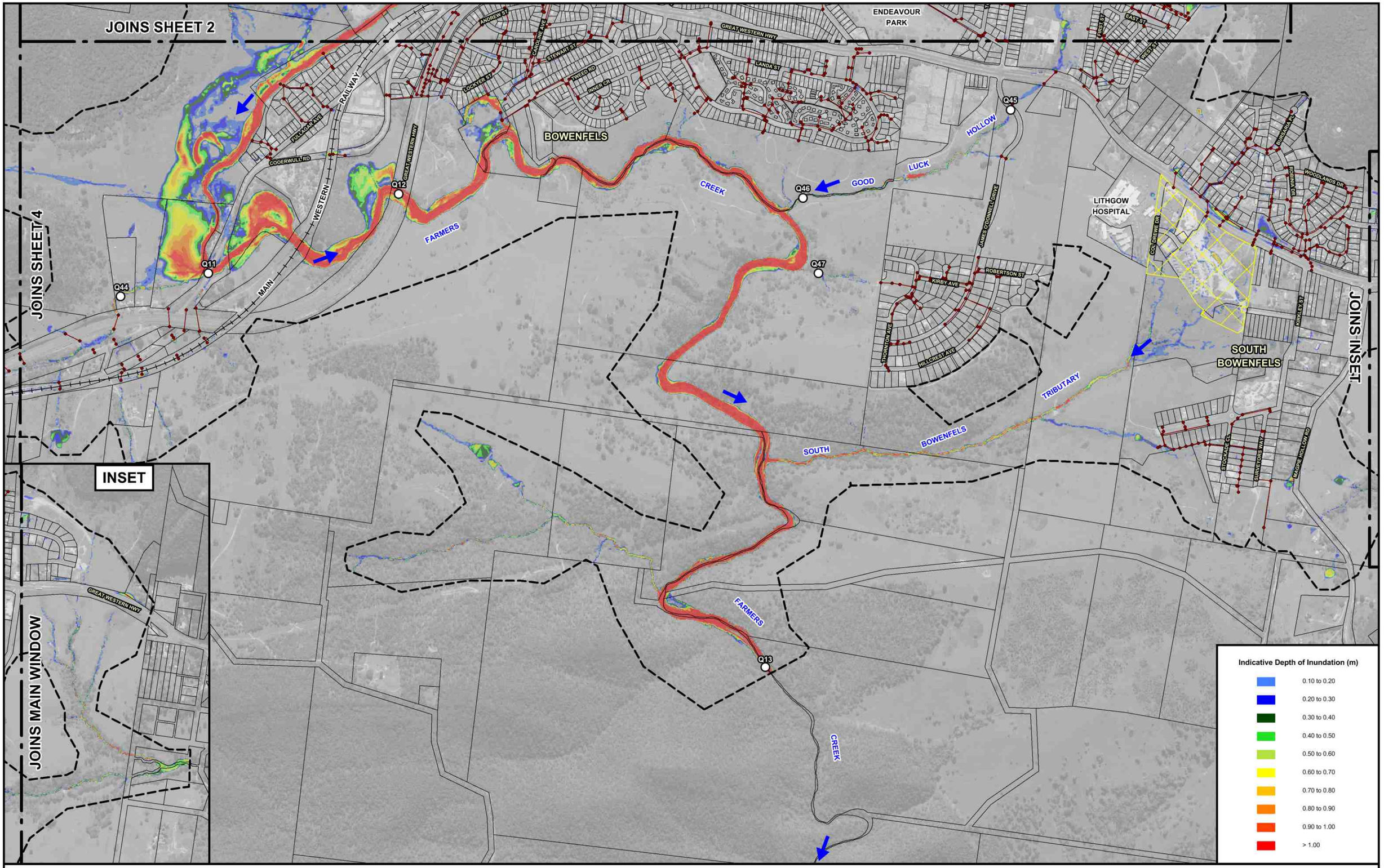
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Q08 Peak Flow Location and Identifier (Refer Appendix F)

LITHGOW FLOOD STUDY REVIEW

Figure 6.2
(Sheet 2 of 4)

TUFLOW MODEL RESULTS
10 YEAR ARI



120 0 120 240 360 m

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Lyall & Associates

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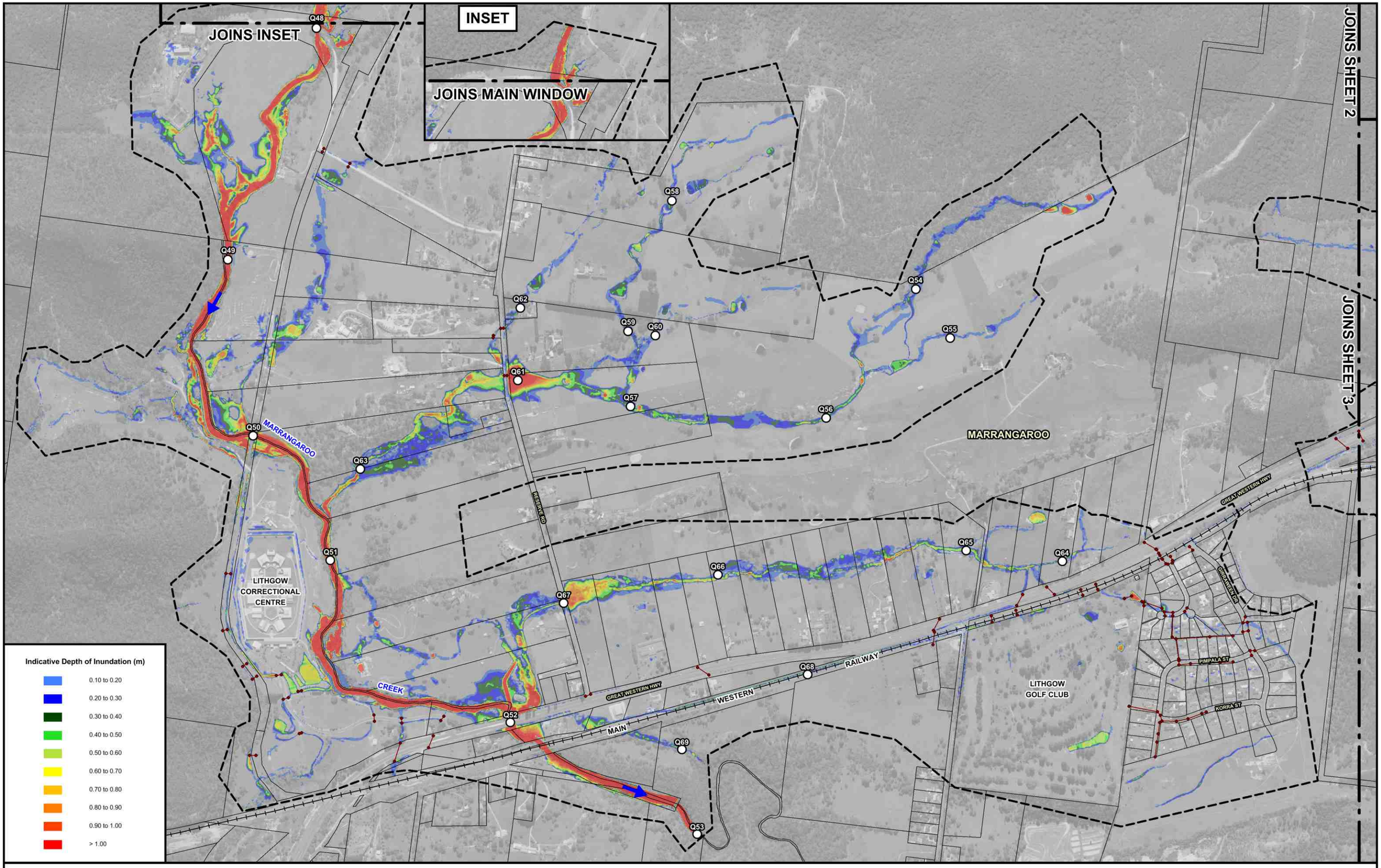
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Q11 Peak Flow Location and Identifier (Refer Appendix F)
- Extent of Recent Subdivision Development. Details of New Stormwater Drainage System have not been Incorporated in Farmers Creek TUFLOW Model.

LITHGOW FLOOD STUDY REVIEW

Figure 6.2
(Sheet 3 of 4)

TUFLOW MODEL RESULTS
10 YEAR ARI



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LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Q50 Peak Flow Location and Identifier (Refer Appendix F)

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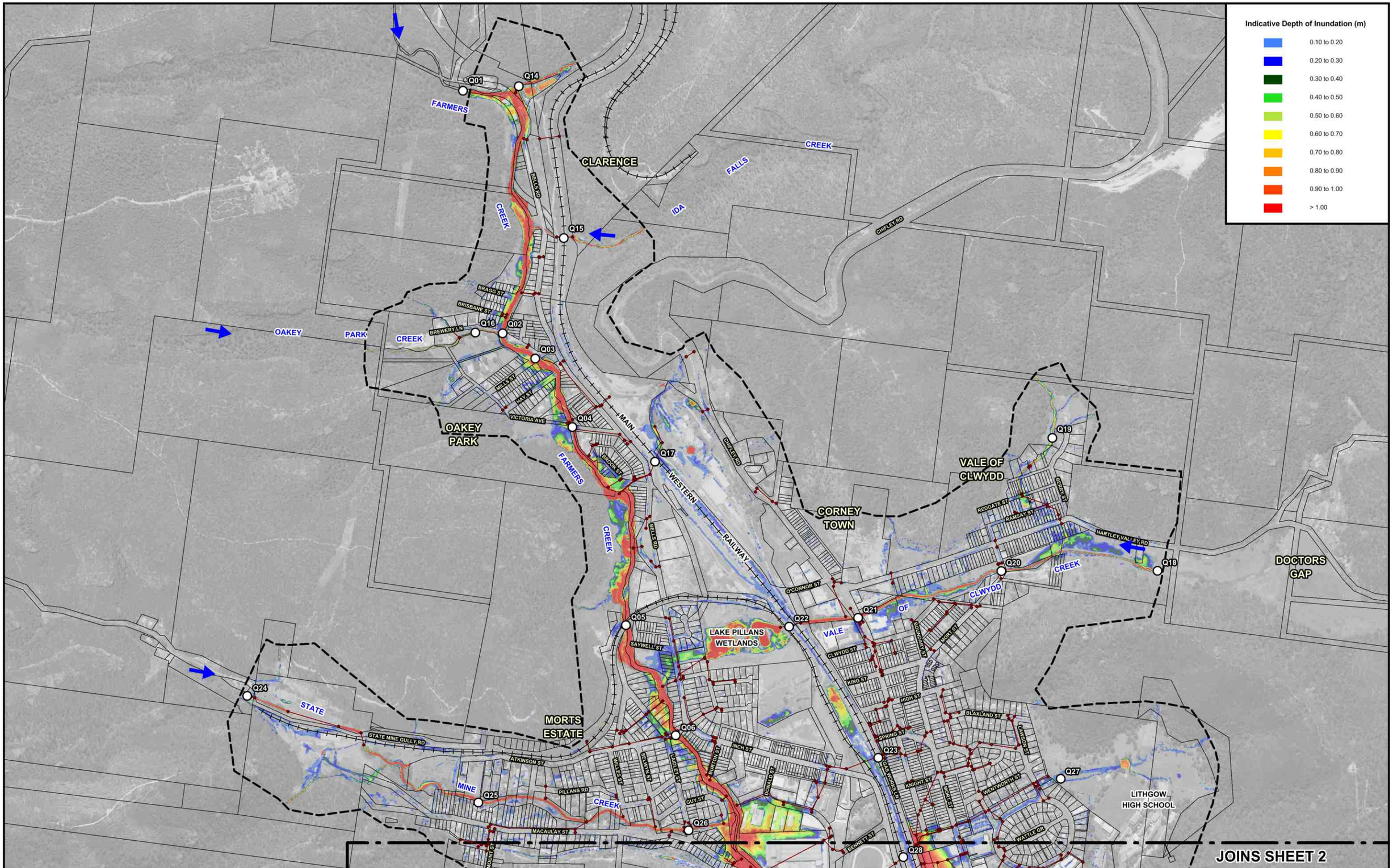
LITHGOW FLOOD STUDY REVIEW

Figure 6.2
(Sheet 4 of 4)

TUFLOW MODEL RESULTS
10 YEAR ARI



120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

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LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Q01 Peak Flow Location and Identifier (Refer Appendix F)

LITHGOW FLOOD STUDY REVIEW

Figure 6.3
(Sheet 1 of 4)

TUFLOW MODEL RESULTS
50 YEAR ARI

120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

NOTE:

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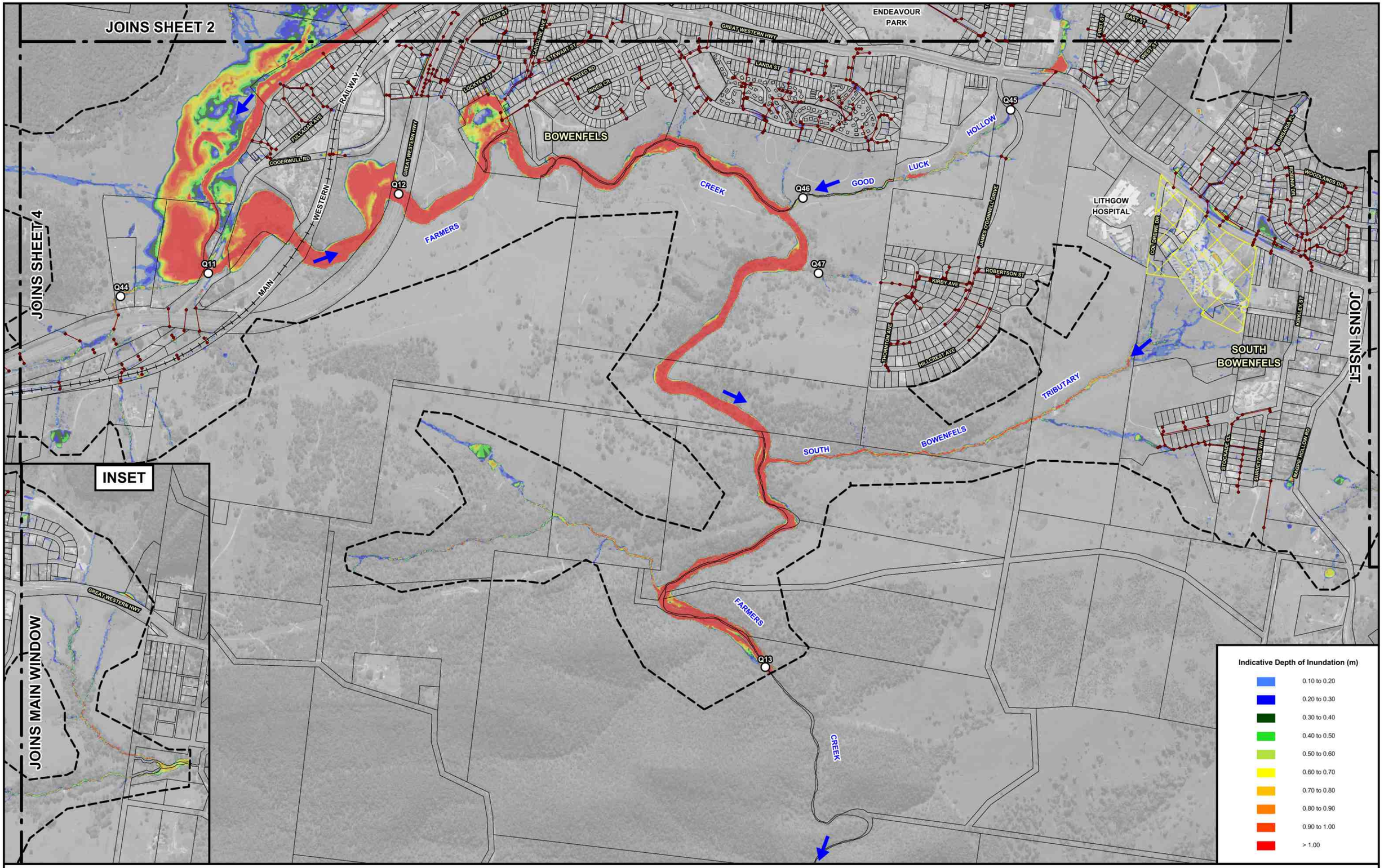
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Q08 Peak Flow Location and Identifier (Refer Appendix F)

LITHGOW FLOOD STUDY REVIEW

Figure 6.3
(Sheet 2 of 4)

TUFLOW MODEL RESULTS
50 YEAR ARI



120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

NOTE:

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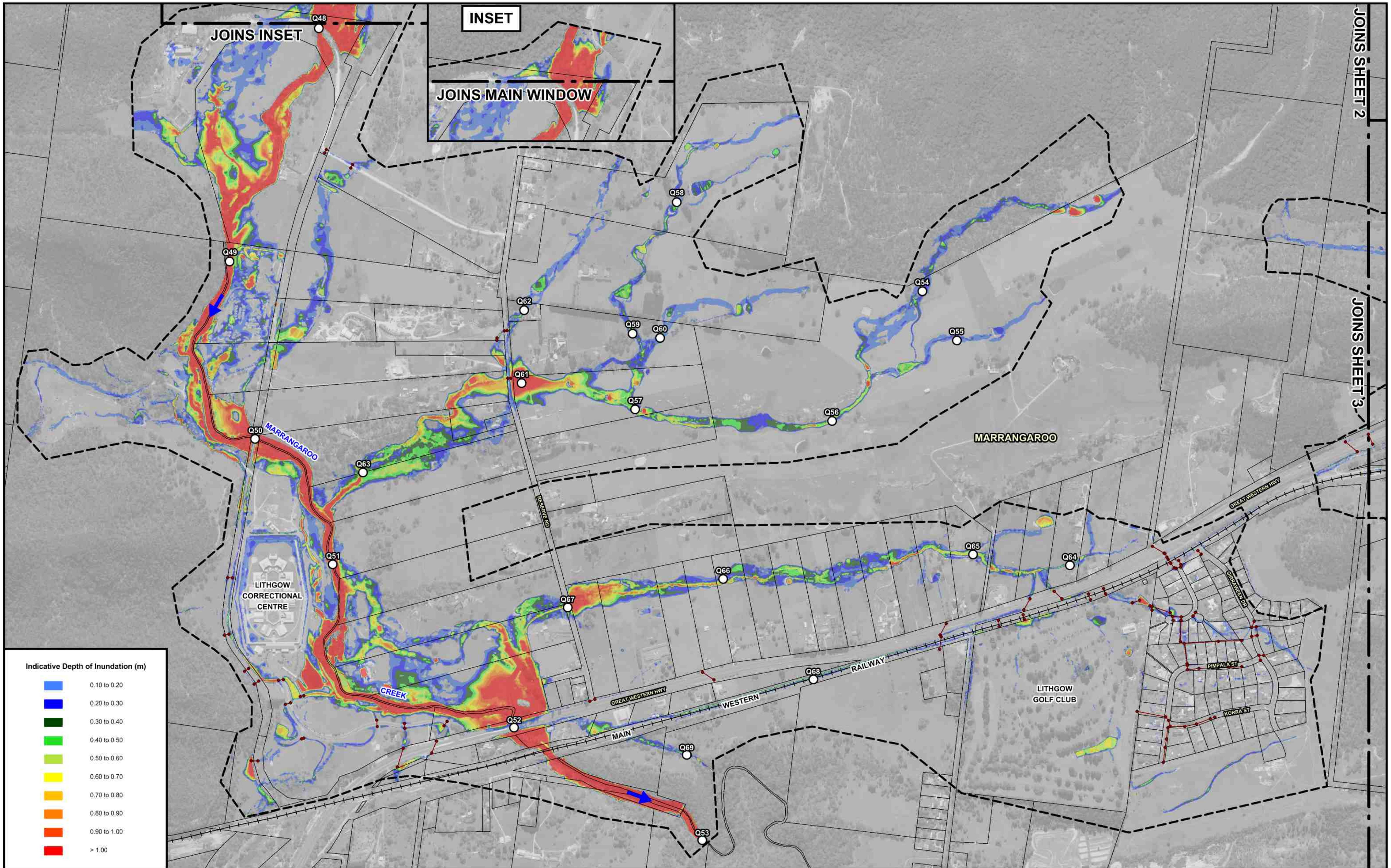
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Q11 Peak Flow Location and Identifier (Refer Appendix F)
- Extent of Recent Subdivision Development. Details of New Stormwater Drainage System have not been Incorporated in Farmers Creek TUFLOW Model.

LITHGOW FLOOD STUDY REVIEW

Figure 6.3
(Sheet 3 of 4)

TUFLOW MODEL RESULTS
50 YEAR ARI



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LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Q50 Peak Flow Location and Identifier (Refer Appendix F)

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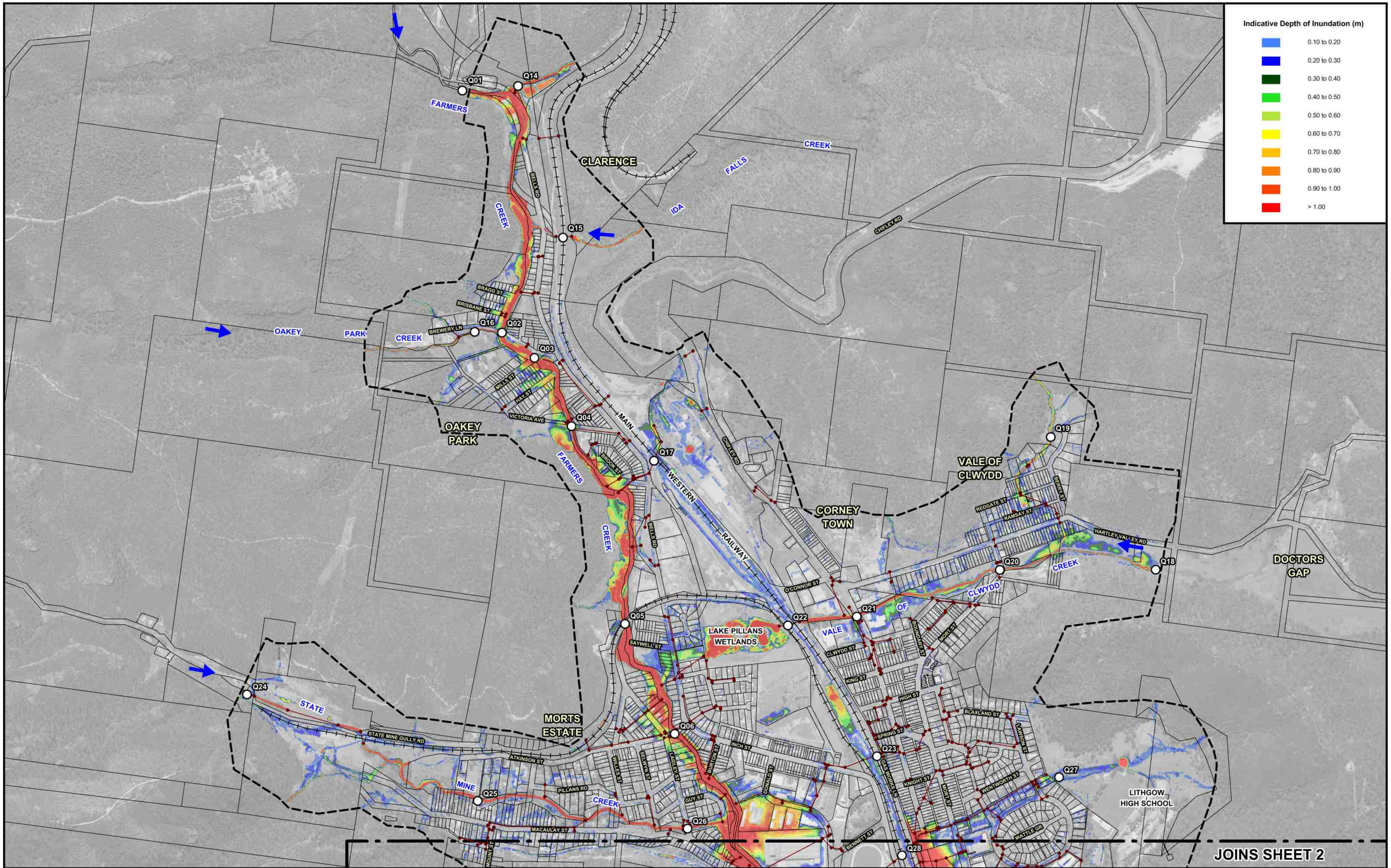
LITHGOW FLOOD STUDY REVIEW

Figure 6.3
(Sheet 4 of 4)

TUFLOW MODEL RESULTS
50 YEAR ARI


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
FARMERS CREEK
CLARENCE
FALLS CREEK
IDA
OAKEY PARK CREEK
OAKEY PARK
VALE OF CLWYDD
CORNEY TOWN
DOCTORS GAP
LAKE PILLANS WETLANDS
MORTS ESTATE
STATE MINE CREEK
VALE OF CLWYDD CREEK
LITHGOW HIGH SCHOOL
MAIN WESTERN RAILWAY
BELLS RD
CHIFLEY RD
HARTLEY VALLEY RD
STATE MINE GULLY RD
ATKINSON ST
PILLANS RD
MACAULAY ST
VICTORIA AVE
BREWERY LN
BRISBANE ST
BRAGG ST
MILLS ST
HAY ST
BROOK ST
O'CONNOR ST
SAYWELL ST
CLWYDD ST
KING ST
HIGH ST
BLAXLAND ST
SPRING ST
INCH ST
GUY ST
BENNETT ST
WENTWORTH ST
WATTLE GR
REDGATE ST
RAMSAY ST
Q01
Q02
Q03
Q04
Q05
Q06
Q14
Q15
Q16
Q17
Q18
Q19
Q20
Q21
Q22
Q23
Q24
Q25
Q26
Q27
Q28
JOINS SHEET 2

120 0 120 240 360 m

Scale: 1:12,000

NOTE:

The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3m 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

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Q01 Peak Flow Location and Identifier (Refer Appendix F)

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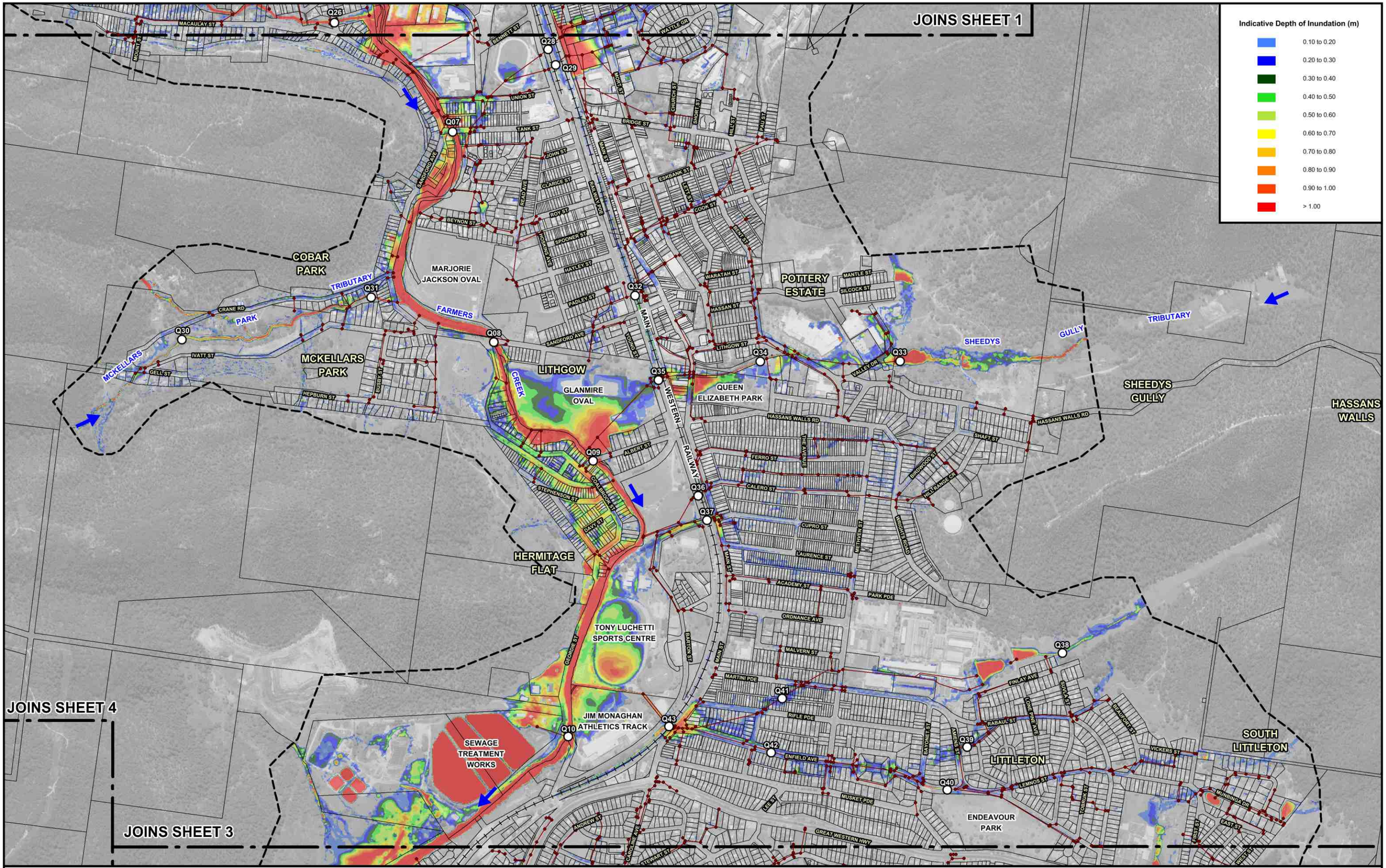
LITHGOW FLOOD STUDY REVIEW

Figure 6.4
(Sheet 1 of 4)

TUFLOW MODEL RESULTS
100 YEAR ARI



120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

NOTE:

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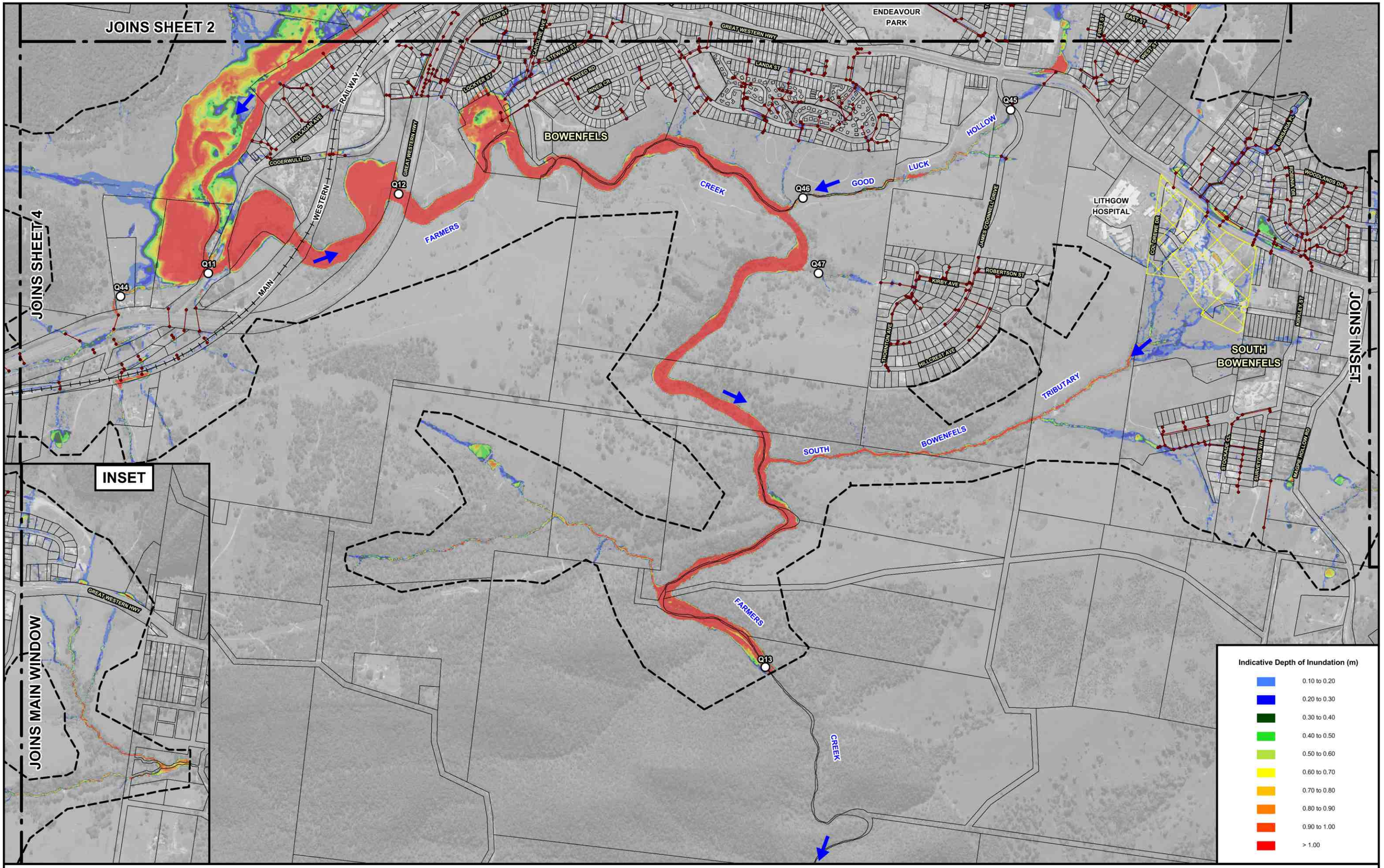
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Q08 Peak Flow Location and Identifier (Refer Appendix F)

LITHGOW FLOOD STUDY REVIEW

Figure 6.4
(Sheet 2 of 4)

TUFLOW MODEL RESULTS
100 YEAR ARI



120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

NOTE:

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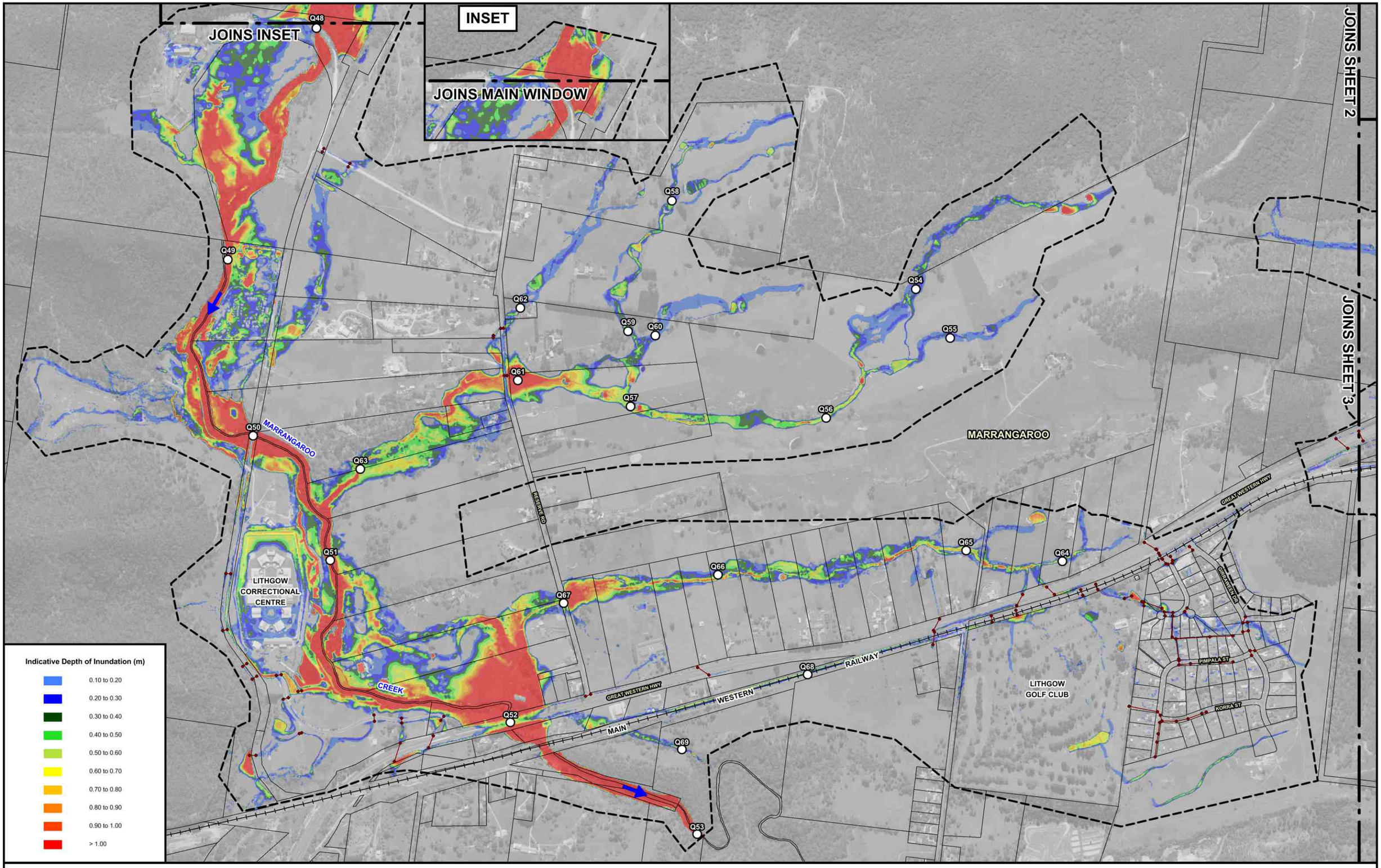
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Q11 Peak Flow Location and Identifier (Refer Appendix F)
- Extent of Recent Subdivision Development. Details of New Stormwater Drainage System have not been Incorporated in Farmers Creek TUFLOW Model.

LITHGOW FLOOD STUDY REVIEW

Figure 6.4
(Sheet 3 of 4)

TUFLOW MODEL RESULTS
100 YEAR ARI



Lyall & Associates

NOTE:

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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

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Q50 Peak Flow Location and Identifier (Refer Appendix F)

LITHGOW FLOOD STUDY REVIEW

Figure 6.4
(Sheet 4 of 4)

TUFLOW MODEL RESULTS
100 YEAR ARI

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

JOINS SHEET 2

120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

NOTE:

The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3m grid and does notnnecessarily incorporate localised features which can influence flooding behaviour in individual allotments.

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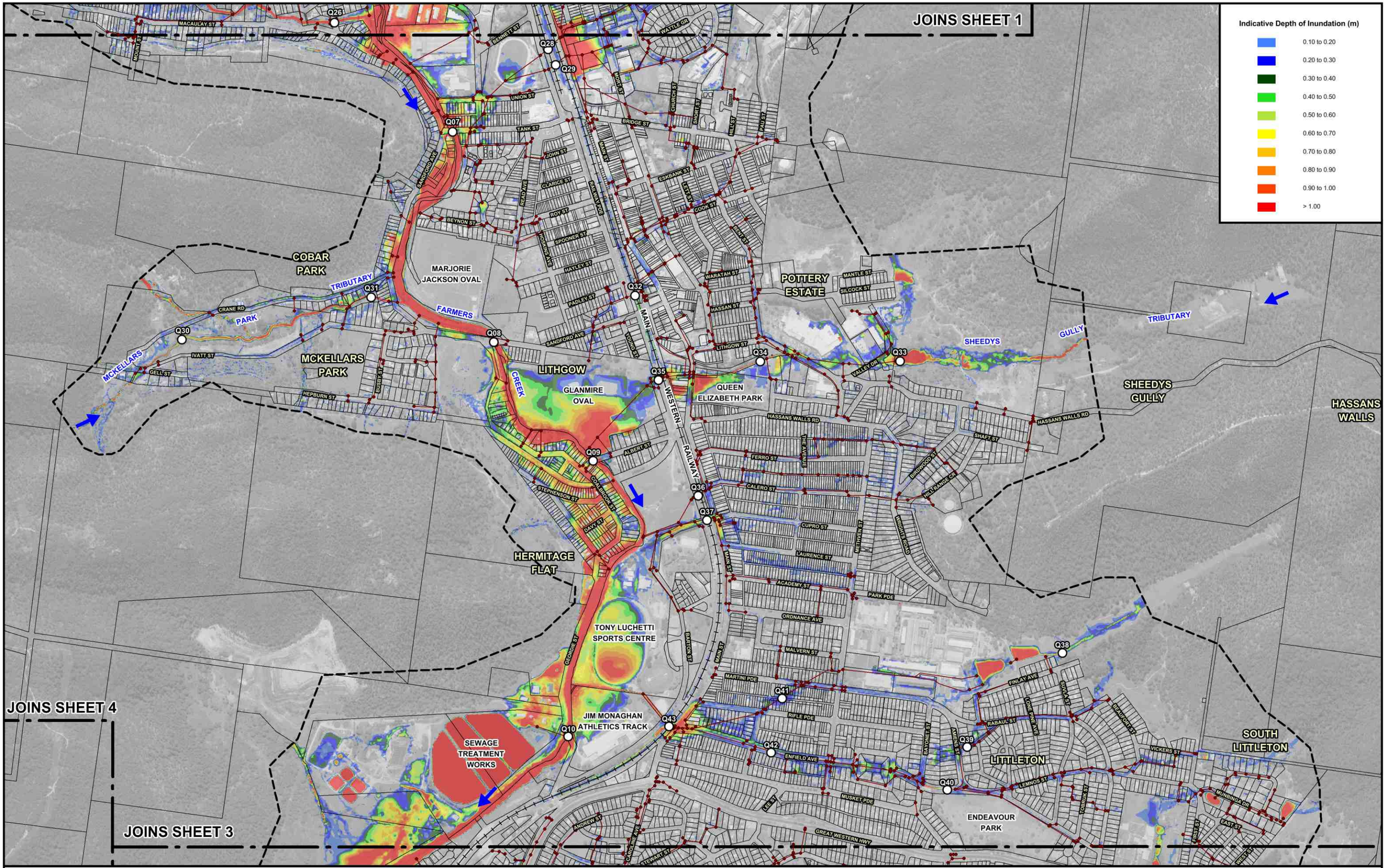
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Q01 Peak Flow Location and Identifier (Refer Appendix F)

LITHGOW FLOOD STUDY REVIEW

Figure 6.5
(Sheet 1 of 4)

TUFLOW MODEL RESULTS
200 YEAR ARI



120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

NOTE:

The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3m grid and does notnnecessarily incorporate localised features which can influence flooding behaviour in individual allotments.

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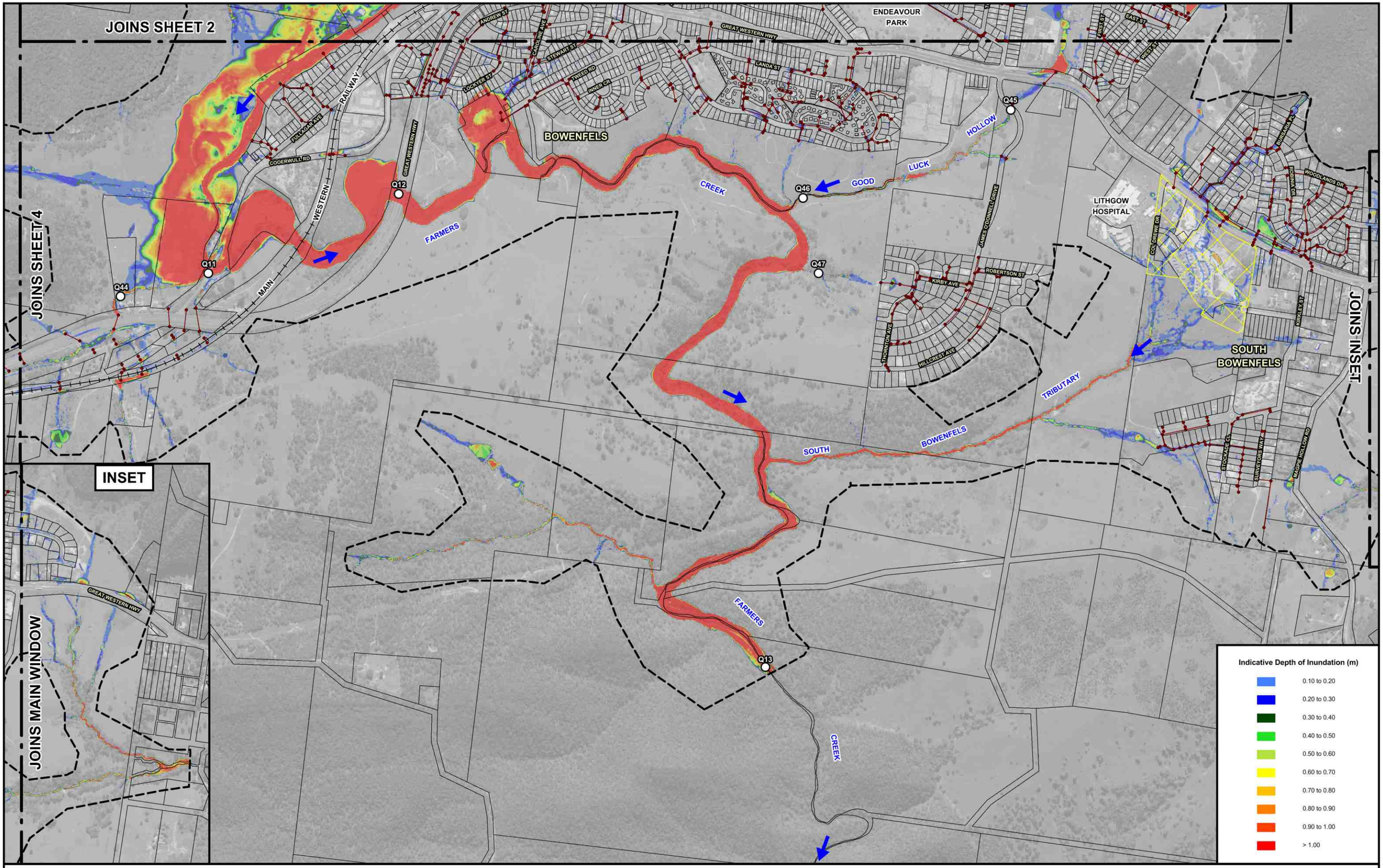
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Q08 Peak Flow Location and Identifier (Refer Appendix F)

LITHGOW FLOOD STUDY REVIEW

Figure 6.5
(Sheet 2 of 4)

TUFLOW MODEL RESULTS
200 YEAR ARI



120 0 120 240 360 m

Scale: 1:12,000

NOTE:

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LEGEND

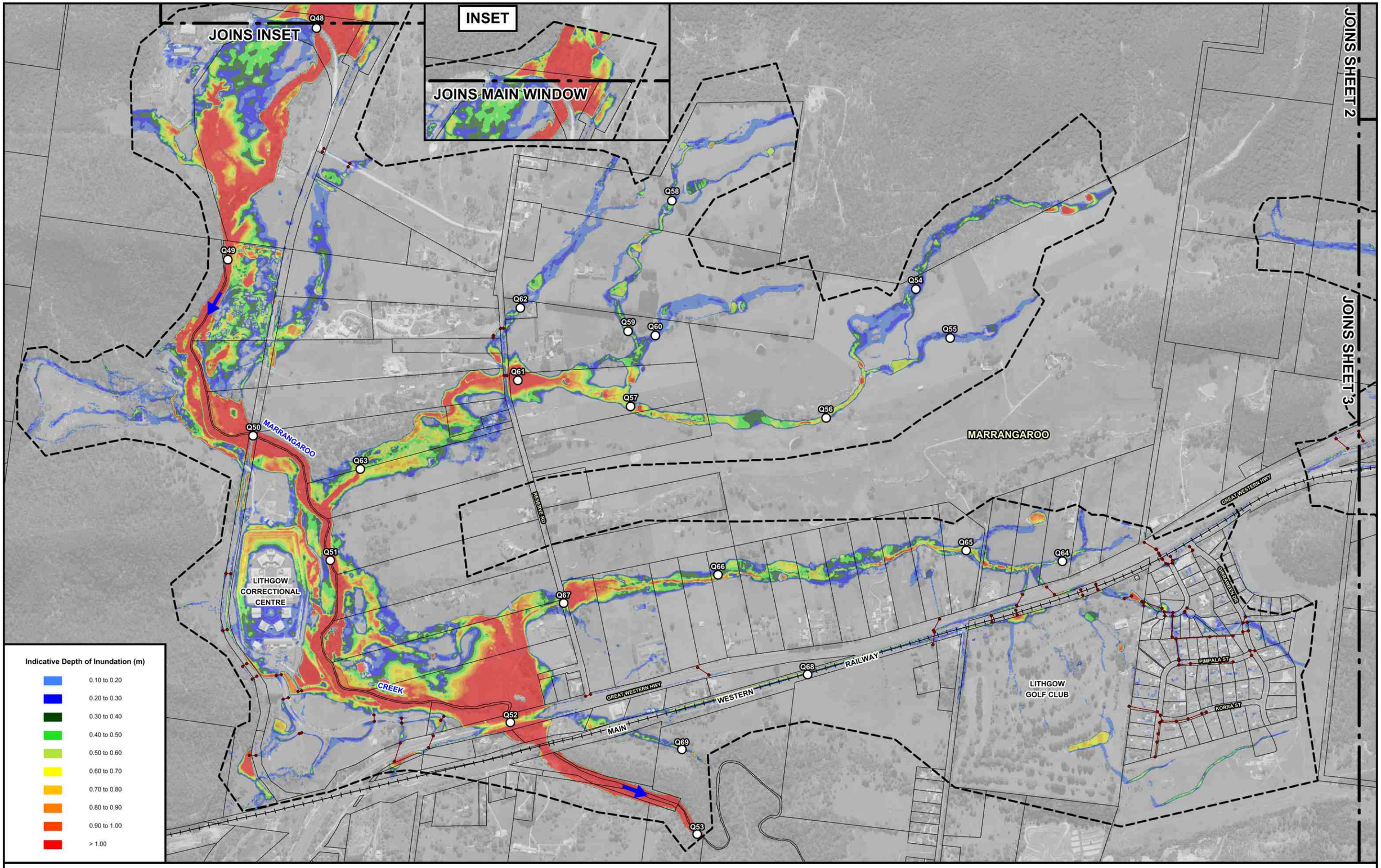
- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Q11 Peak Flow Location and Identifier (Refer Appendix F)
- Extent of Recent Subdivision Development. Details of New Stormwater Drainage System have not been Incorporated in Farmers Creek TUFLOW Model.

Lyall & Associates

LITHGOW FLOOD STUDY REVIEW

Figure 6.5
(Sheet 3 of 4)

TUFLOW MODEL RESULTS
200 YEAR ARI



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LEGEND

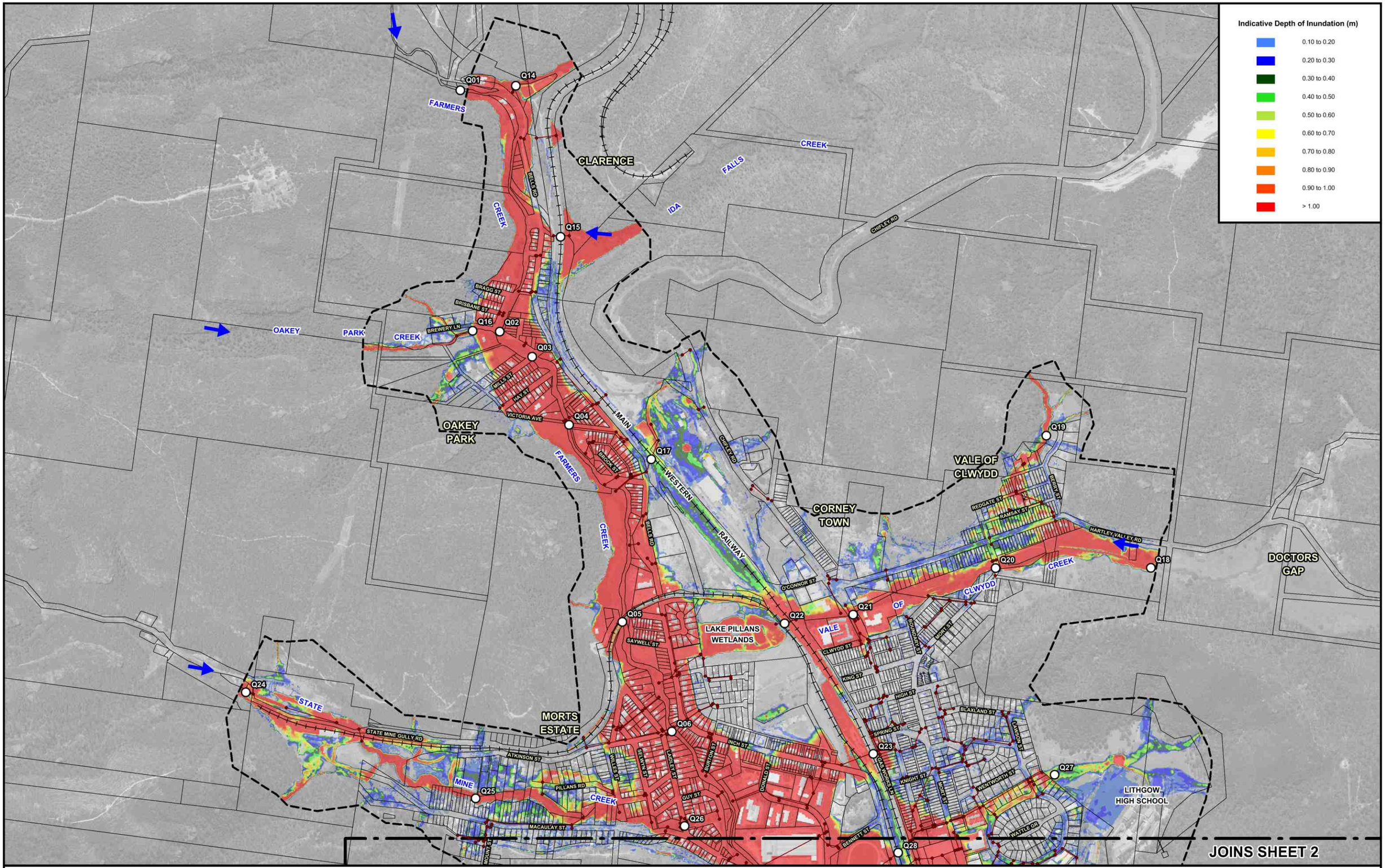
- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Q50 Peak Flow Location and Identifier (Refer Appendix F)

Lyall & Associates

LITHGOW FLOOD STUDY REVIEW

Figure 6.5
(Sheet 4 of 4)

TUFLOW MODEL RESULTS
200 YEAR ARI



120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

NOTE:

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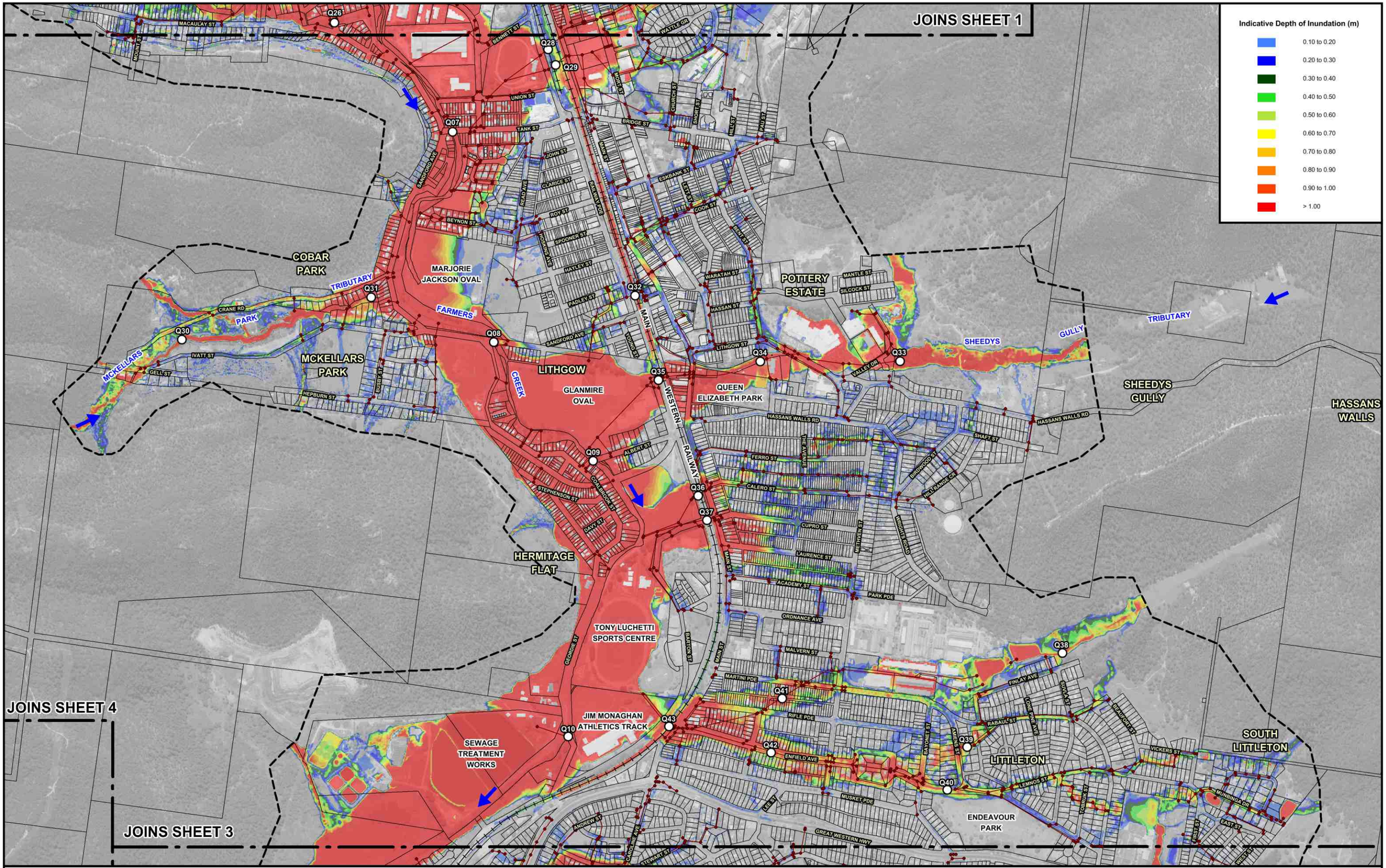
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Q01 Peak Flow Location and Identifier (Refer Appendix F)

LITHGOW FLOOD STUDY REVIEW

Figure 6.6
(Sheet 1 of 4)

TUFLOW MODEL RESULTS
PMF



120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

NOTE:

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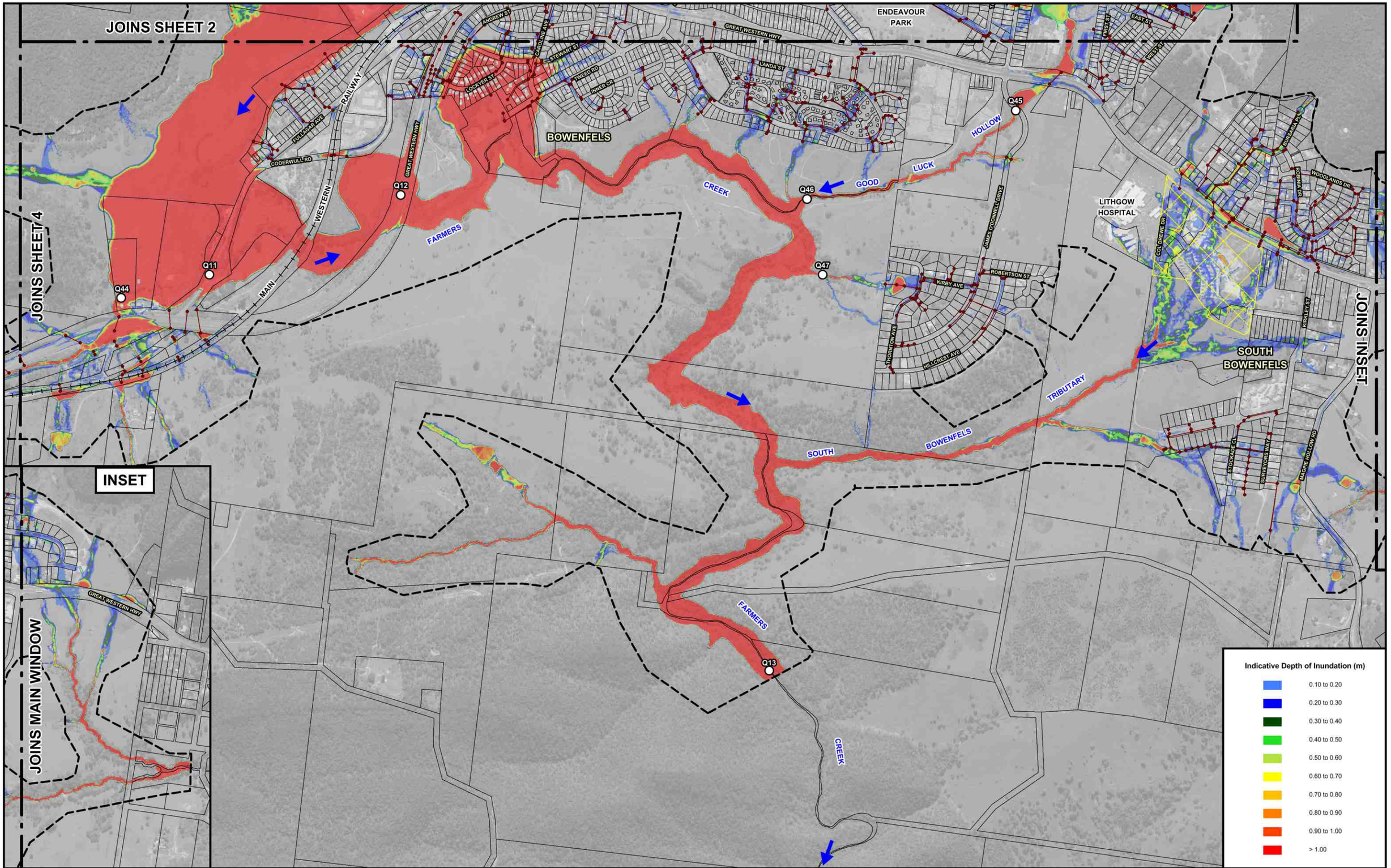
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Q08 Peak Flow Location and Identifier (Refer Appendix F)

LITHGOW FLOOD STUDY REVIEW

Figure 6.6
(Sheet 2 of 4)

TUFLOW MODEL RESULTS
PMF



N

120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

NOTE:

The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3m grid and does notnnecessarily incorporate localised features which can influence flooding behaviour in individual allotments.

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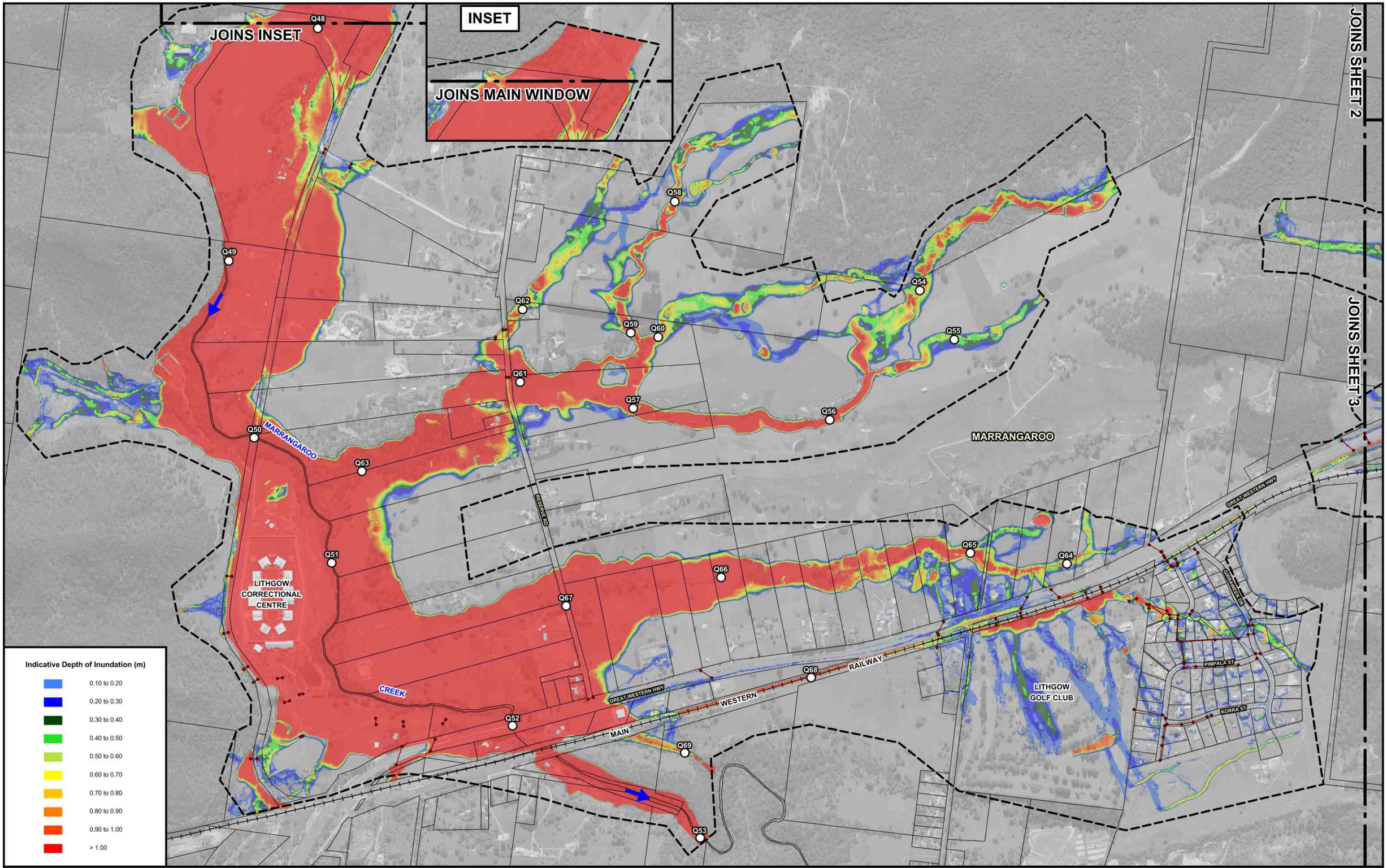
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Q11 Peak Flow Location and Identifier (Refer Appendix F)
- Extent of Recent Subdivision Development. Details of New Stormwater Drainage System have not been Incorporated in Farmers Creek TUFLOW Model.

LITHGOW FLOOD STUDY REVIEW

Figure 6.6
(Sheet 3 of 4)

TUFLOW MODEL RESULTS
PMF



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LEGEND

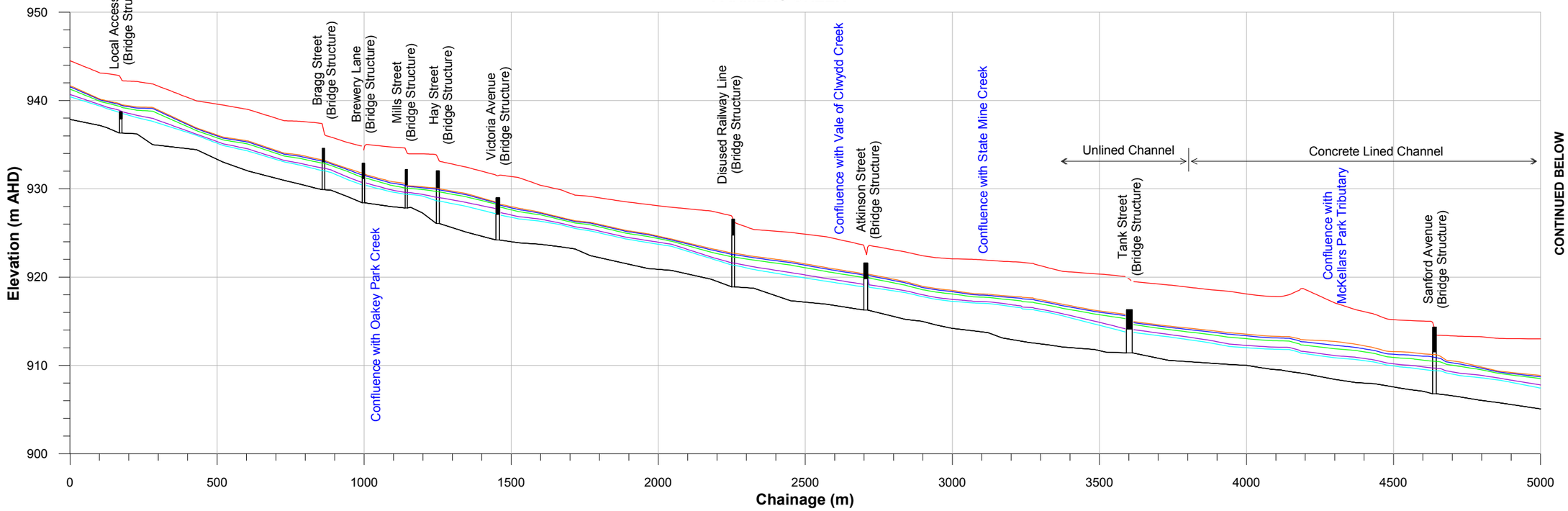
- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Q50 Peak Flow Location and Identifier (Refer Appendix F)

LITHGOW FLOOD STUDY REVIEW

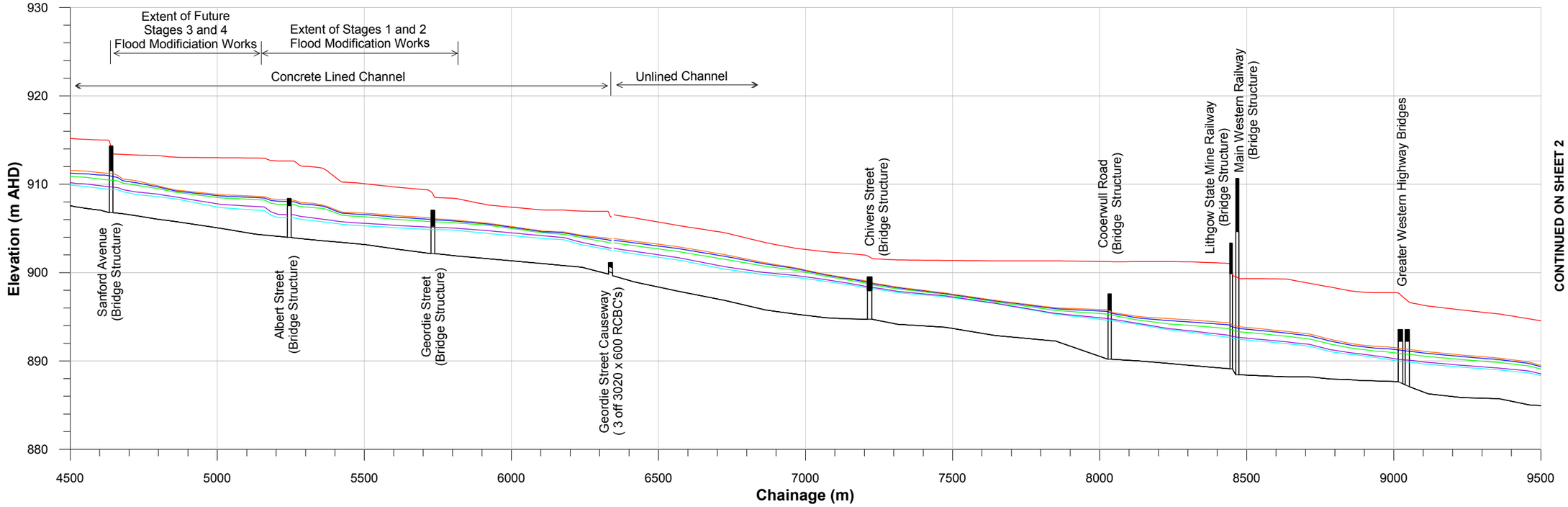
Figure 6.6
(Sheet 4 of 4)

TUFLOW MODEL RESULTS
PMF

FARMERS CREEK



FARMERS CREEK CONTINUED



LEGEND

- PMF
- 200 year ARI
- 100 year ARI
- 50 year ARI
- 10 year ARI
- 5 year ARI

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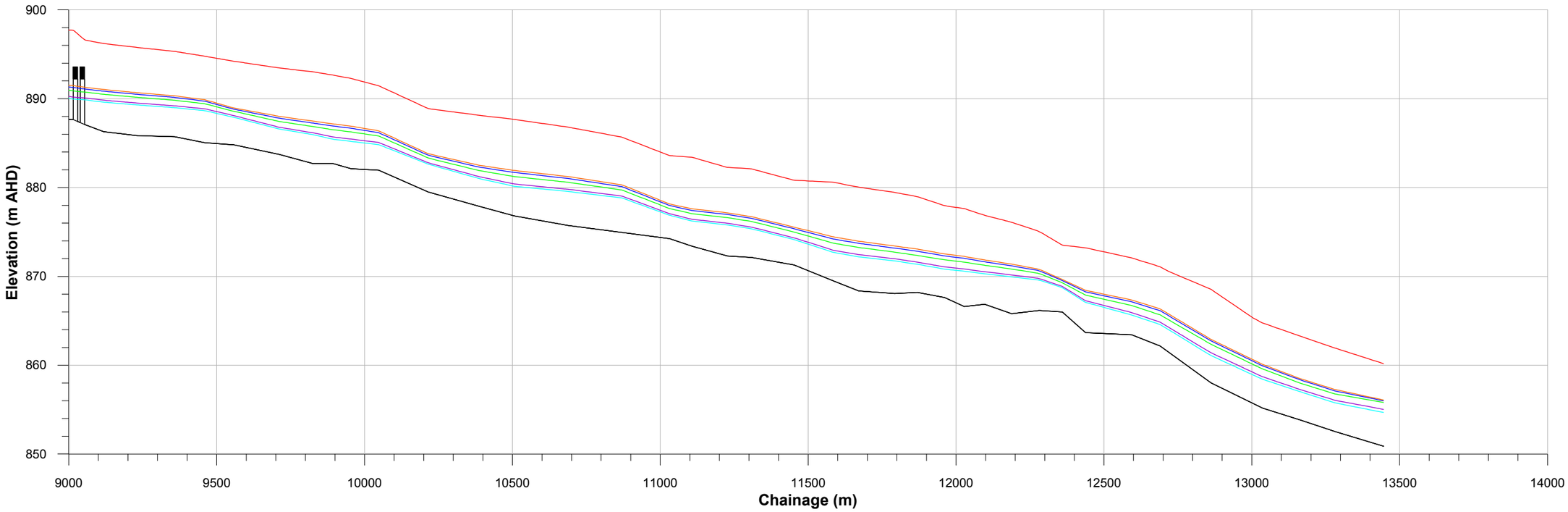
LITHGOW FLOOD STUDY REVIEW

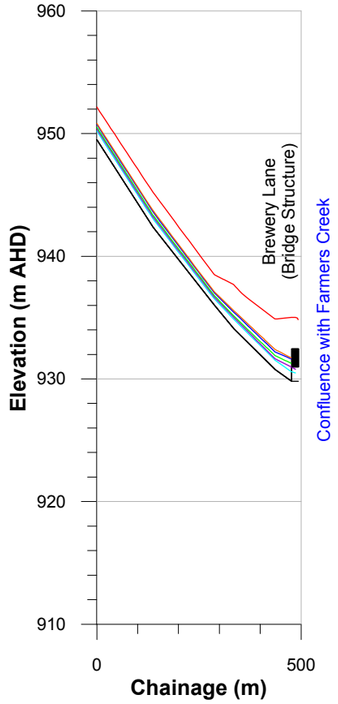
Figure 6.7
(Sheet 1 of 3)

WATER SURFACE PROFILES
DESIGN STORM EVENTS

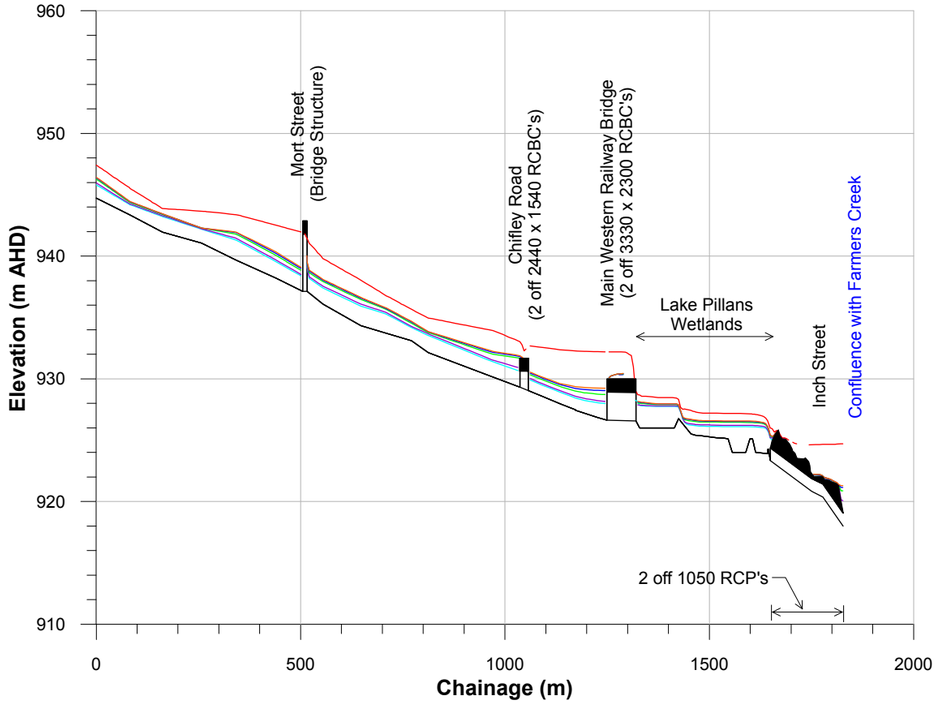
FARMERS CREEK CONTINUED



OAKEY PARK CREEK



VALE OF CLWYDD CREEK



LEGEND

- PMF
- 200 year ARI
- 100 year ARI
- 50 year ARI
- 10 year ARI
- 5 year ARI

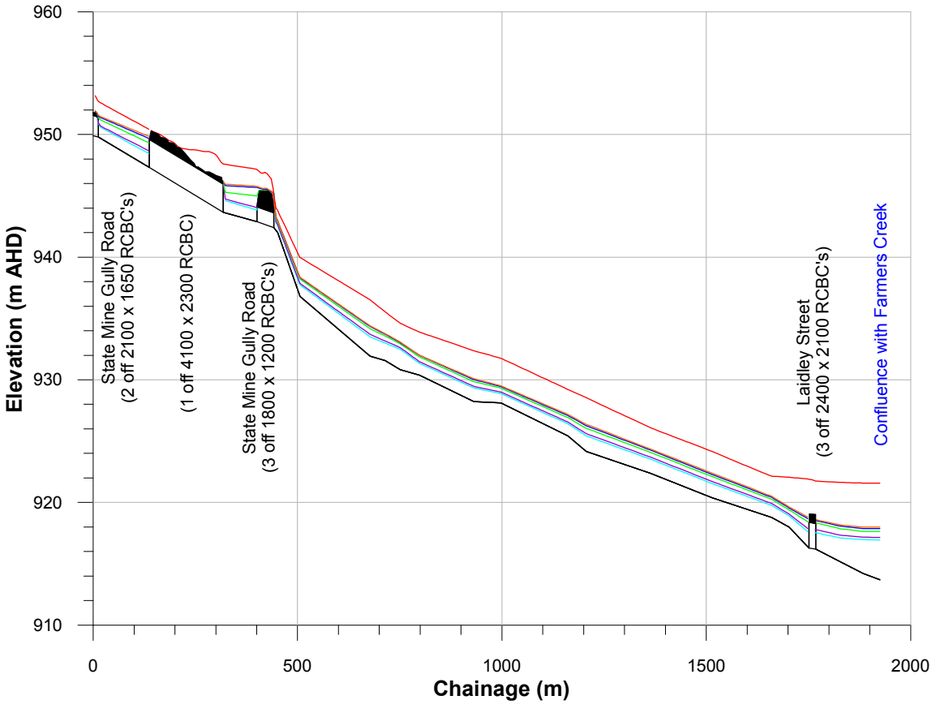
Lyall & Associates

LITHGOW FLOOD STUDY REVIEW

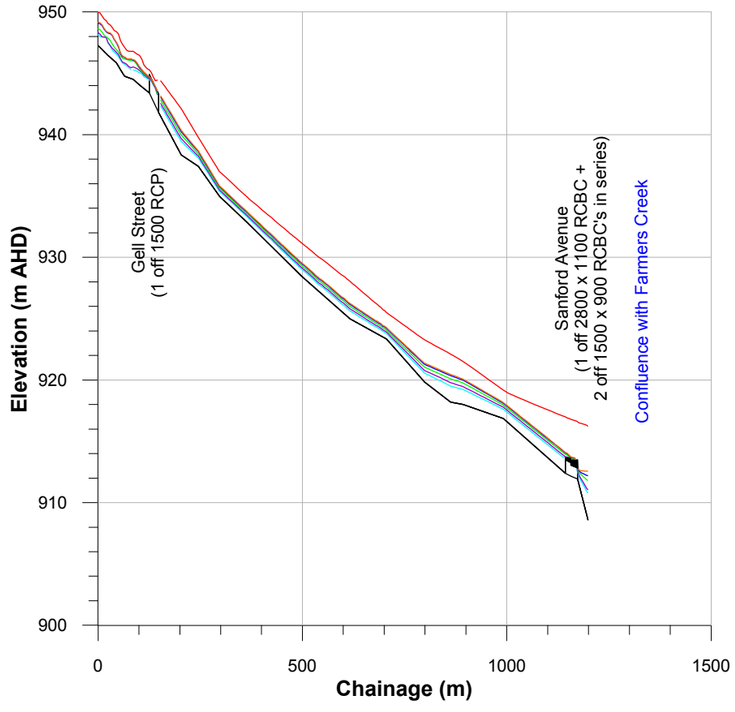
Figure 6.7
(Sheet 2 of 3)

WATER SURFACE PROFILES
DESIGN STORM EVENTS

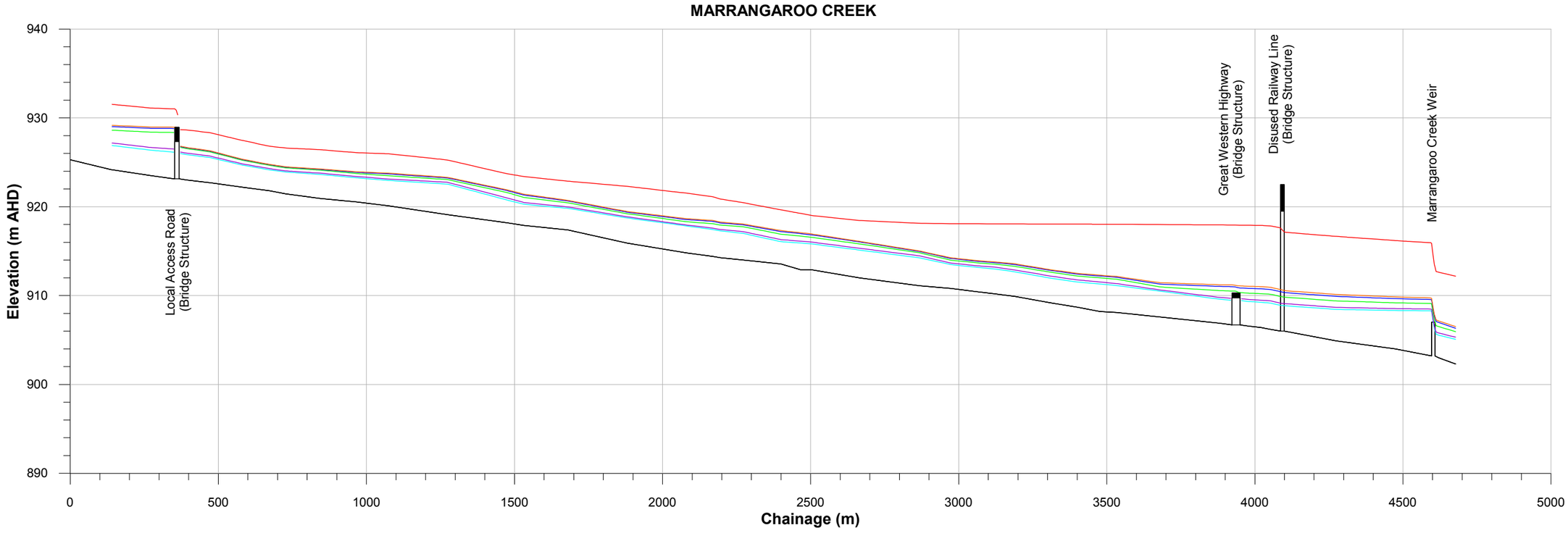
STATE MINE CREEK



MCKELLARS PARK TRIBUTARY



MARRANGAROO CREEK



LEGEND

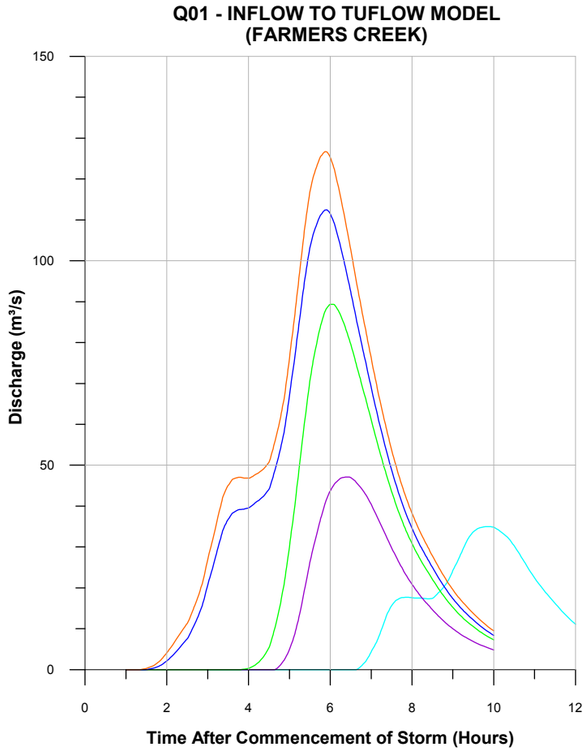
- PMF
- 200 year ARI
- 100 year ARI
- 50 year ARI
- 10 year ARI
- 5 year ARI

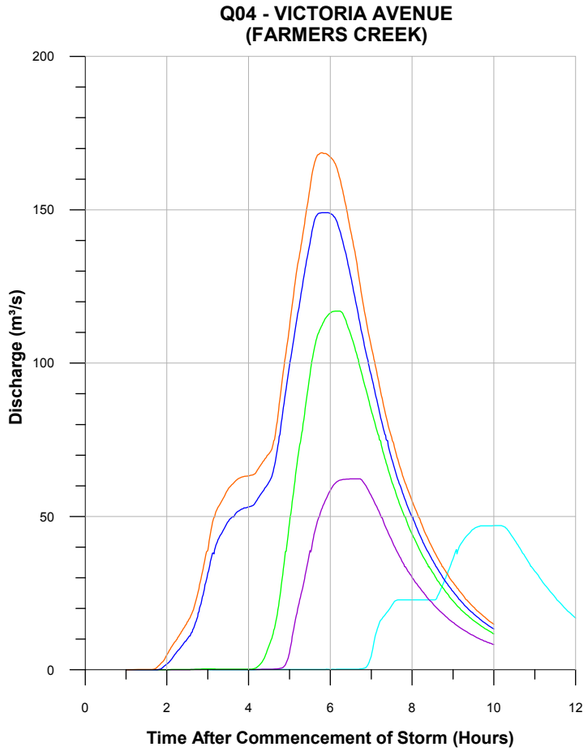
Lyall & Associates

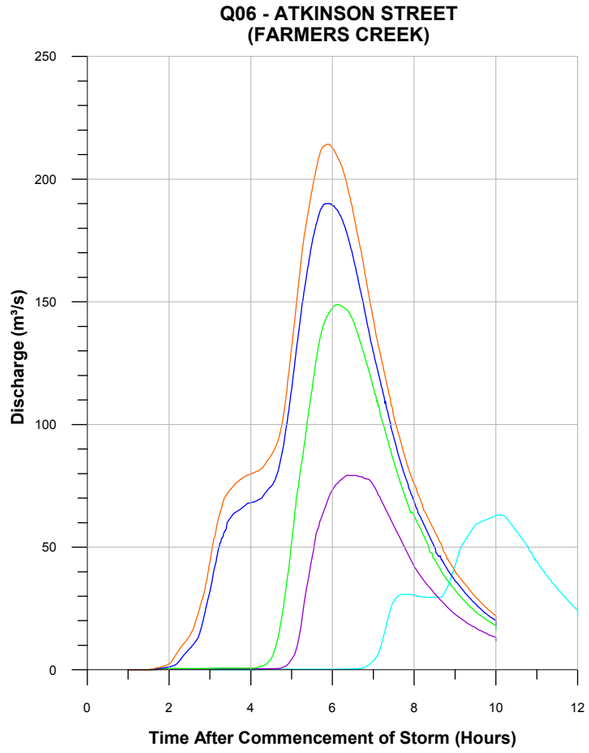
LITHGOW FLOOD STUDY REVIEW

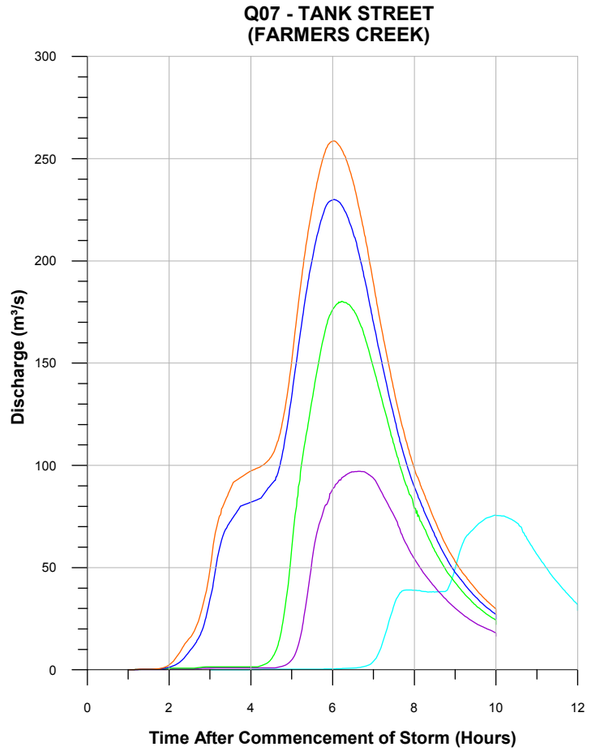
Figure 6.7
(Sheet 3 of 3)

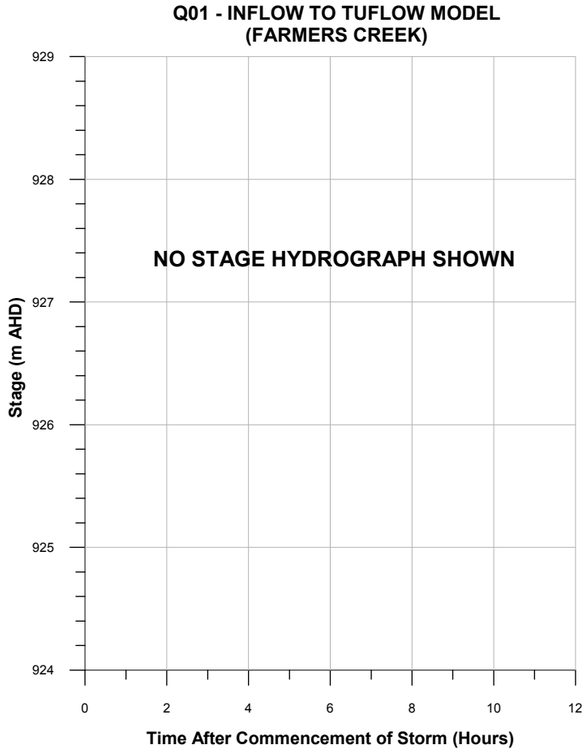
WATER SURFACE PROFILES
DESIGN STORM EVENTS

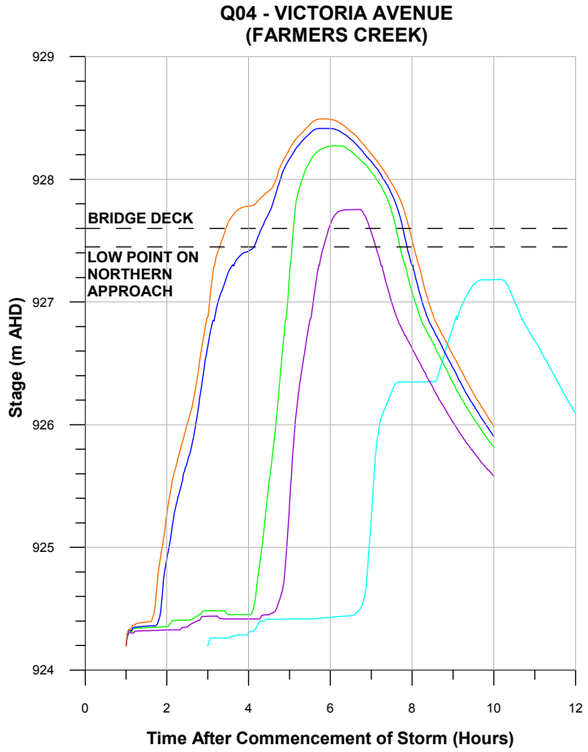


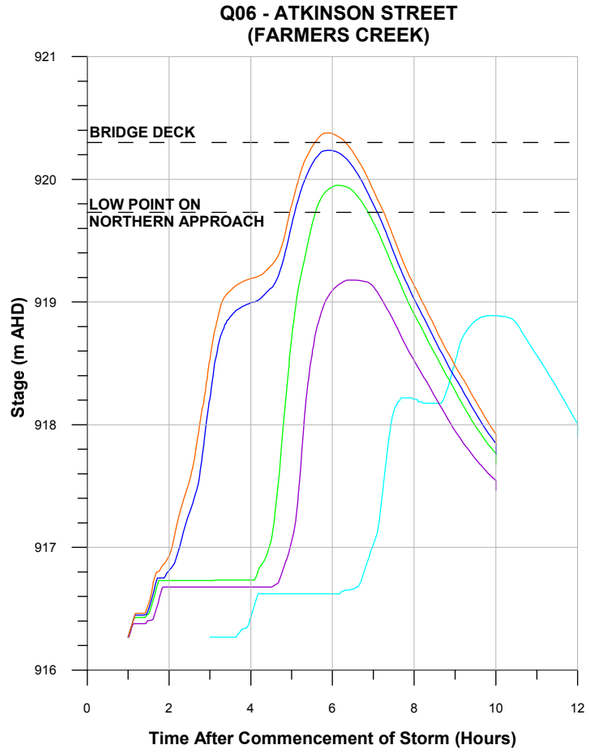


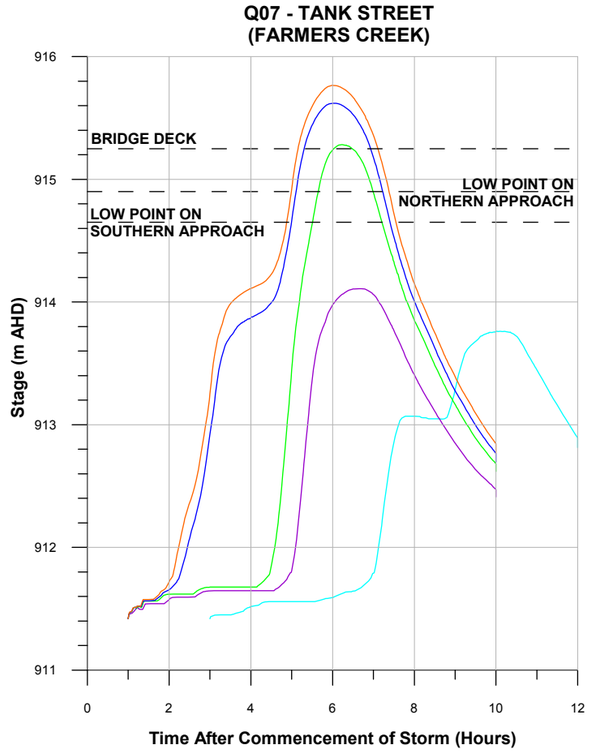












LEGEND

- 200 year ARI
- 100 year ARI
- 50 year ARI
- 10 year ARI
- 5 year ARI

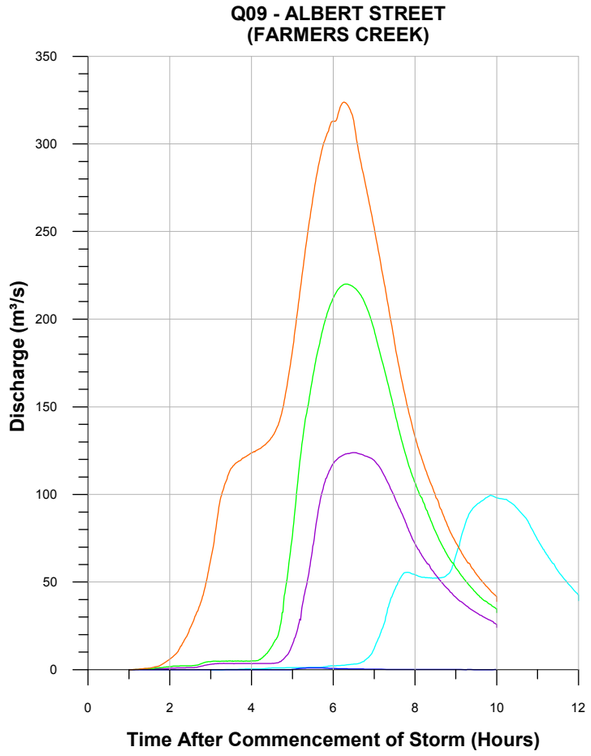
Lyall & Associates

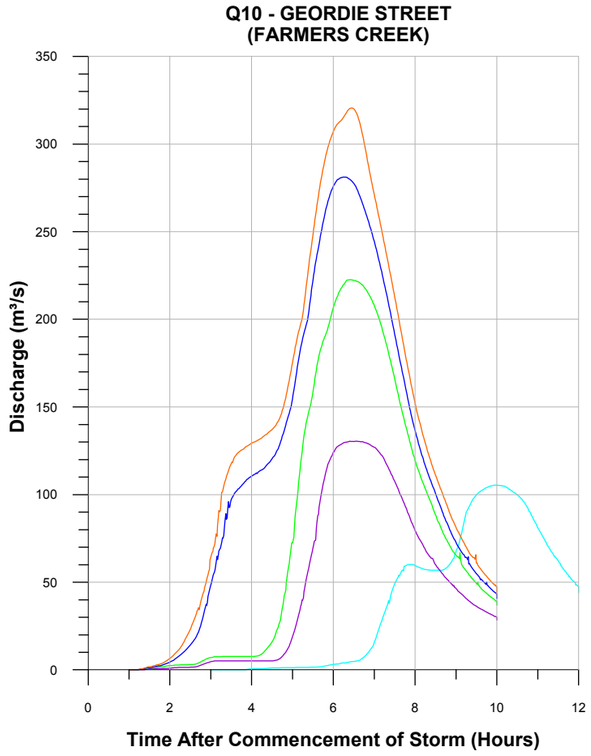
NOTE:
Refer table F1 for duration of critical storm.

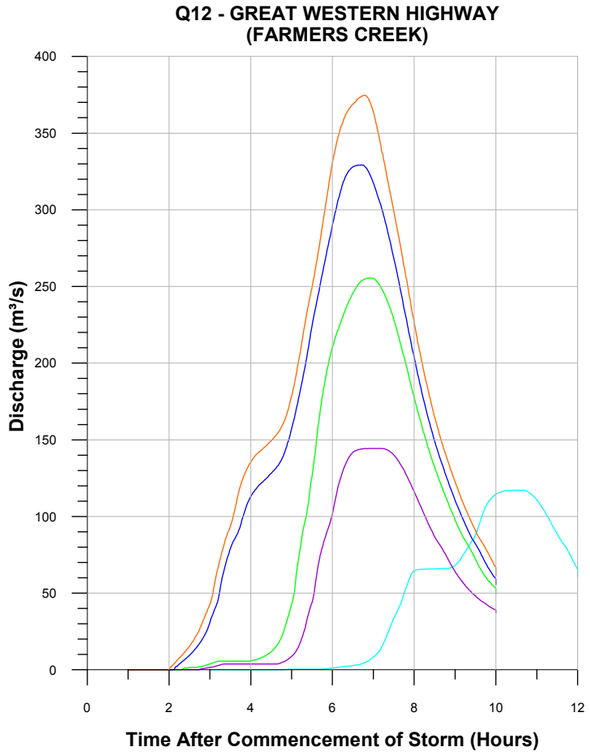
LITHGOW FLOOD STUDY REVIEW

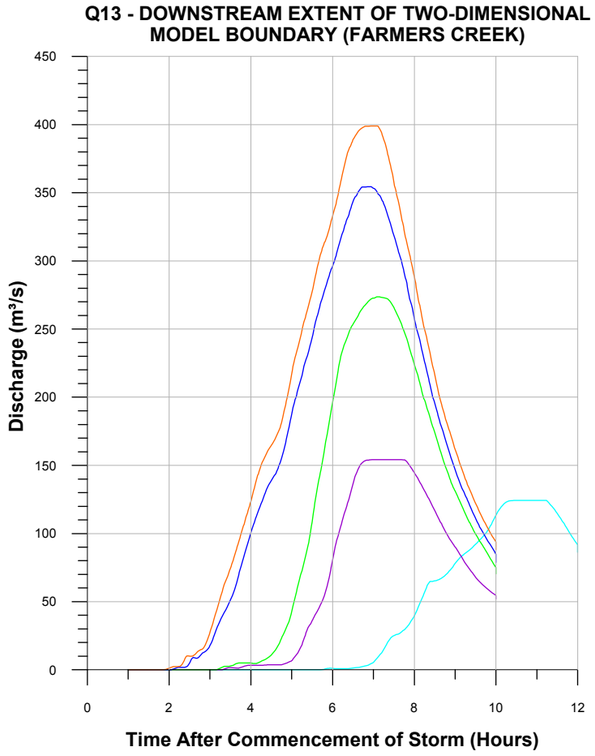
Figure 6.8
(Sheet 1 of 5)

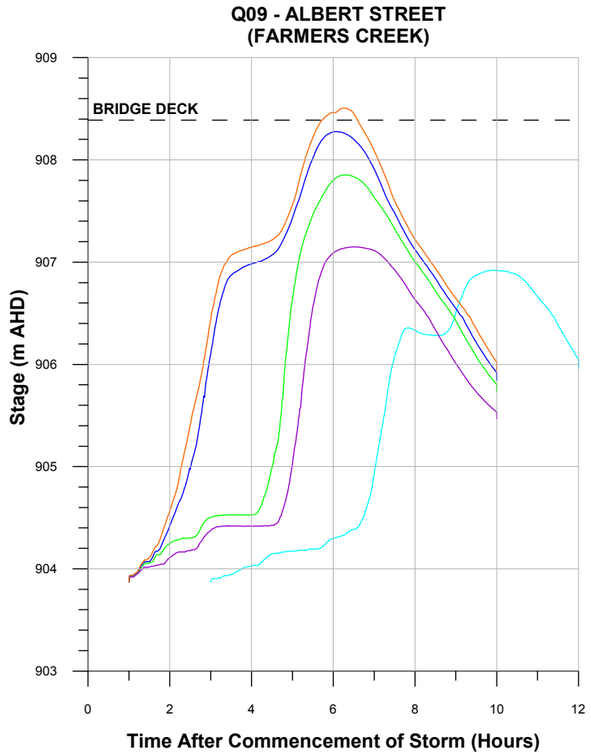
STAGE AND DISCHARGE HYDROGRAPHS
DESIGN STORM EVENTS

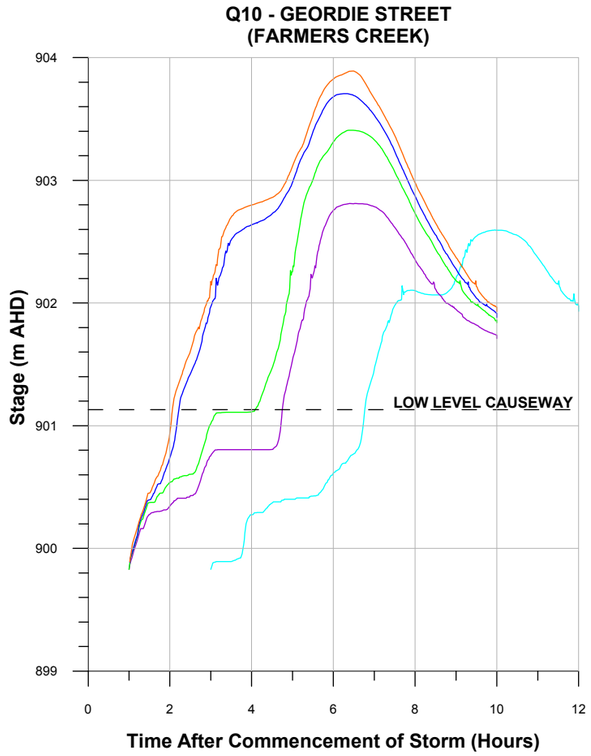


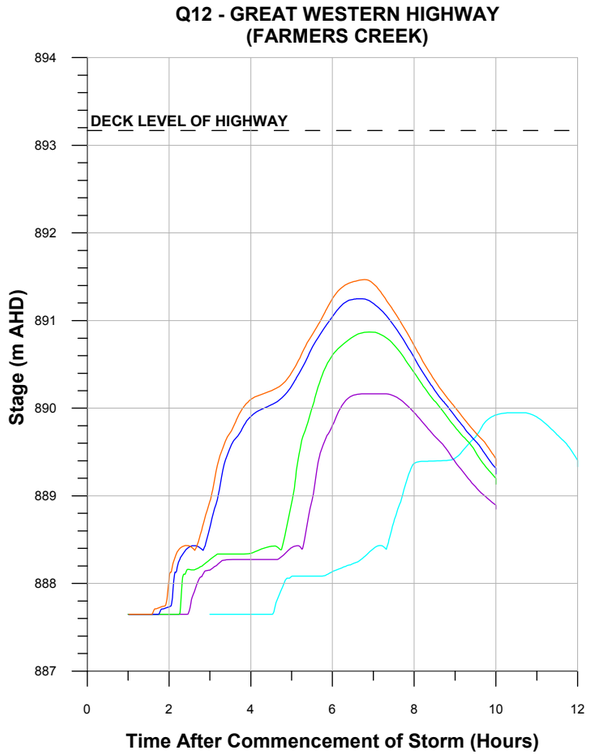


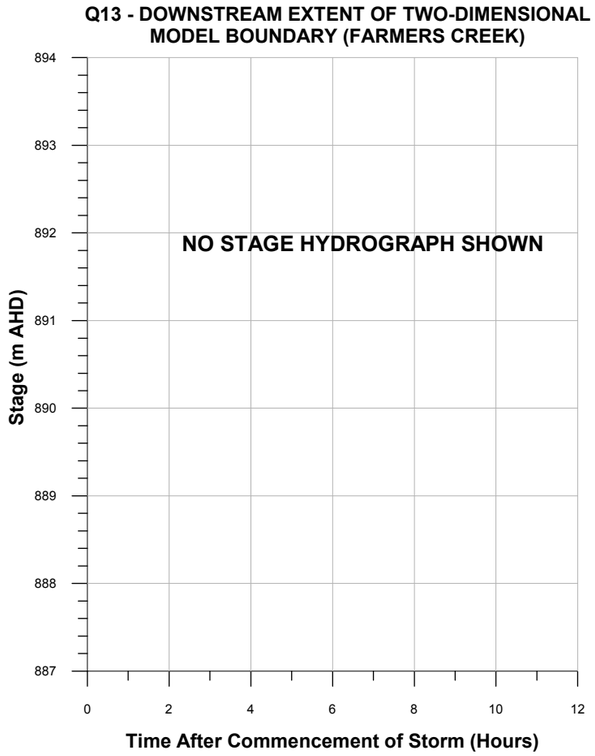












LEGEND

- 200 year ARI
- 100 year ARI
- 50 year ARI
- 10 year ARI
- 5 year ARI

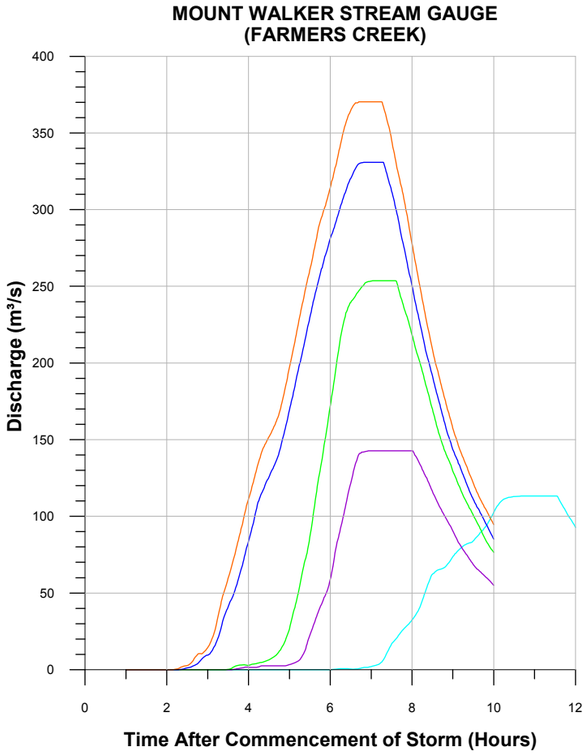
Lyall & Associates

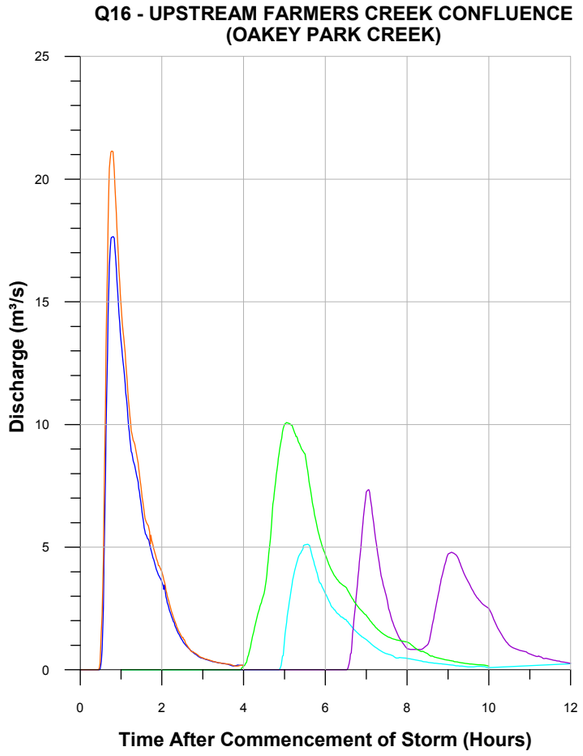
NOTE:
Refer table F1 for duration of critical storm.

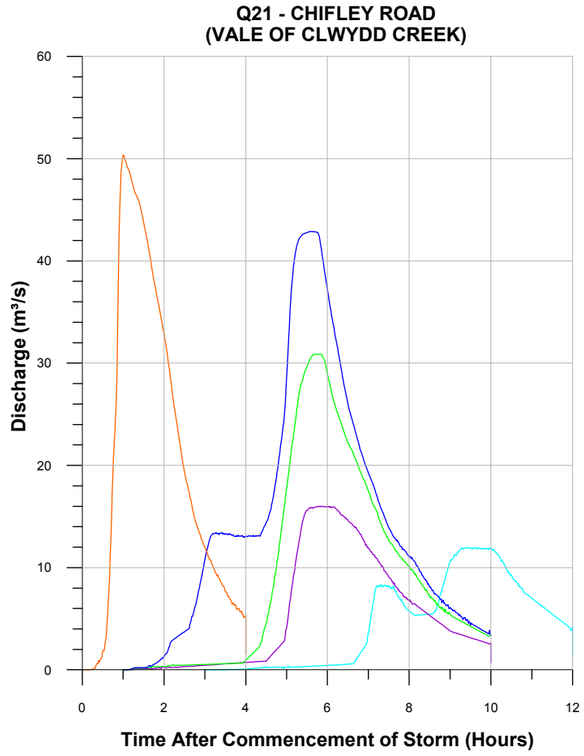
LITHGOW FLOOD STUDY REVIEW

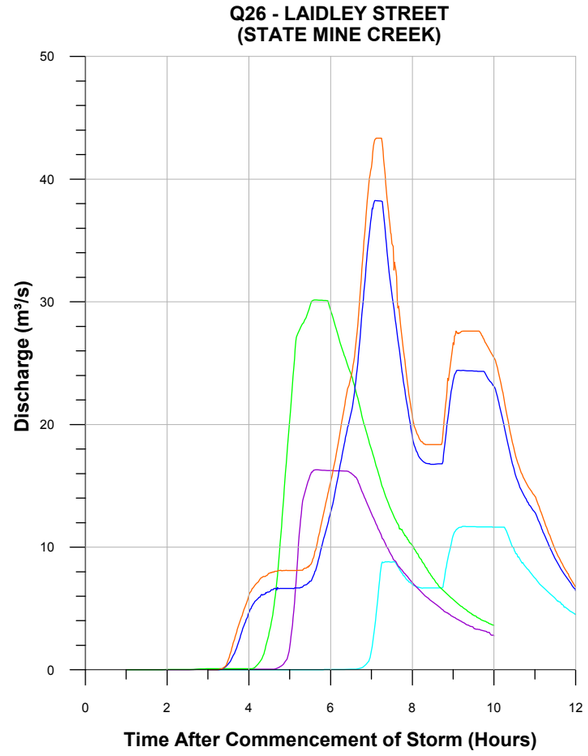
Figure 6.8
(Sheet 2 of 5)

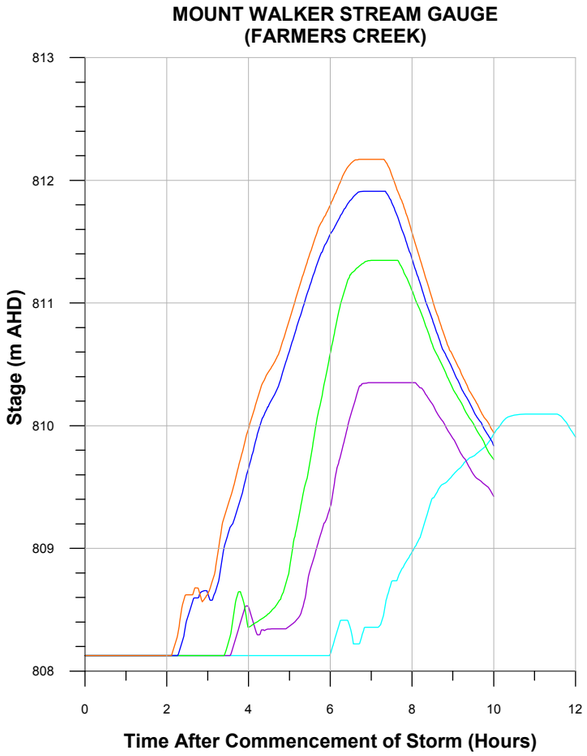
STAGE AND DISCHARGE HYDROGRAPHS
DESIGN STORM EVENTS

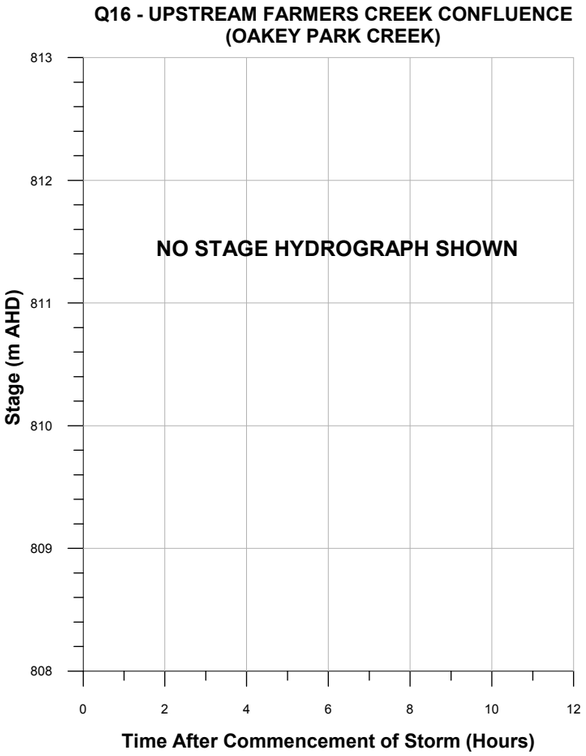


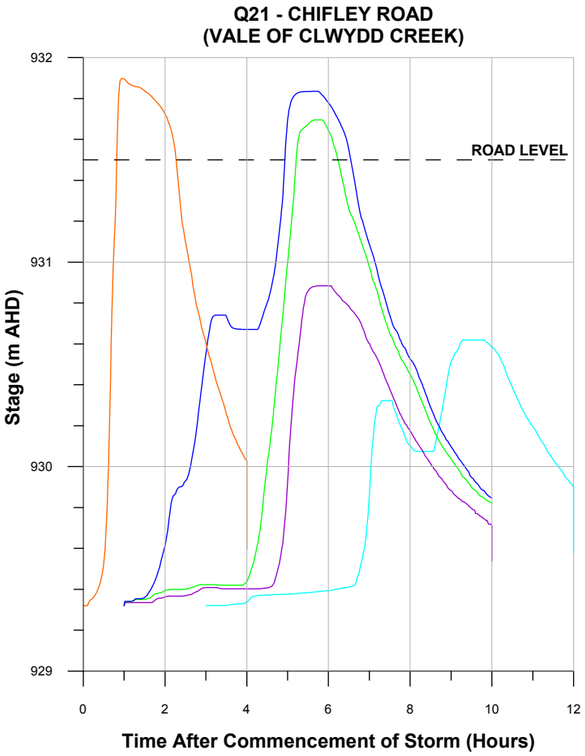


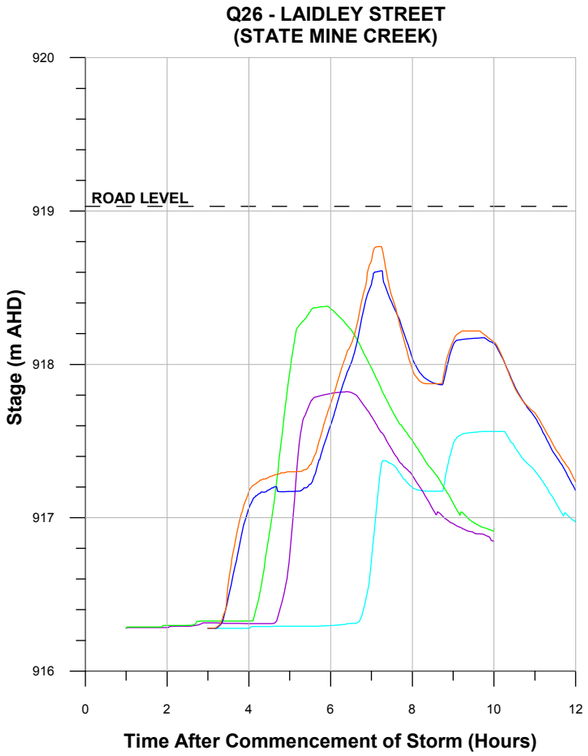












LEGEND

- 200 year ARI
- 100 year ARI
- 50 year ARI
- 10 year ARI
- 5 year ARI

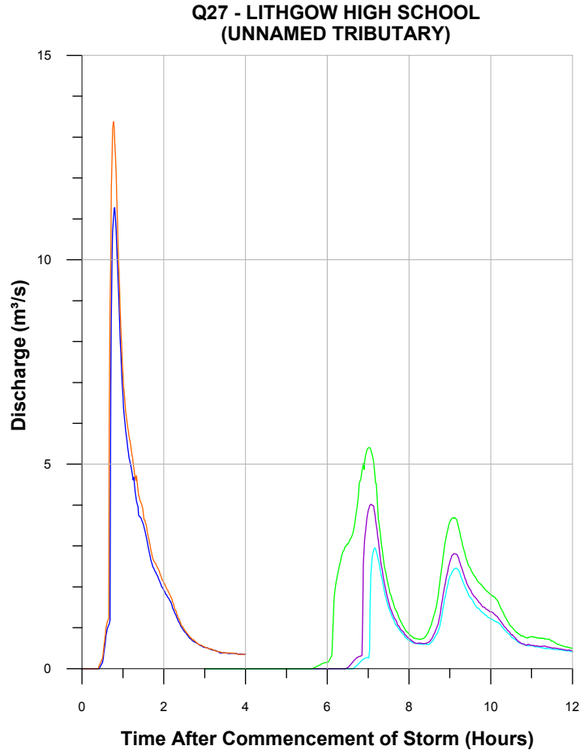
NOTE:
Refer table F1 for duration of critical storm.

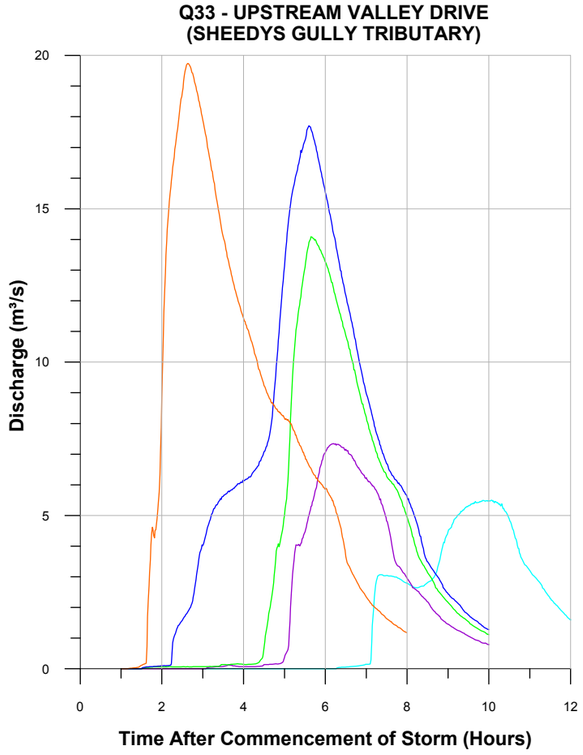
Lyall & Associates

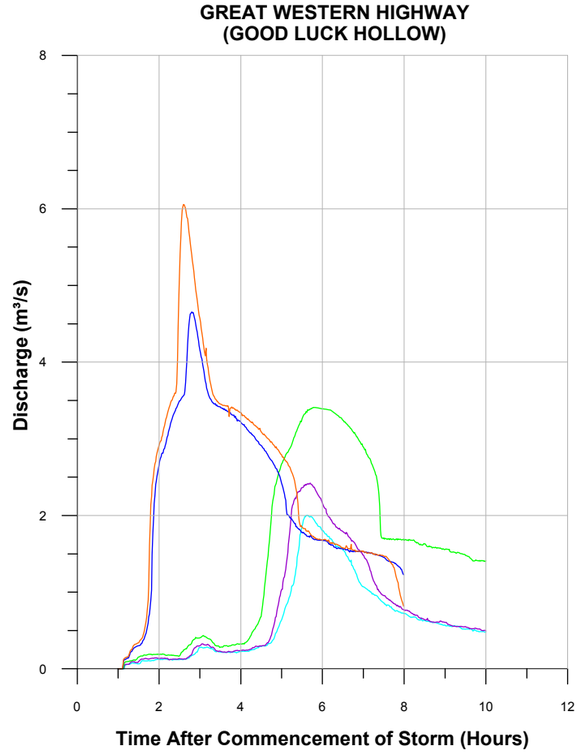
LITHGOW FLOOD STUDY REVIEW

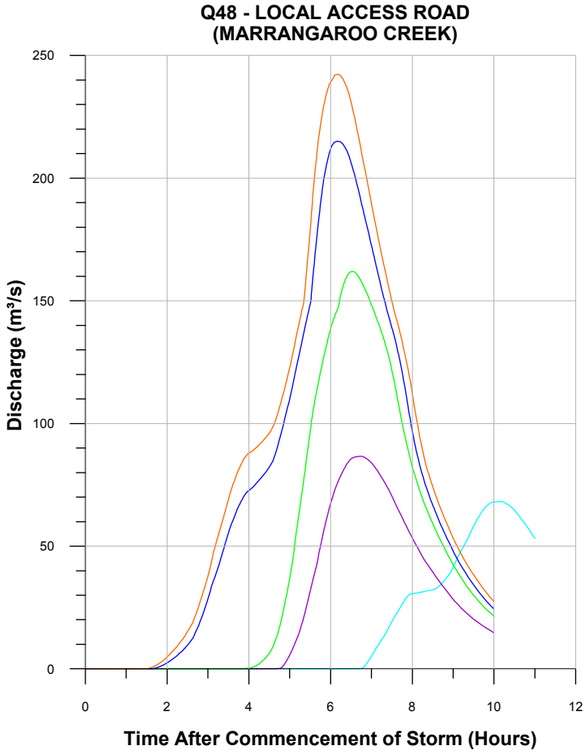
Figure 6.8
(Sheet 3 of 5)

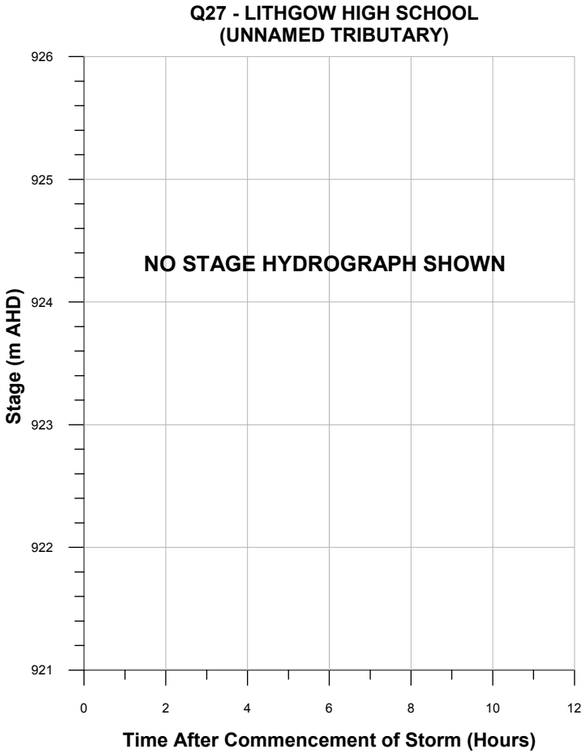
STAGE AND DISCHARGE HYDROGRAPHS
DESIGN STORM EVENTS

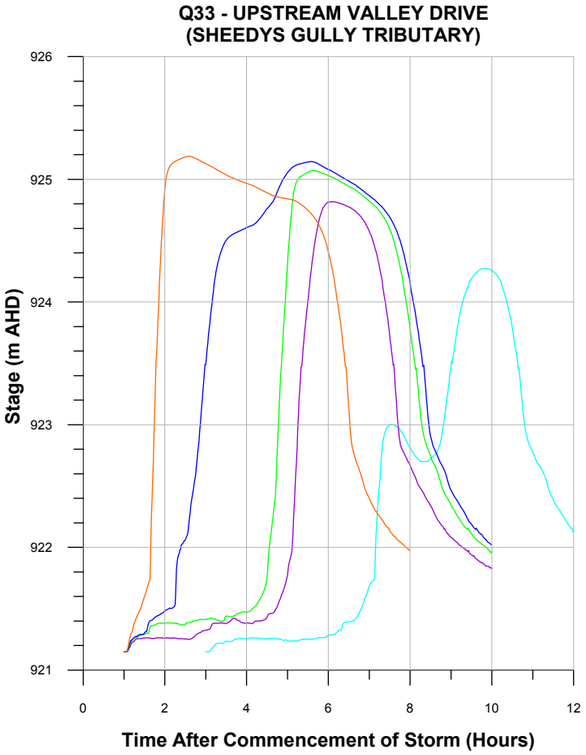


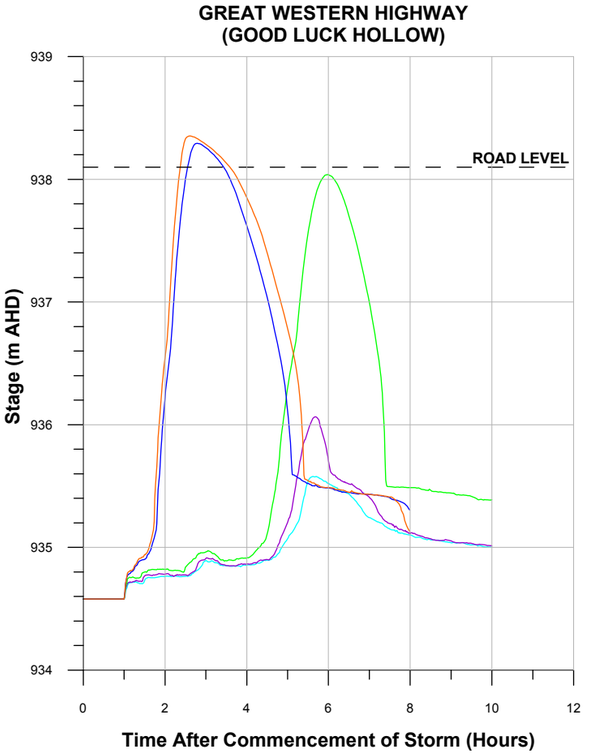


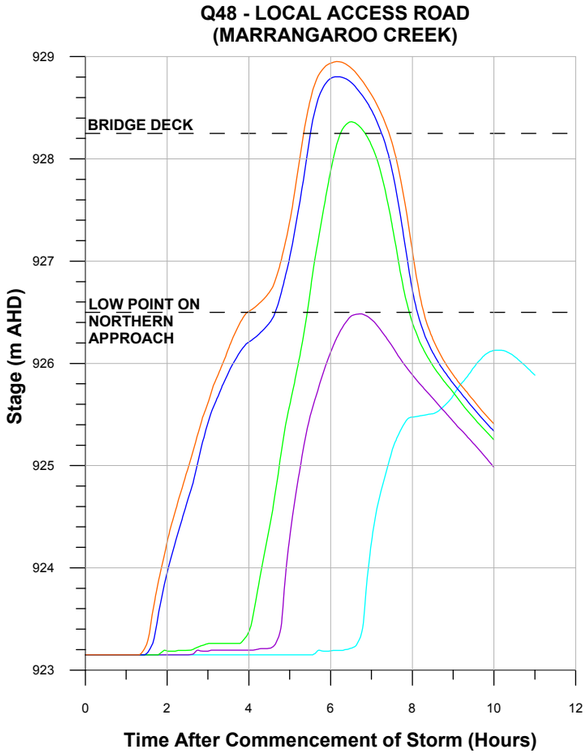












LEGEND

- 200 year ARI
- 100 year ARI
- 50 year ARI
- 10 year ARI
- 5 year ARI

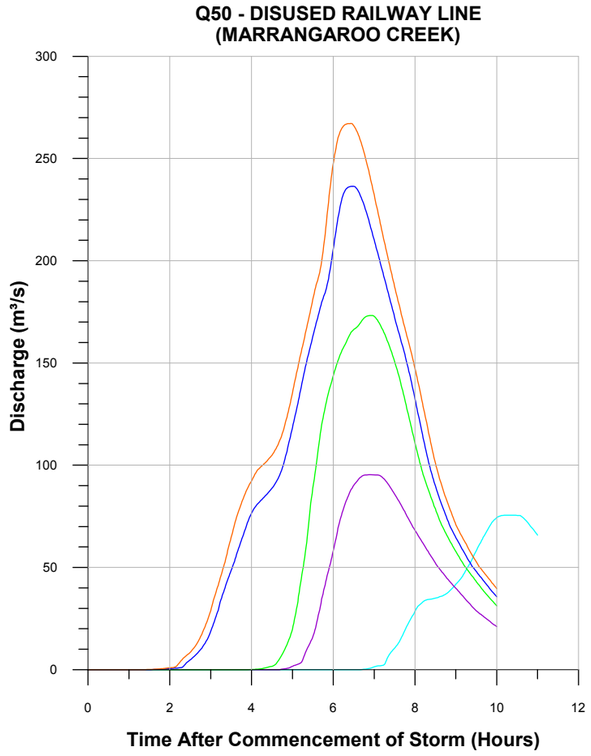
NOTE:
Refer table F1 for duration of critical storm.

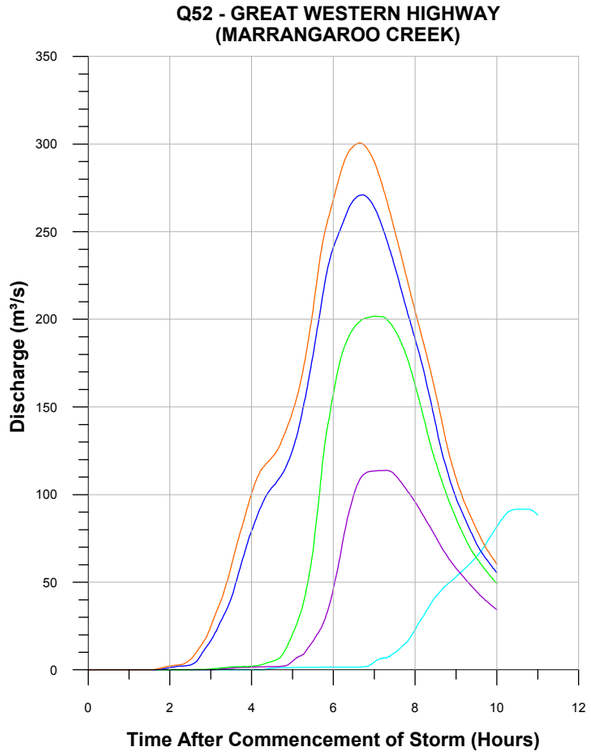
Lyall & Associates

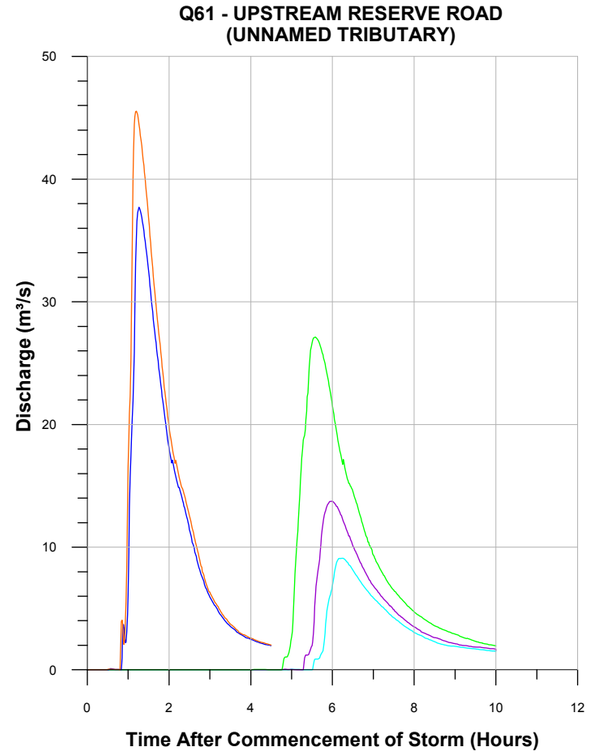
LITHGOW FLOOD STUDY REVIEW

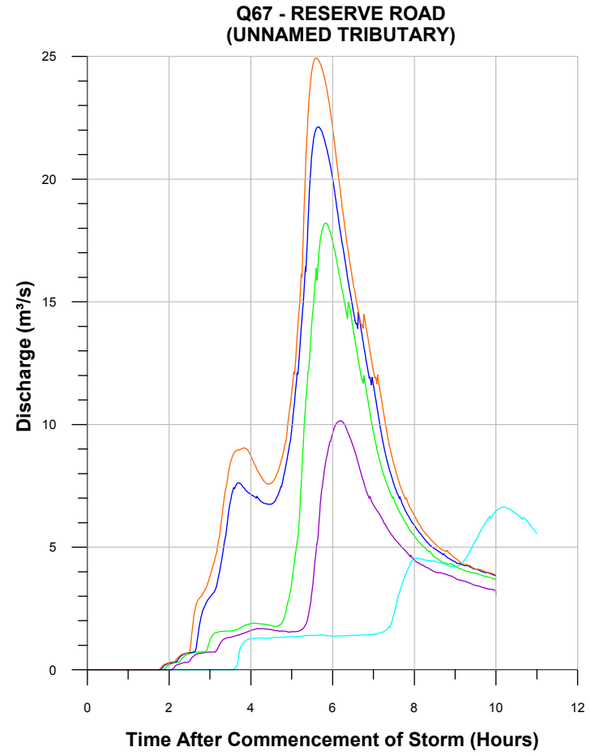
Figure 6.8
(Sheet 4 of 5)

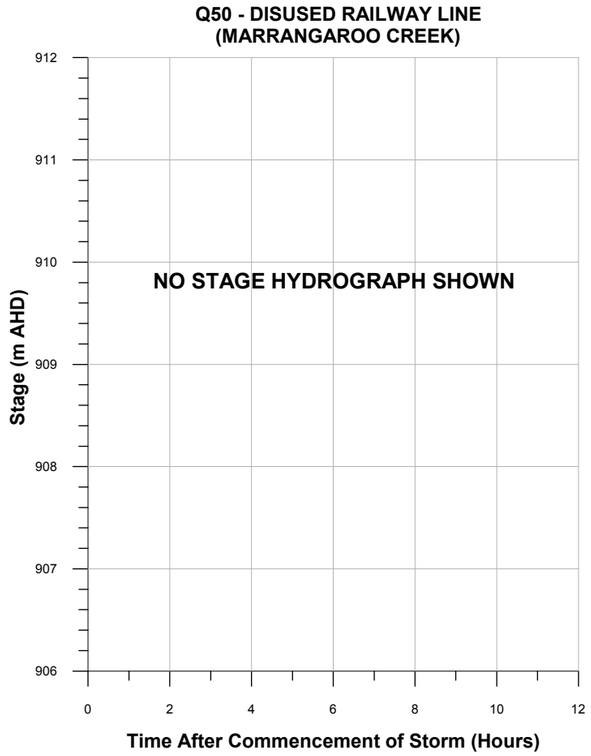
STAGE AND DISCHARGE HYDROGRAPHS
DESIGN STORM EVENTS

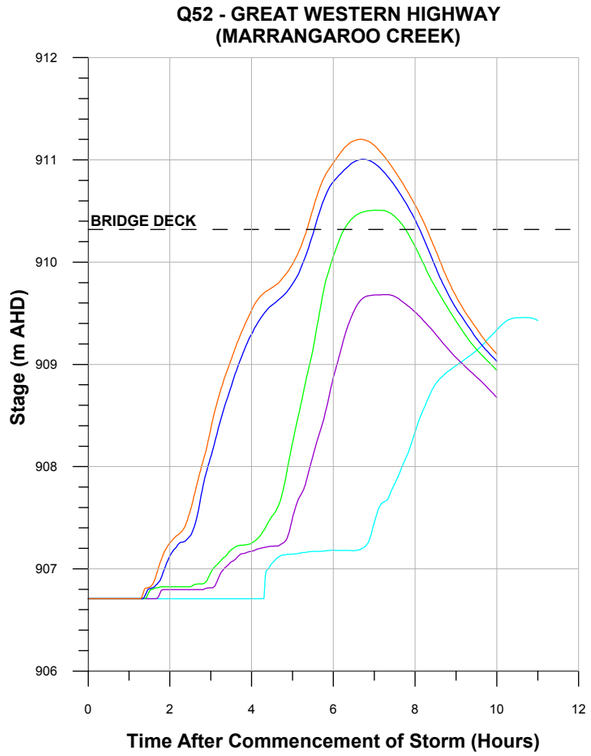


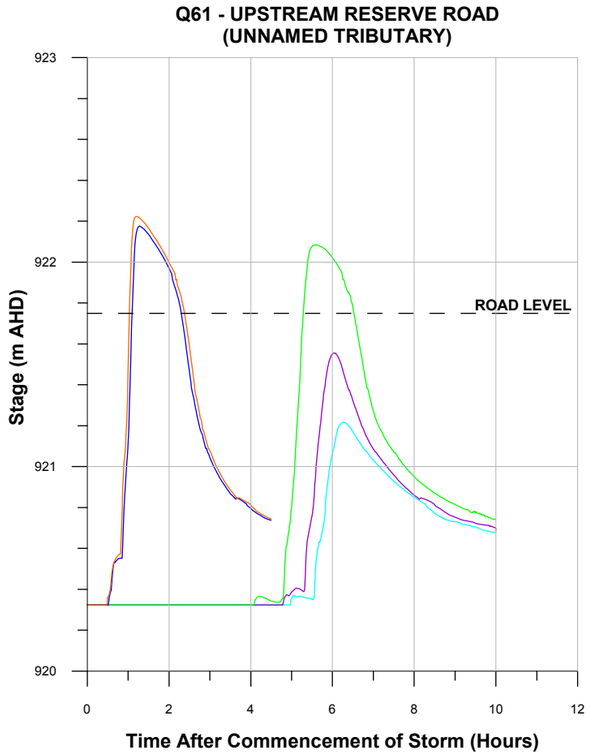


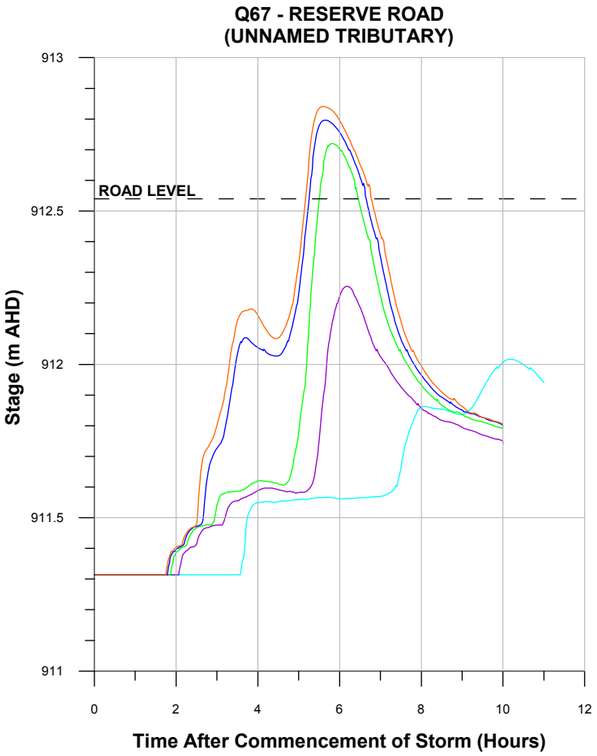












LEGEND

- 200 year ARI
- 100 year ARI
- 50 year ARI
- 10 year ARI
- 5 year ARI

NOTE:
Refer table F1 for duration of critical storm.

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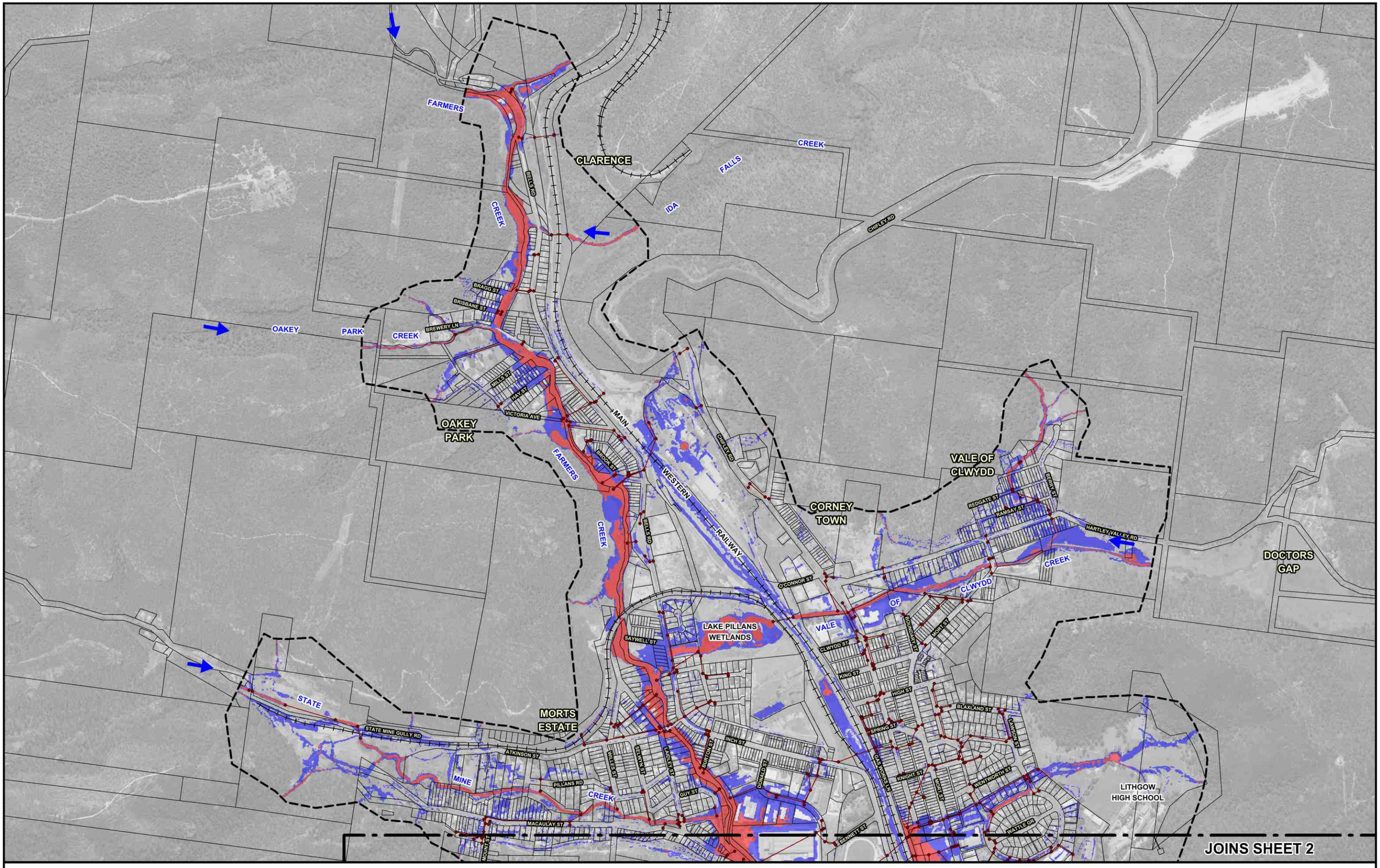
LITHGOW FLOOD STUDY REVIEW

Figure 6.8
(Sheet 5 of 5)

STAGE AND DISCHARGE HYDROGRAPHS
DESIGN STORM EVENTS



120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

NOTE:

The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3m 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

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- High Provisional Hydraulic Hazard
- Low Provisional Hydraulic Hazard

(Categories based on Figure L2 of NSW Government's Floodplain Development Manual, 2005)

LITHGOW FLOOD STUDY REVIEW

Figure 6.9
(Sheet 1 of 4)

PROVISIONAL FLOOD HAZARD
100 YEAR ARI


JOINS SHEET 1
JOINS SHEET 4
JOINS SHEET 3
COBAR PARK
TRIBUTARY
PARK
MCKELLARS
MCKELLARS PARK
MARJORIE JACKSON OVAL
FARMERS
CREEK
LITHGOW
GLANMIRE OVAL
QUEEN ELIZABETH PARK
POTTERY ESTATE
SHEEDYS
GULLY
TRIBUTARY
SHEEDYS GULLY
HASSANS WALLS
MAIN
WESTERN
RAILWAY
HERMITAGE FLAT
TONY LUCHETTI SPORTS CENTRE
JIM MONAGHAN ATHLETICS TRACK
SEWAGE TREATMENT WORKS
LITTLETON
SOUTH LITTLETON
ENDEAVOUR PARK
MACAULAY ST
BENNETT ST
UNION ST
TANK ST
BRIDGE ST
JOHN ST
CLARICE ST
ROY ST
SPOONER ST
HAYLEY ST
PADLEY ST
SANDFORD AVE
BEYNON ST
CRANE RD
IVATT ST
GELL ST
HEPBURN ST
BUSBY ST
ESKBANK ST
COOK ST
WARATAH ST
HASSAN ST
LITHGOW ST
MANTLE ST
SILCOCK ST
VALLEY DR
HASSANS WALLS RD
SHAFT ST
FERRO ST
CALERO ST
CUPRO ST
LAURENCE ST
ACADEMY ST
PARK PDE
ORDNANCE AVE
MALVERN ST
MARTINI PDE
RIFLE PDE
ENFIELD AVE
MUSKET PDE
GREAT WESTERN HWY
FINLAY AVE
RABAUL ST
LEMNOS ST
VICKERS ST
MUNBINGA DR
EAST ST
STEPHENSON ST
DAVY ST
ALBERT ST
GEORGIE ST
BARTON ST
ANDREW ST
STEWART ST
LEE ST
BAYONET ST
METHVEN ST
THE AVENUE
HILL RANGE CR

120 0 120 240 360 m

Scale: 1:12,000

NOTE:

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

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LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- High Provisional Hydraulic Hazard
- Low Provisional Hydraulic Hazard

(Categories based on Figure L2 of NSW Government's Floodplain Development Manual, 2005)

Lyall & Associates

LITHGOW FLOOD STUDY REVIEW

Figure 6.9
(Sheet 2 of 4)

PROVISIONAL FLOOD HAZARD
100 YEAR ARI

JOINS SHEET 2

JOINS SHEET 4

JOINS INSET

INSET

JOINS MAIN WINDOW

ENDEAVOUR PARK

GREAT WESTERN HWY

ANDREW ST

CAROLINE AVE

STEWART ST

TWEED RD

INNER CR

LOCKYER ST

LANDA ST

EAST ST

WEST ST

BOWENFELS

RAILWAY

FULLAGAR AVE

COOERWULL RD

WESTERN

MAIN

GREAT WESTERN HWY

FARMERS

CREEK

GOOD

LUCK

HOLLOW

LITHGOW HOSPITAL

JAMES O'DONNELL DRIVE

GOLDSMITH DR

BINGARA PL

ROBINIA DR

WOODLANDS DR

KIRKLEY ST

ROBERTSON ST

KIRBY AVE

THORNTON AVE

HILLCREST AVE

SOUTH BOWENFELS

TRIBUTARY

SOUTH

BOWENFELS

STOCKADE CL

SURVEYORS WAY

MAGPIE HOLLOW RD

FARMERS

CREEK

N

120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

NOTE:

The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3m 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

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- High Provisional Hydraulic Hazard
- Low Provisional Hydraulic Hazard
  (Categories based on Figure L2 of NSW Government's Floodplain Development Manual, 2005)
- Extent of Recent Subdivision Development. Details of New Stormwater Drainage System have not been Incorporated in Farmers Creek TUFLOW Model.

LITHGOW FLOOD STUDY REVIEW

Figure 6.9
(Sheet 3 of 4)

PROVISIONAL FLOOD HAZARD
100 YEAR ARI

JOINS INSET

INSET

JOINS MAIN WINDOW

JOINS SHEET 2

JOINS SHEET 3

MARRANGAROO

MARRANGAROO

RESERVE RD

LITHGOW CORRECTIONAL CENTRE

CREEK

GREAT WESTERN HWY

WESTERN MAIN RAILWAY

LITHGOW GOLF CLUB

GREAT WESTERN HWY

GIRRAWEEN DR

PIMPALA ST

KORRA ST

120 0 120 240 360 m

Scale: 1:12,000

N

Lyall & Associates

NOTE:

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

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LEGEND

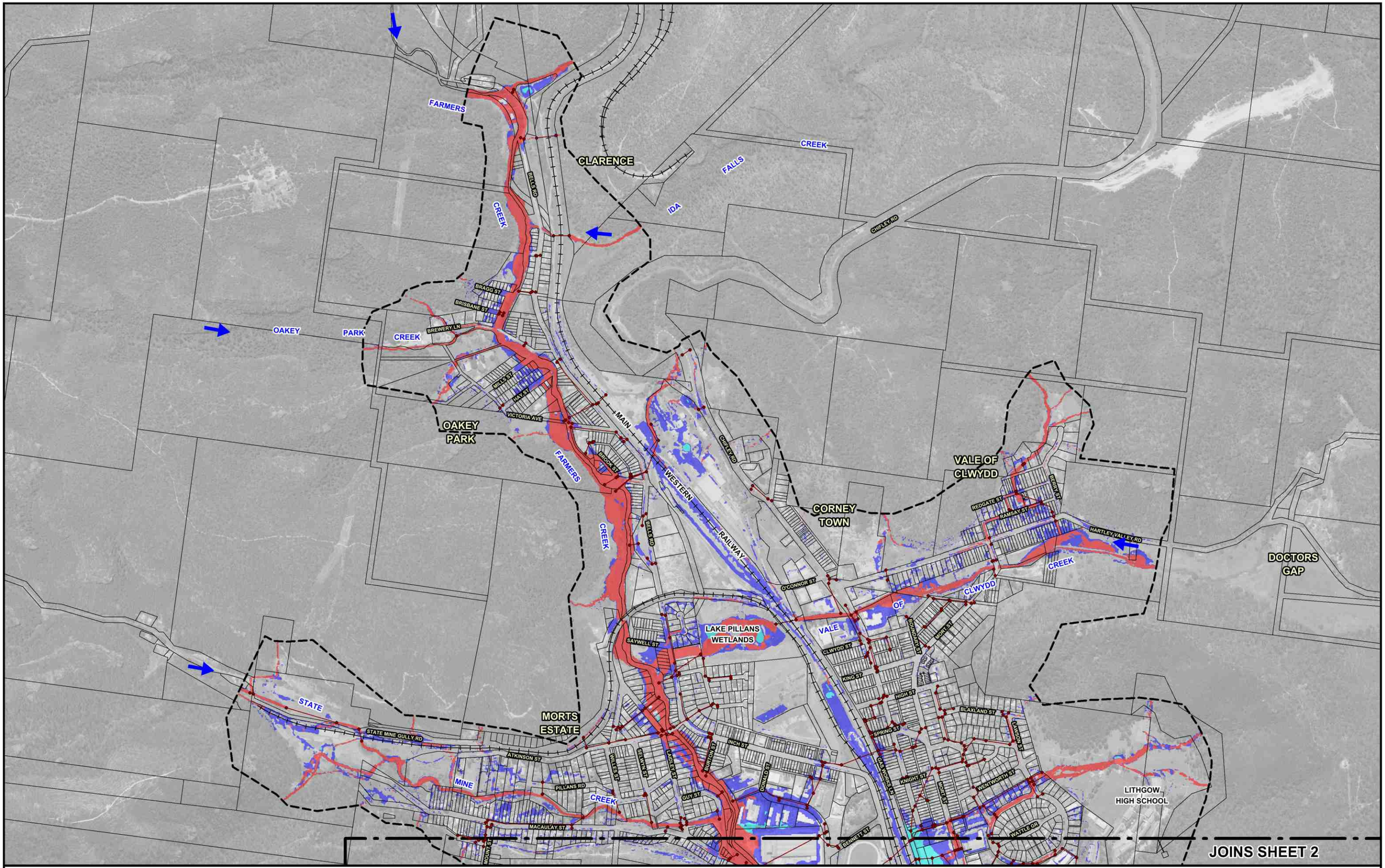
- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- High Provisional Hydraulic Hazard
- Low Provisional Hydraulic Hazard

(Categories based on Figure L2 of NSW Government's Floodplain Development Manual, 2005)

LITHGOW FLOOD STUDY REVIEW

Figure 6.9
(Sheet 4 of 4)

PROVISIONAL FLOOD HAZARD
100 YEAR ARI



120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

NOTE:

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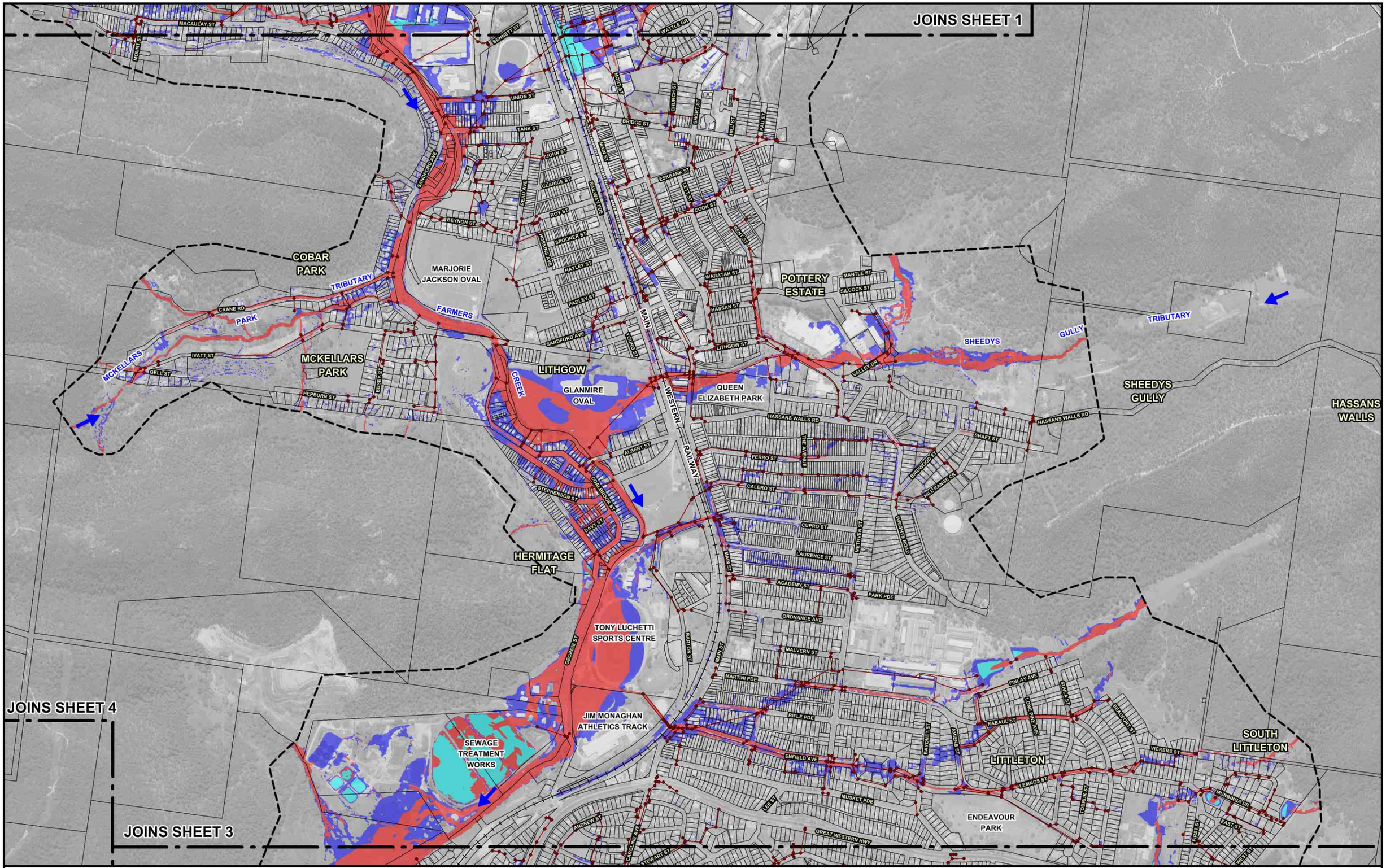
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Floodway
- Flood Storage
- Flood Fringe

LITHGOW FLOOD STUDY REVIEW

Figure 6.10
(Sheet 1 of 4)

HYDRAULIC CATEGORISATION OF FLOODPLAIN
100 YEAR ARI



120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

NOTE:

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

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LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Floodway
- Flood Storage
- Flood Fringe

LITHGOW FLOOD STUDY REVIEW

Figure 6.10
(Sheet 2 of 4)

HYDRAULIC CATEGORISATION OF FLOODPLAIN
100 YEAR ARI

JOINS SHEET 2

JOINS SHEET 4

JOINS INSET

INSET

JOINS MAIN WINDOW

ENDEAVOUR PARK

GREAT WESTERN HWY

ANDREW ST

CAROLINE AVE

STEWART ST

TWEED RD

INNER CR

LOCKYER ST

LANDA ST

EAST ST

WEST ST

BOWENFELS

RAILWAY

FOLLAGA AVE

COOERWULL RD

WESTERN

MAIN

GREAT WESTERN HWY

FARMERS

CREEK

GOOD

LUCK

HOLLOW

JAMES O'DONNELL DRIVE

LITHGOW HOSPITAL

GOLDSMITH DR

BINGARA PL

ROBINIA DR

WOODLANDS DR

KIRKLEY ST

ROBERTSON ST

KIRBY AVE

THORNTON AVE

HILLCREST AVE

SOUTH BOWENFELS

TRIBUTARY

SOUTH

BOWENFELS

STOCKADE CL

SURVEYORS WAY

MAGPIE HOLLOW RD

FARMERS

CREEK

N

120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

NOTE:

The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3m 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.

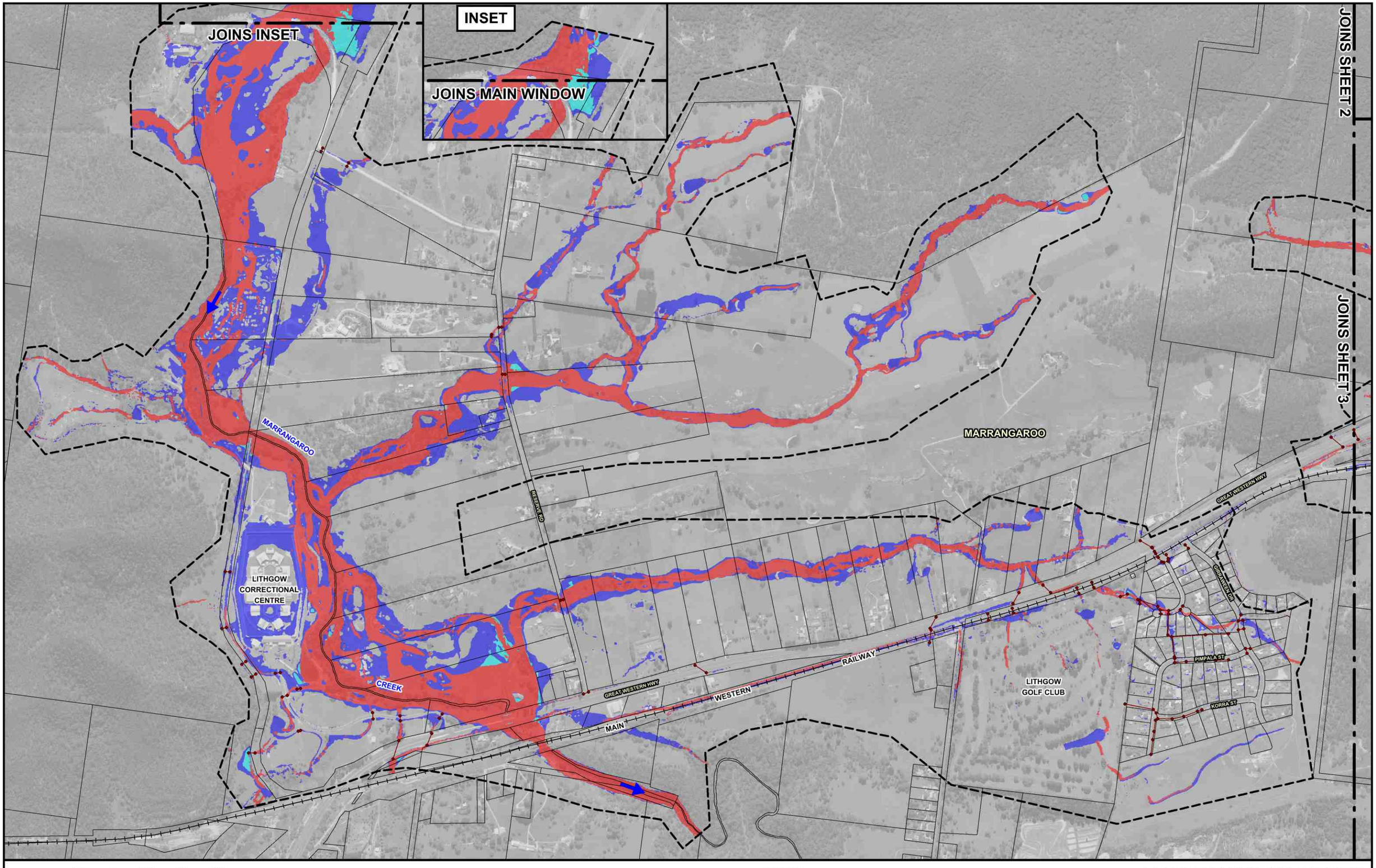
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Extent of Recent Subdivision Development. Details of New Stormwater Drainage System have not been Incorporated in Farmers Creek TUFLOW Model.
- Floodway
- Flood Storage
- Flood Fringe

LITHGOW FLOOD STUDY REVIEW

Figure 6.10
(Sheet 3 of 4)

HYDRAULIC CATEGORISATION OF FLOODPLAIN
100 YEAR ARI



N

120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

NOTE:

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

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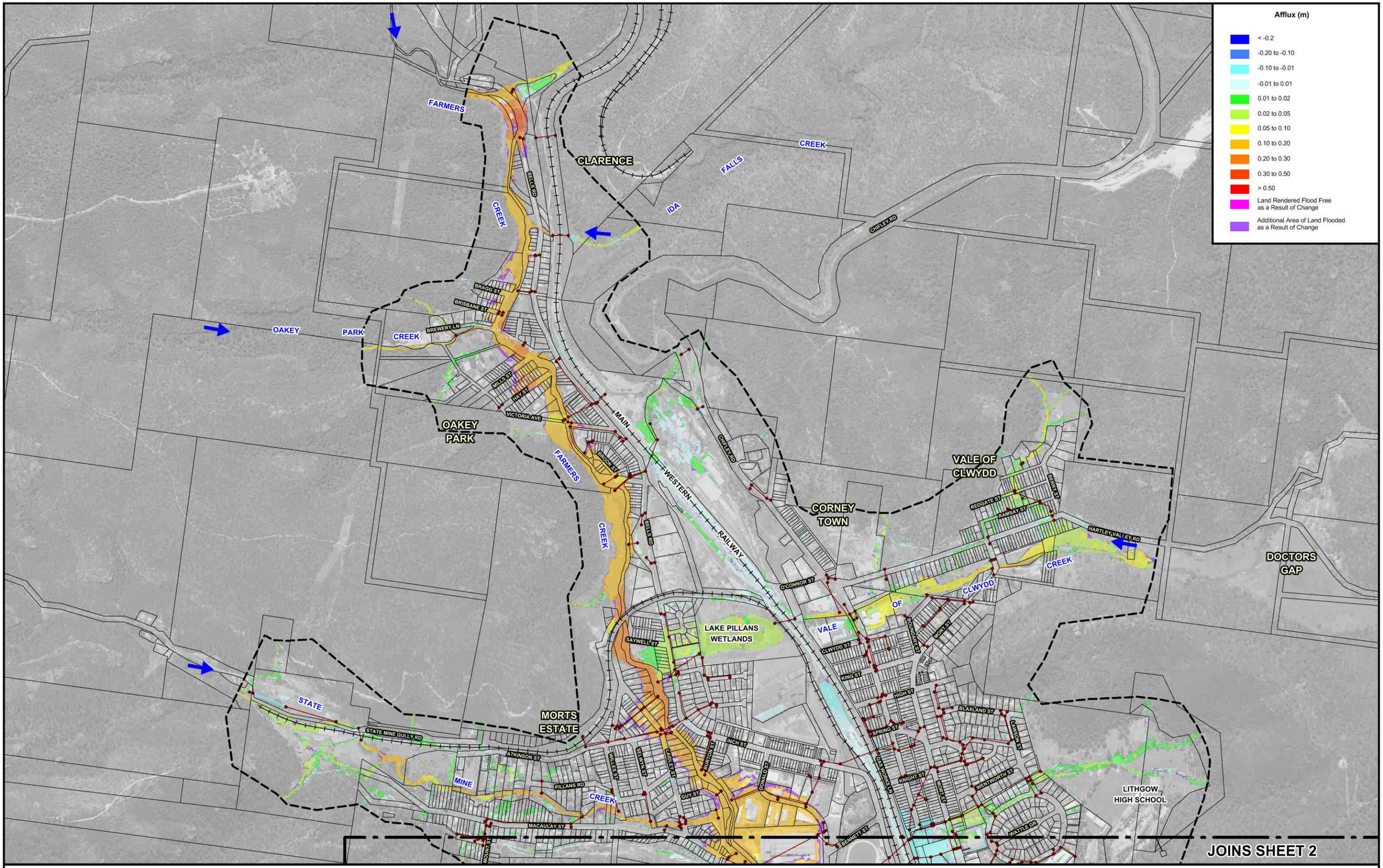
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Floodway
- Flood Storage
- Flood Fringe

LITHGOW FLOOD STUDY REVIEW

Figure 6.10
(Sheet 4 of 4)

HYDRAULIC CATEGORISATION OF FLOODPLAIN
100 YEAR ARI



N

120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

NOTE:

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

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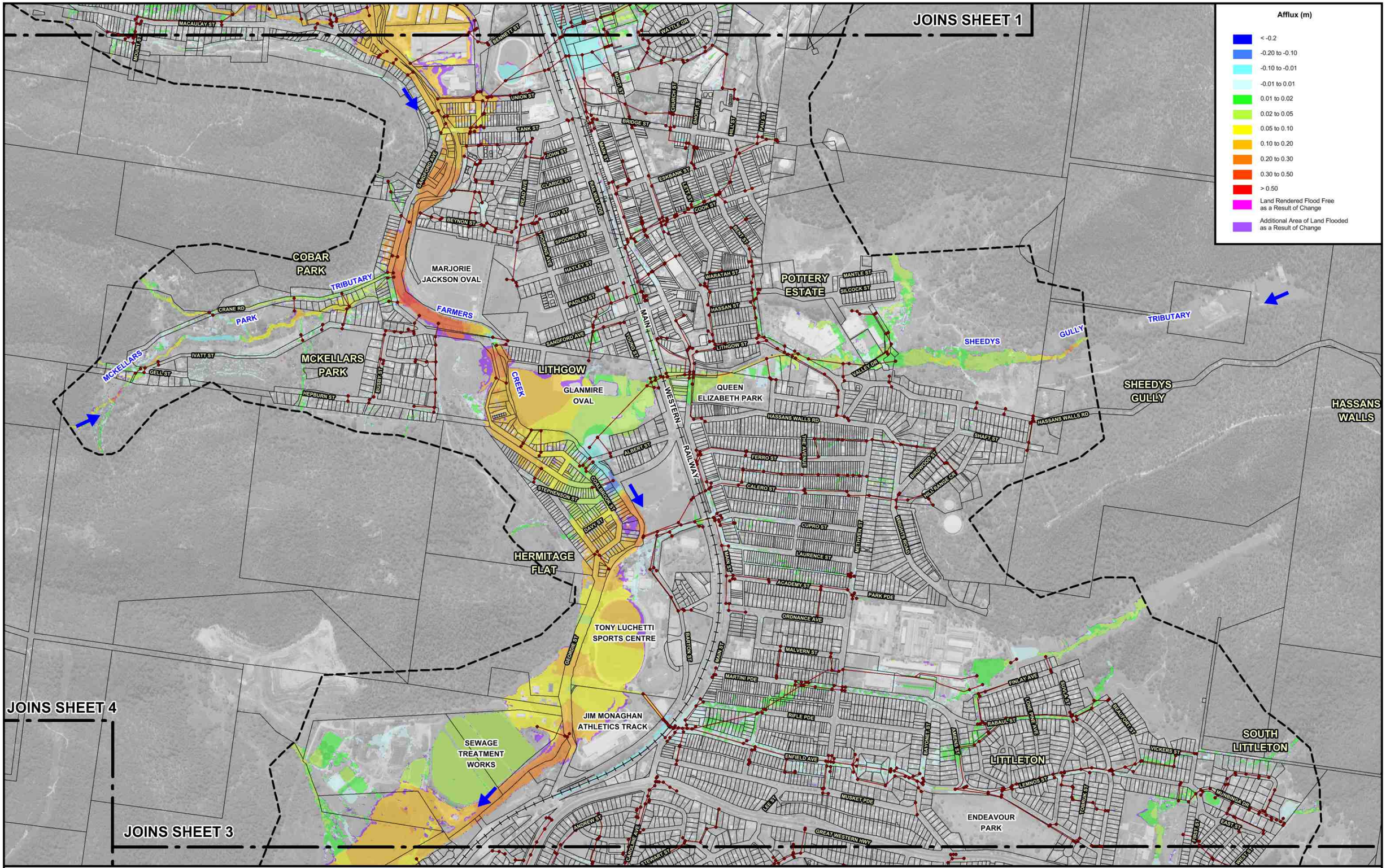
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network

LITHGOW FLOOD STUDY REVIEW

Figure 6.11
(Sheet 1 of 4)

SENSITIVITY OF FLOOD BEHAVIOUR TO 20% INCREASE IN HYDRAULIC ROUGHNESS VALUES
100 YEAR ARI



120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

NOTE:

The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3m 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

- Two-Dimensional Model Boundary
- Modelled Stormwater Network

LITHGOW FLOOD STUDY REVIEW

Figure 6.11
(Sheet 2 of 4)

SENSITIVITY OF FLOOD BEHAVIOUR TO 20% INCREASE IN HYDRAULIC ROUGHNESS VALUES
100 YEAR ARI

JOINS SHEET 2

JOINS SHEET 4

JOINS INSET

JOINS MAIN WINDOW

INSET

ENDEAVOUR PARK

BOWENFELS

LITHGOW HOSPITAL

SOUTH BOWENFELS

GREAT WESTERN HWY

RAILWAY

WESTERN MAIN

ANDREW ST

CAROLINE AVE

STEWART ST

TWEED RD

INNES CR

LOCKYER ST

LANDA ST

EAST ST

WEST ST

FOLLAGA AVE

COOERWULL RD

GREAT WESTERN HWY

BURGARA PL

ROBINIA DR

WOODLANDS DR

COLQUEWE DR

JAMES O'DONNELL DRIVE

ROBERTSON ST

KIRBY AVE

THORNTON AVE

HILLCREST AVE

KIRKLEY ST

STOCKADE CL

SURVEYORS WAY

MAGPIE HOLLOW RD

FARMERS CREEK

GOOD LUCK HOLLOW

TRIBUTARY

BOWENFELS SOUTH

FARMERS CREEK

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

120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

NOTE:

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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.

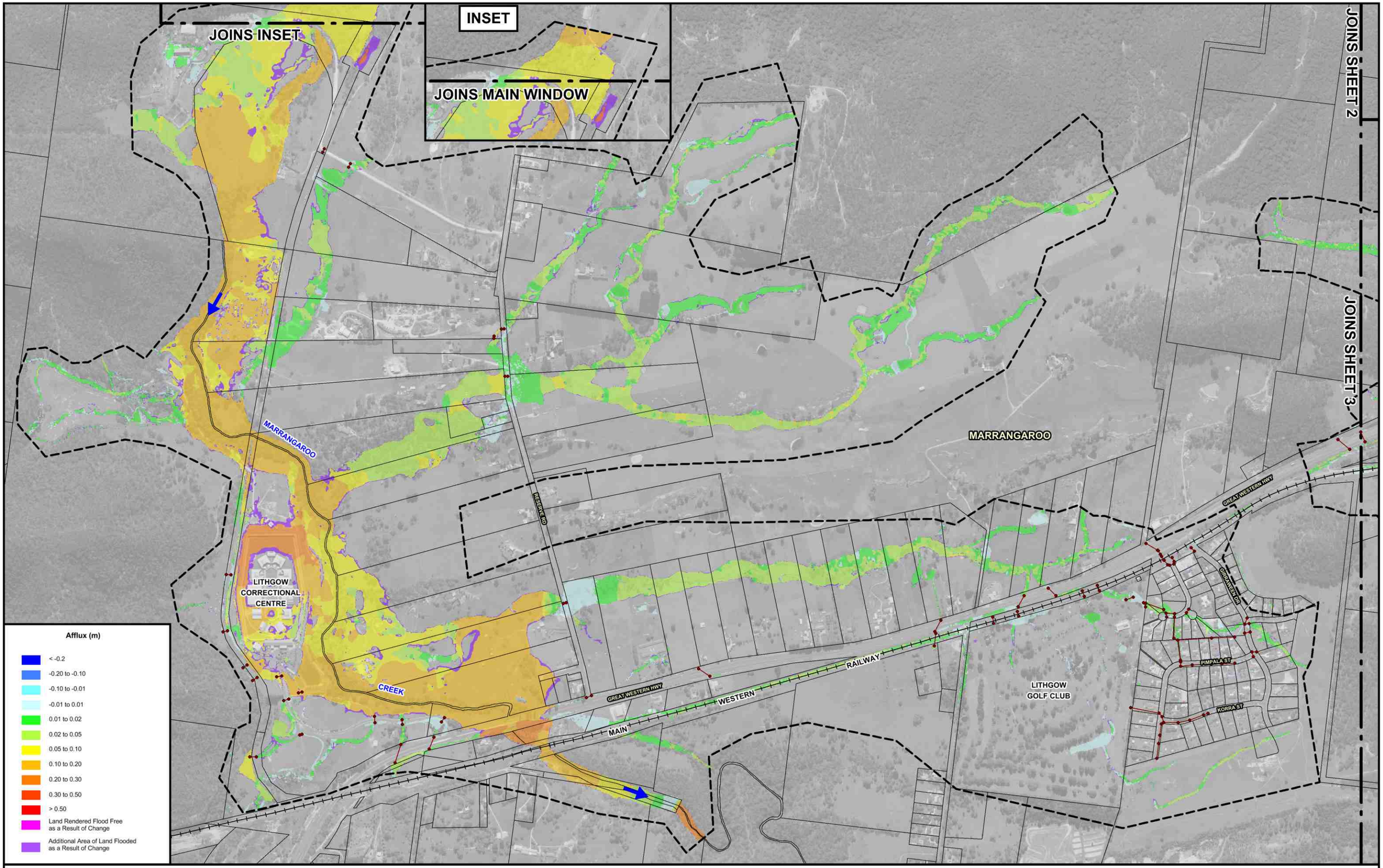
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Extent of Recent Subdivision Development. Details of New Stormwater Drainage System have not been Incorporated in Farmers Creek TUFLOW Model.

LITHGOW FLOOD STUDY REVIEW

Figure 6.11
(Sheet 3 of 4)

SENSITIVITY OF FLOOD BEHAVIOUR TO 20% INCREASE IN HYDRAULIC ROUGHNESS VALUES
100 YEAR ARI



120 0 120 240 360 m

Scale: 1:12,000

NOTE:

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LEGEND

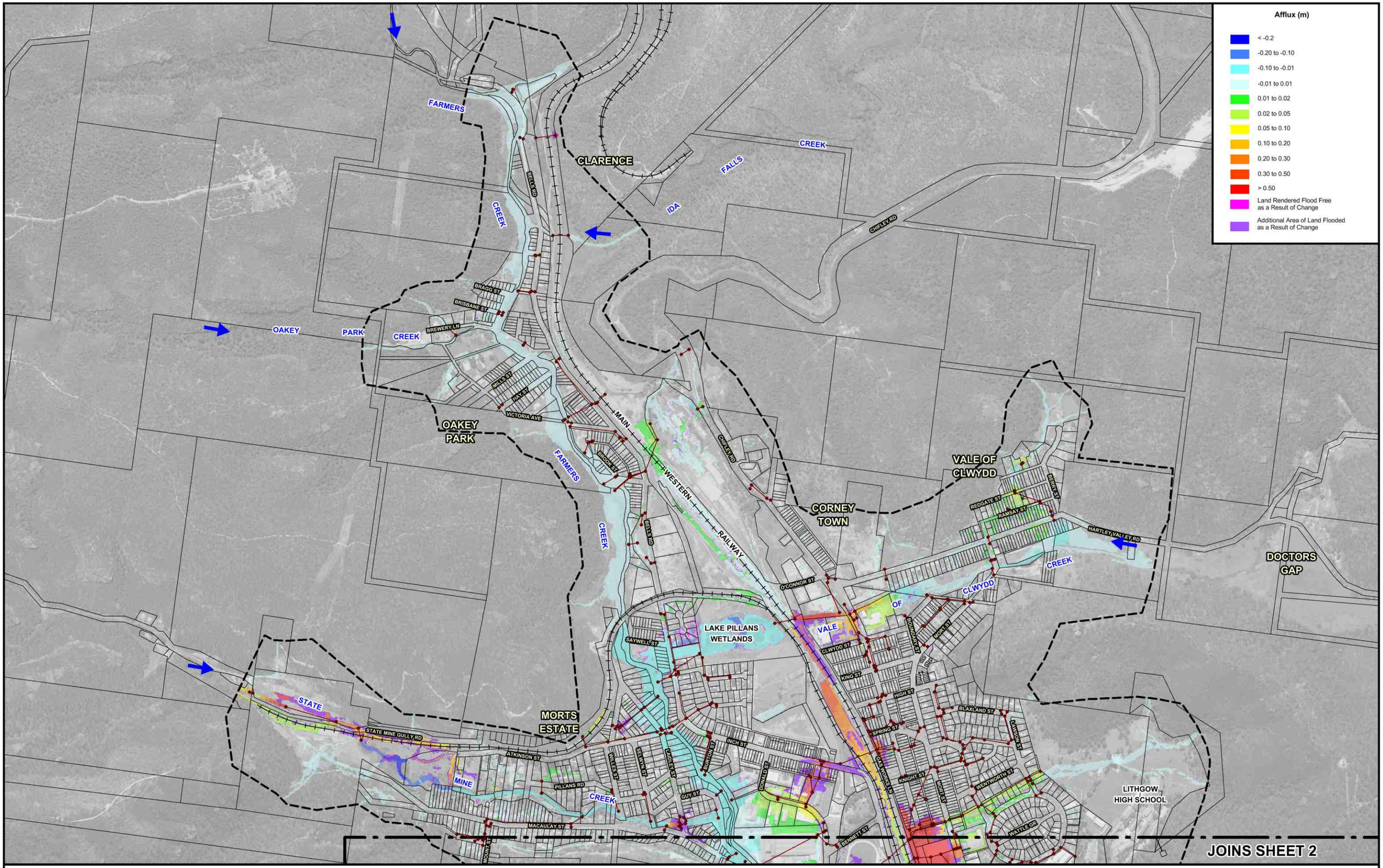
- Two-Dimensional Model Boundary
- Modelled Stormwater Network

Lyall & Associates

LITHGOW FLOOD STUDY REVIEW

Figure 6.11
(Sheet 4 of 4)

SENSITIVITY OF FLOOD BEHAVIOUR TO 20% INCREASE IN HYDRAULIC ROUGHNESS VALUES
100 YEAR ARI



120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

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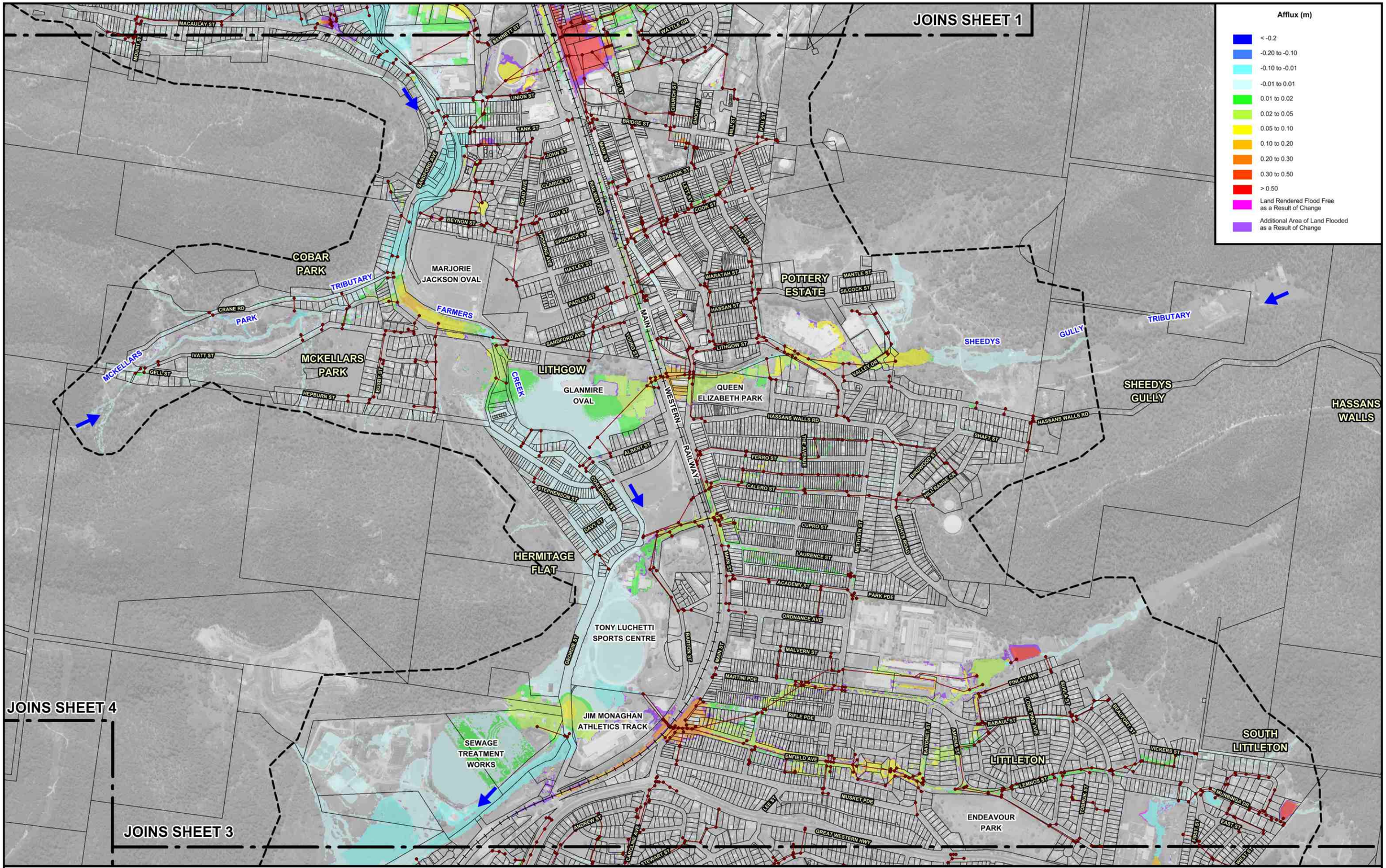
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network

LITHGOW FLOOD STUDY REVIEW

Figure 6.12
(Sheet 1 of 4)

SENSITIVITY OF FLOOD BEHAVIOUR TO A PARTIAL BLOCKAGE OF MAJOR HYDRAULIC STRUCTURES
100 YEAR ARI



120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

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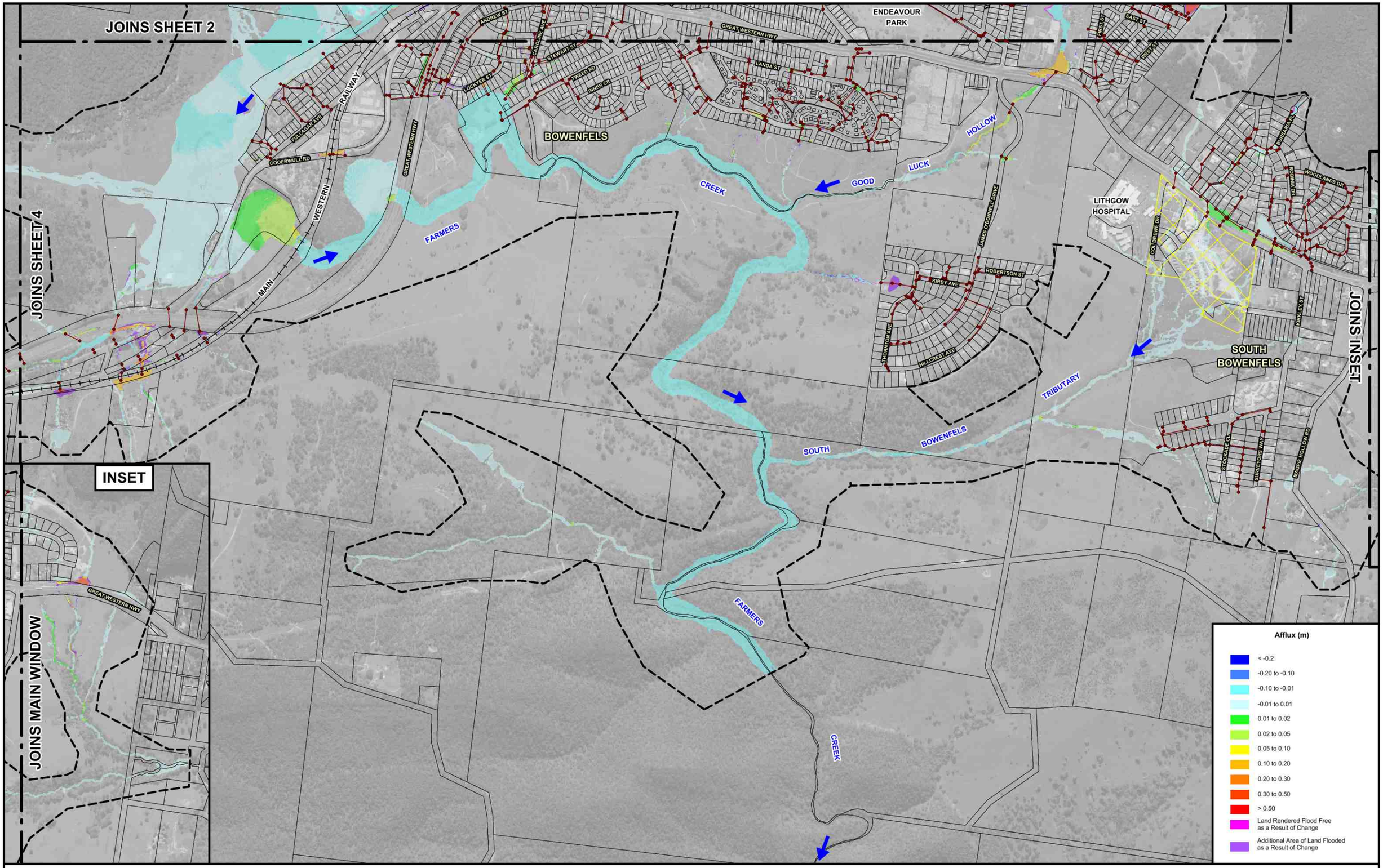
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network

LITHGOW FLOOD STUDY REVIEW

Figure 6.12
(Sheet 2 of 4)

SENSITIVITY OF FLOOD BEHAVIOUR TO A PARTIAL BLOCKAGE OF MAJOR HYDRAULIC STRUCTURES
100 YEAR ARI



120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

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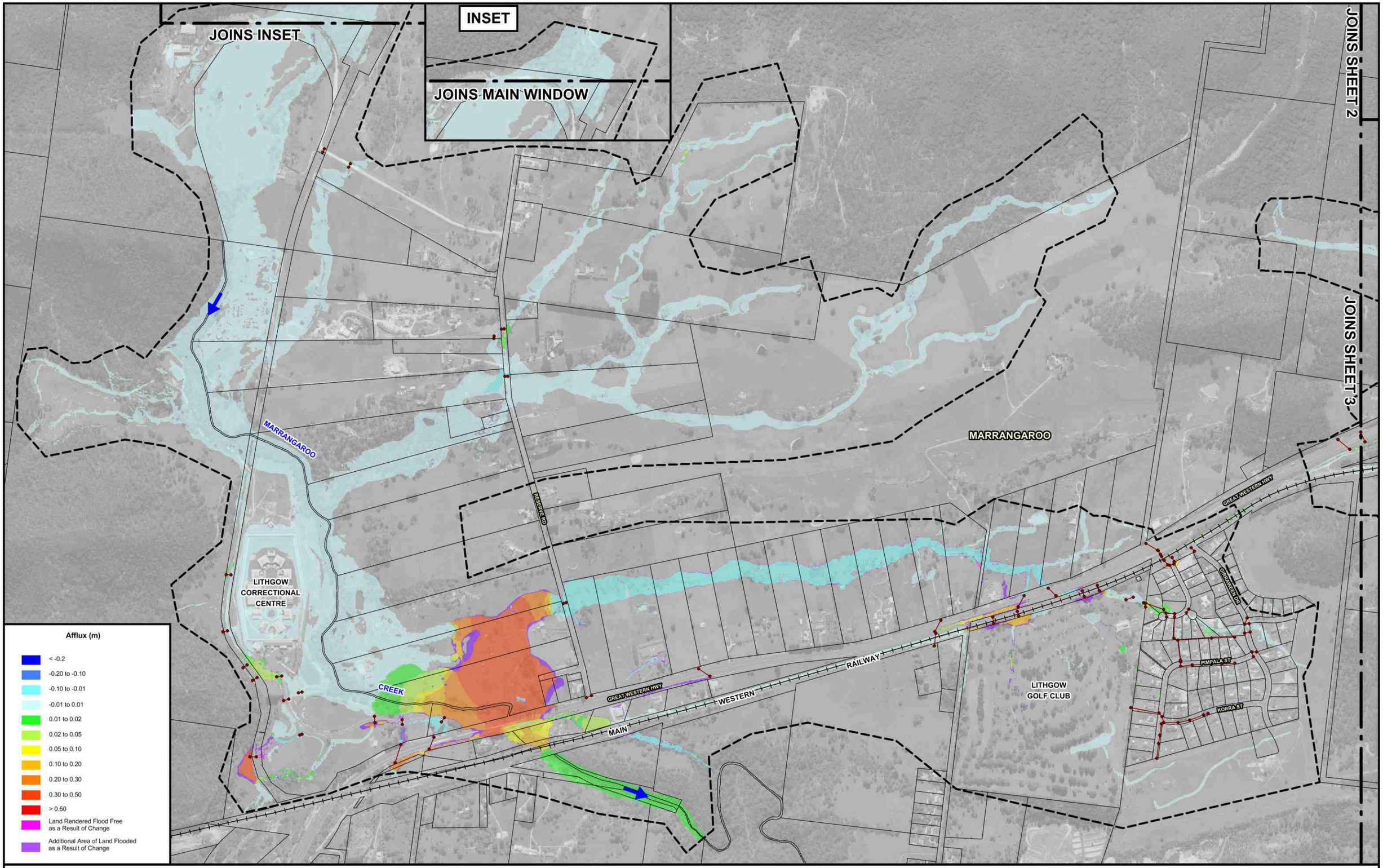
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Extent of Recent Subdivision Development. Details of New Stormwater Drainage System have not been Incorporated in Farmers Creek TUFLOW Model.

LITHGOW FLOOD STUDY REVIEW

Figure 6.12
(Sheet 3 of 4)

SENSITIVITY OF FLOOD BEHAVIOUR TO A PARTIAL BLOCKAGE OF MAJOR HYDRAULIC STRUCTURES
100 YEAR ARI



120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

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LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network

LITHGOW FLOOD STUDY REVIEW

Figure 6.12
(Sheet 4 of 4)

SENSITIVITY OF FLOOD BEHAVIOUR TO A PARTIAL BLOCKAGE OF MAJOR HYDRAULIC STRUCTURES
100 YEAR ARI

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

FARMERS CREEK
CLARENCE
BELLS RD
IDA
FALLS CREEK
CHIPLEY RD
BRAGG ST
BRISBANE ST
BREWERY LN
OAKEY PARK CREEK
OAKEY PARK
HILLS ST
HAY ST
VICTORIA AVE
MAIN
FARMERS CREEK
BROOK ST
WESTERN RAILWAY
BELL RD
CORNEY TOWN
VALE OF CLWYDD
REDGATE ST
RAMSAY ST
HARTLEY VALLEY RD
CREEK
DOCTORS GAP
O'CONNOR ST
CLWYDD VALE OF CLWYDD CREEK
LAKE PILLANS WETLANDS
SAYWELL ST
CLWYDD ST
KING ST
HIGH ST
SPRING ST
BLAXLAND ST
KNIGHT ST
WENTWORTH ST
LITHGOW HIGH SCHOOL
WATTLE DR
BENNETT ST
STATE MINE GULLY RD
STATE MINE GULLY CREEK
ATKINSON ST
MILES ST
SELWYN ST
LAUREL ST
GUY ST
PILLANS RD
MACAULAY ST
MOUNT ST
MORTS ESTATE
JOINS SHEET 2

120 0 120 240 360 m
Scale: 1:12,000

Lyall & Associates

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

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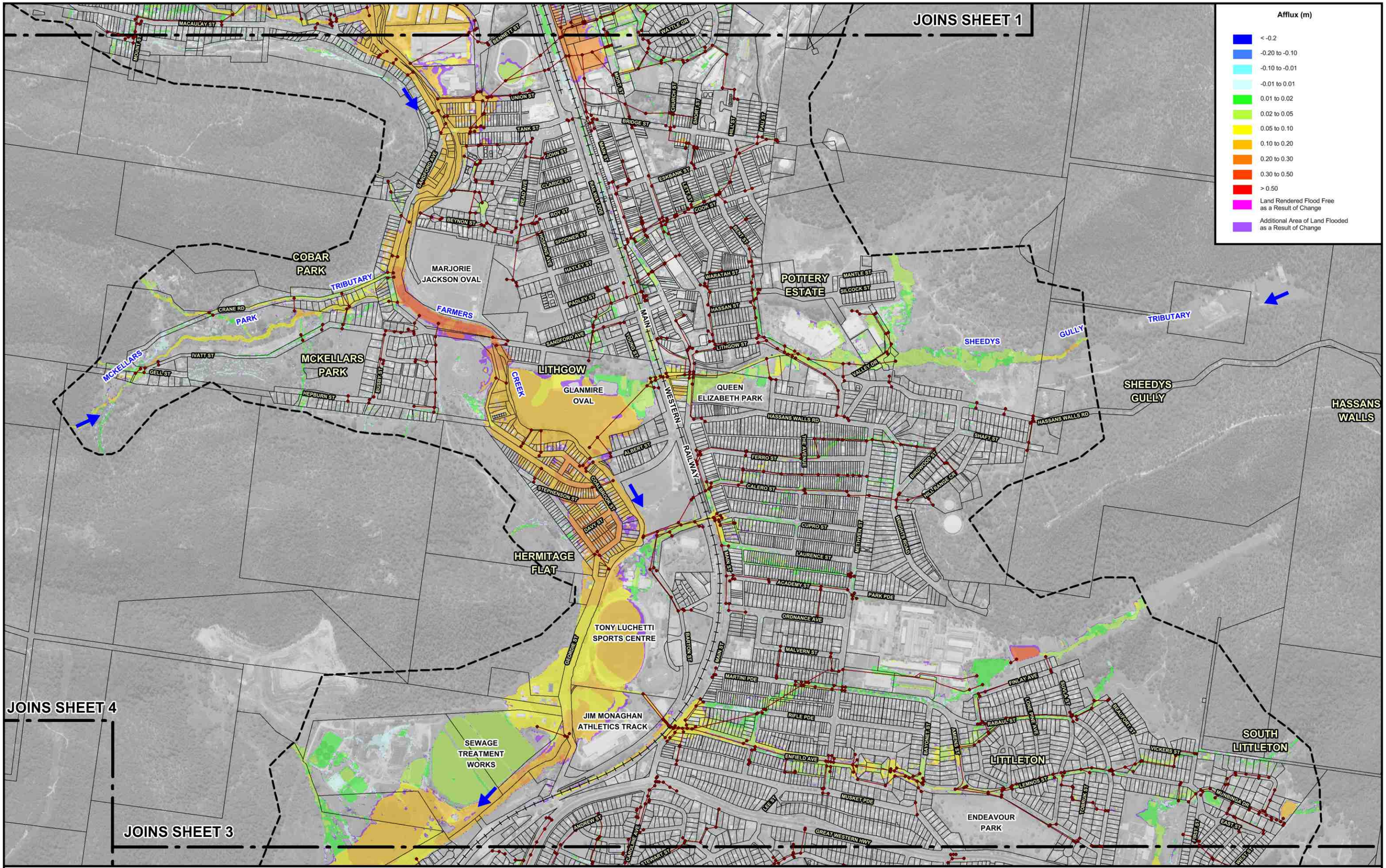
LEGEND
- Two-Dimensional Model Boundary
- Modelled Stormwater Network

LITHGOW FLOOD STUDY REVIEW

Figure 6.13
(Sheet 1 of 4)

SENSITIVITY OF FLOOD BEHAVIOUR TO 10% INCREASE IN RAINFALL INTENSITY
100 YEAR ARI



120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

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LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network

LITHGOW FLOOD STUDY REVIEW

Figure 6.13
(Sheet 2 of 4)

SENSITIVITY OF FLOOD BEHAVIOUR TO 10% INCREASE IN RAINFALL INTENSITY
100 YEAR ARI

JOINS SHEET 2

JOINS SHEET 4

JOINS INSET

JOINS MAIN WINDOW

INSET

ENDEAVOUR PARK

BOWENFELS

LITHGOW HOSPITAL

SOUTH BOWENFELS

GREAT WESTERN HWY

ANDREW ST

CAROLINE AVE

STEWART ST

TWEED RD

INNES CR

LOCKYER ST

LANDA ST

EAST ST

WEST ST

RAILWAY

FOLLAGA AVE

COOERWULL RD

WESTERN

MAIN

GREAT WESTERN HWY

FARMERS

CREEK

GOOD

LUCK

HOLLOW

JAMES O'DONNELL DRIVE

KIRBY AVE

ROBERTSON ST

THORNTON AVE

HILLCREST AVE

GOLDSMITH DR

BURRAWANG AV

ROBINIA DR

WOODLANDS DR

KIRKLEY ST

TRIBUTARY

BOWENFELS

SOUTH

FARMERS

CREEK

STOCKADE CL

SUNFLYERS WAY

MAGPIE HOLLOW RD

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

120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

NOTE:

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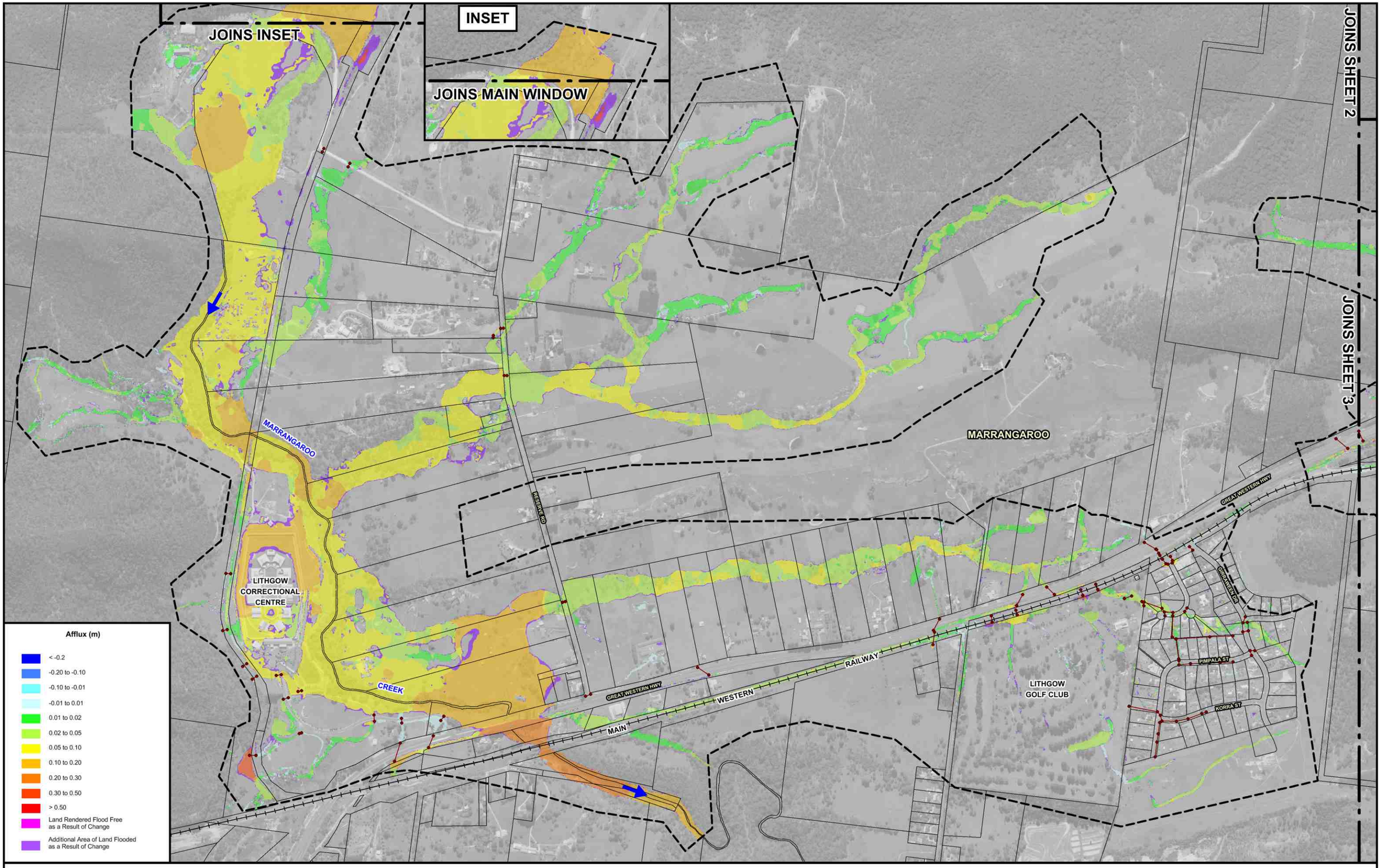
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Extent of Recent Subdivision Development. Details of New Stormwater Drainage System have not been Incorporated in Farmers Creek TUFLOW Model.

LITHGOW FLOOD STUDY REVIEW

Figure 6.13
(Sheet 3 of 4)

SENSITIVITY OF FLOOD BEHAVIOUR TO 10% INCREASE IN RAINFALL INTENSITY
100 YEAR ARI



120 0 120 240 360 m

Scale: 1:12,000

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LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network

LITHGOW FLOOD STUDY REVIEW

Figure 6.13
(Sheet 4 of 4)

SENSITIVITY OF FLOOD BEHAVIOUR TO 10% INCREASE IN RAINFALL INTENSITY
100 YEAR ARI

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
FARMERS CREEK
CLARENCE
FALLS CREEK
IDA
CHIFLEY RD
OAKEY PARK CREEK
OAKEY PARK
BRAGG ST
BRISBANE ST
BREWERY LN
MILLS ST
HAY ST
VICTORIA AVE
MAIN WESTERN RAILWAY
BROOK ST
BELLS RD
CORNEY TOWN
VALE OF CLWYDD
REDGATE ST
RAMSAY ST
HARTLEY VALLEY RD
VALE OF CLWYDD CREEK
DOCTORS GAP
O'CONNOR ST
LAKE PILLANS WETLANDS
SAYWELL ST
CLWYDD ST
KING ST
HIGH ST
BLAXLAND ST
SPRING ST
KNIGHT ST
WENTWORTH ST
WATTLE GR
LITHGOW HIGH SCHOOL
STATE MINE GULLY RD
STATE MINE CREEK
MORTS ESTATE
ATKINSON ST
PILLANS RD
MACAULAY ST
INCH ST
GUY ST
BENNETT ST
JOINS SHEET 2
120 0 120 240 360 m
Scale: 1:12,000

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LEGEND

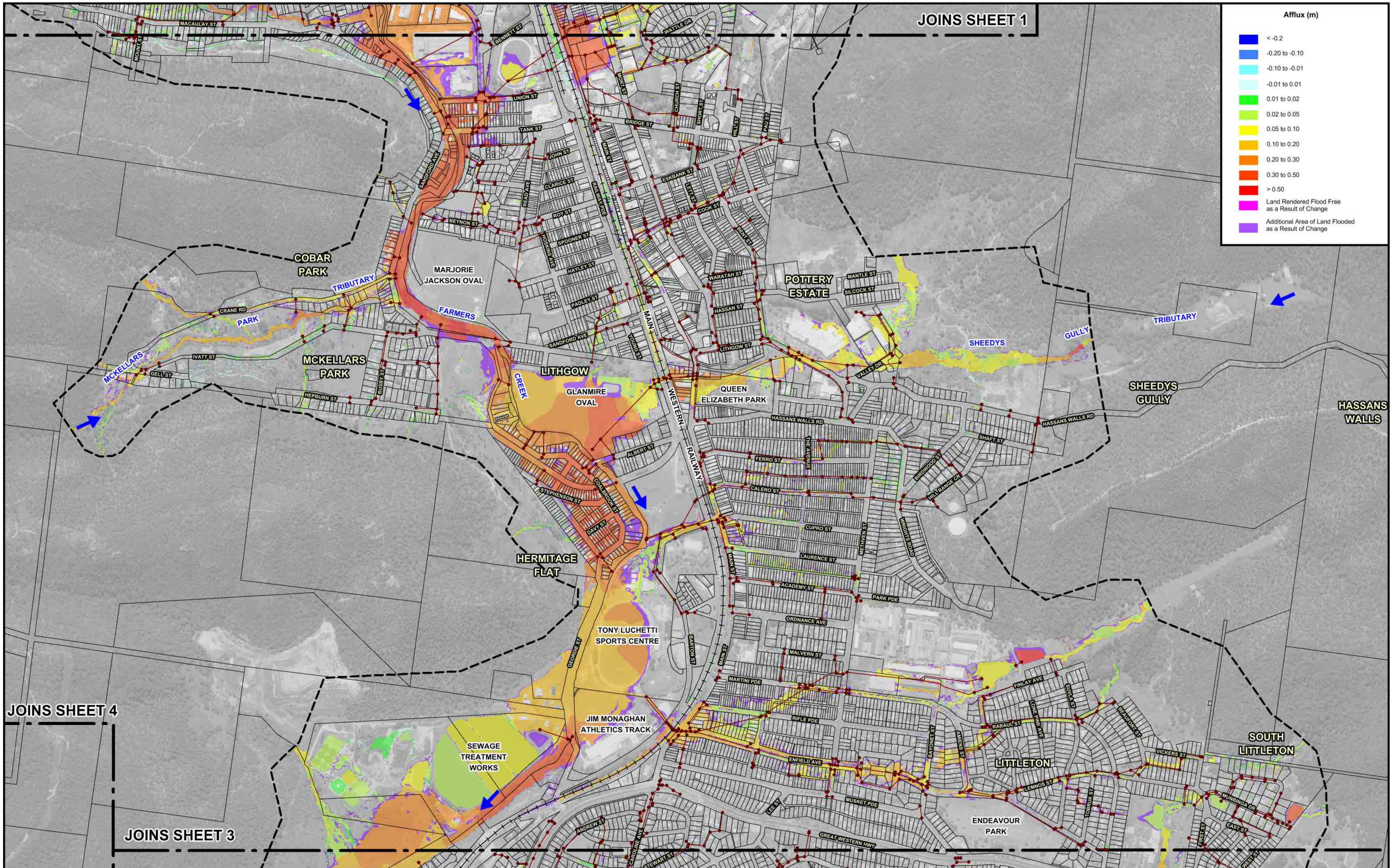
- Two-Dimensional Model Boundary
- Modelled Stormwater Network

Lyall & Associates

LITHGOW FLOOD STUDY REVIEW

Figure 6.14
(Sheet 1 of 4)

SENSITIVITY OF FLOOD BEHAVIOUR TO 30% INCREASE IN RAINFALL INTENSITY
100 YEAR ARI



120 0 120 240 360 m

Scale: 1:12,000

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LEGEND

Two-Dimensional Model Boundary

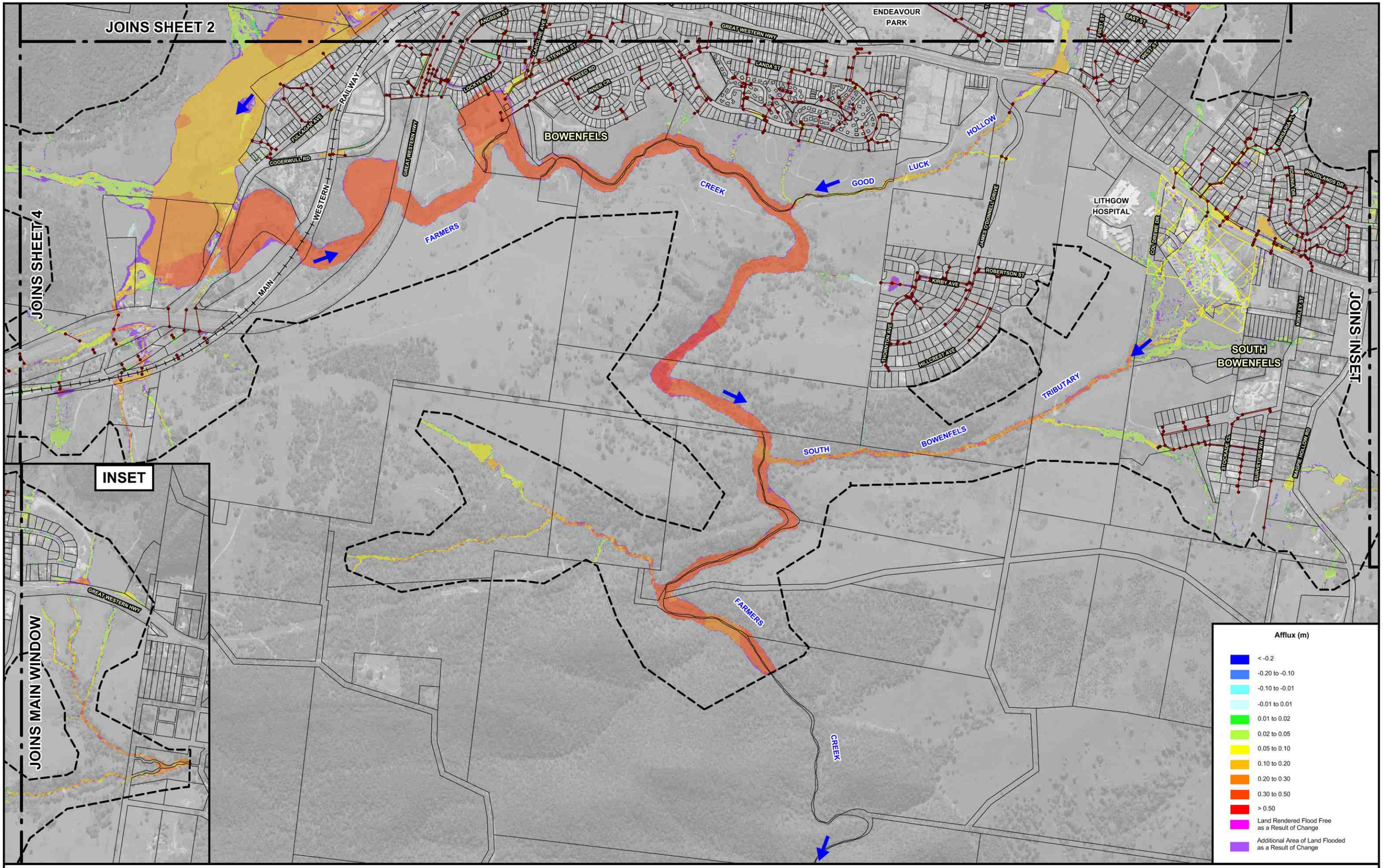
Modelled Stormwater Network

Lyall & Associates

LITHGOW FLOOD STUDY REVIEW

Figure 6.14
(Sheet 2 of 4)

SENSITIVITY OF FLOOD BEHAVIOUR TO 30% INCREASE IN RAINFALL INTENSITY
100 YEAR ARI



120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

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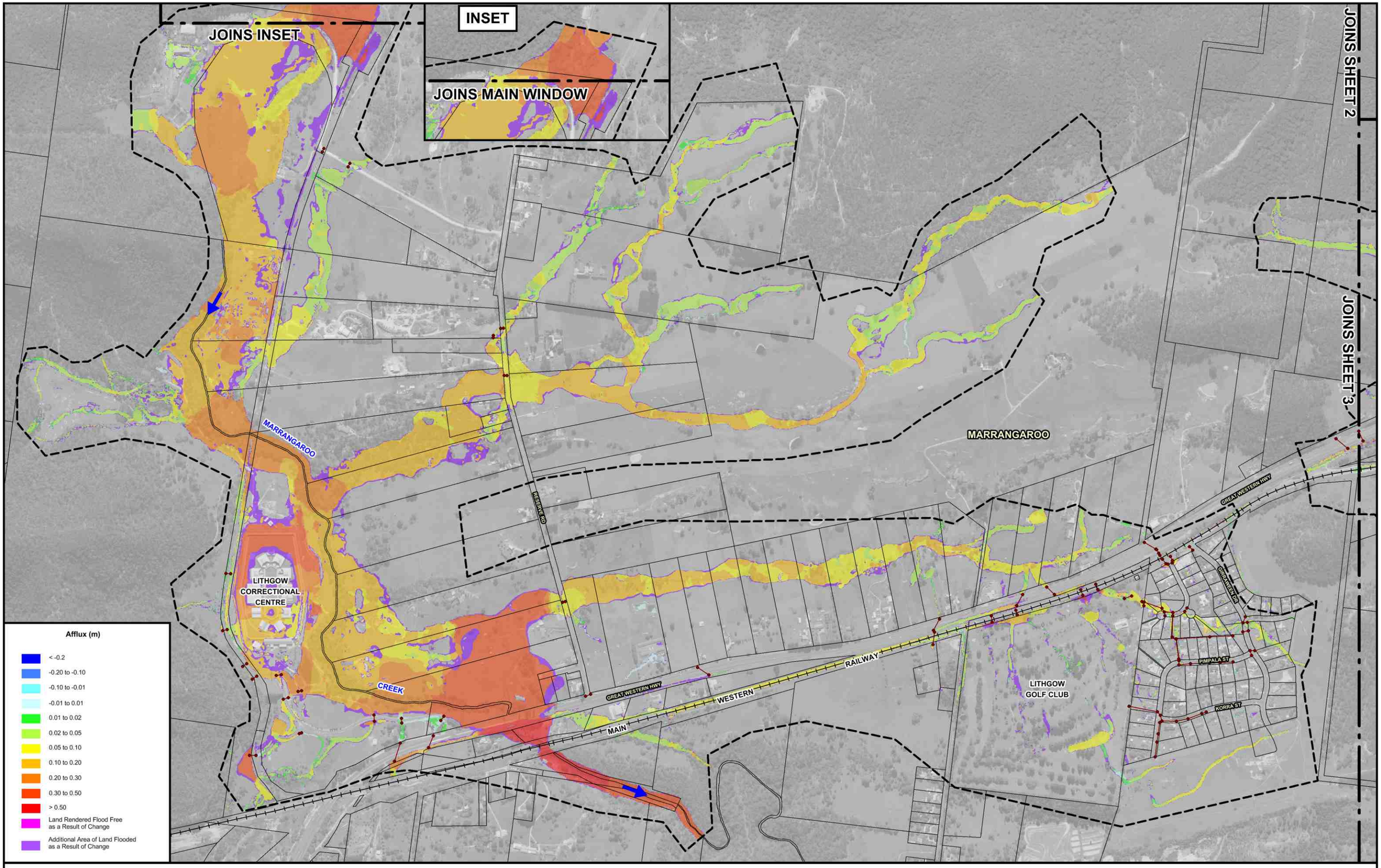
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Extent of Recent Subdivision Development. Details of New Stormwater Drainage System have not been Incorporated in Farmers Creek TUFLOW Model.

LITHGOW FLOOD STUDY REVIEW

Figure 6.14
(Sheet 3 of 4)

SENSITIVITY OF FLOOD BEHAVIOUR TO 30% INCREASE IN RAINFALL INTENSITY
100 YEAR ARI



120 0 120 240 360 m

Scale: 1:12,000

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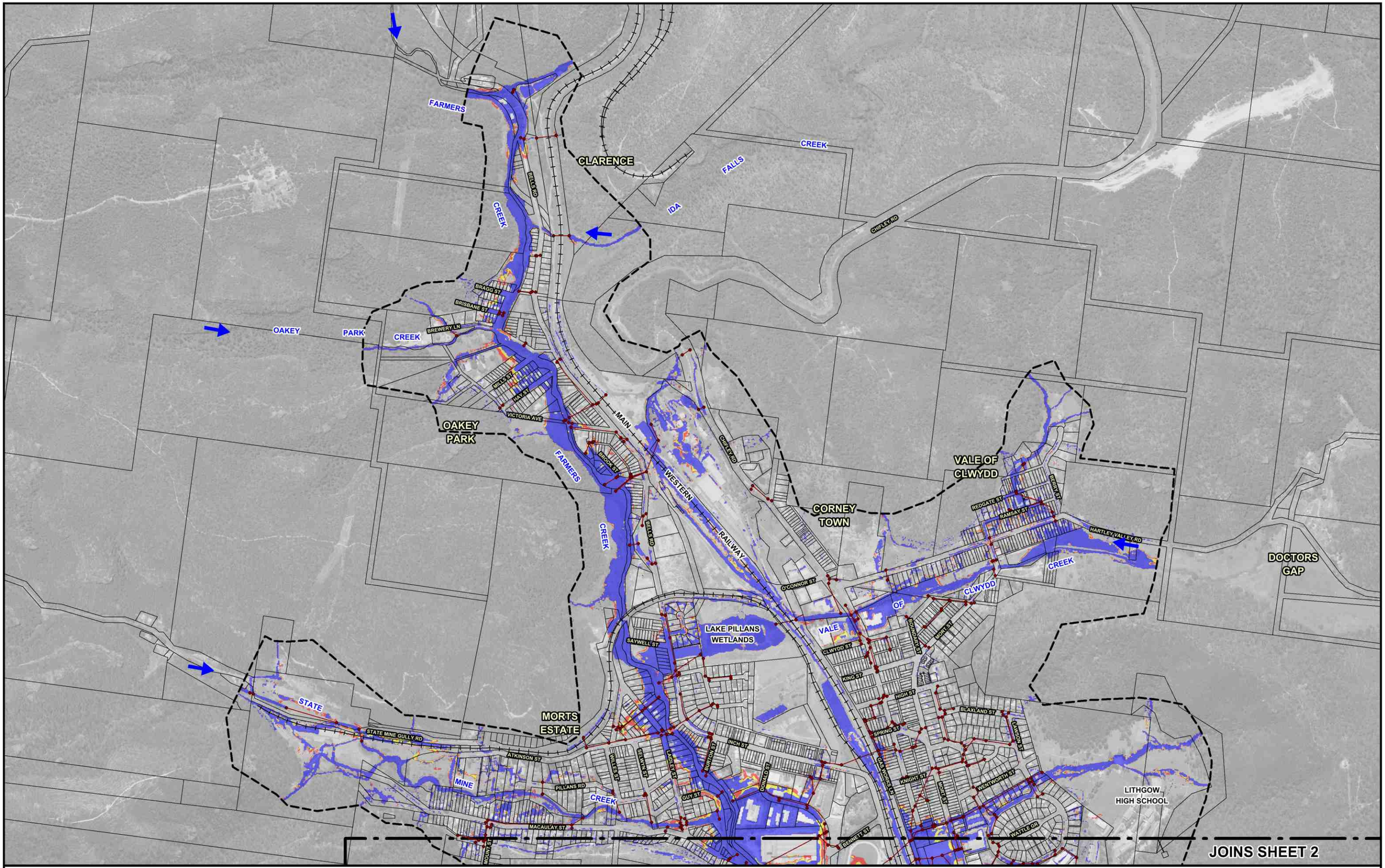
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network

LITHGOW FLOOD STUDY REVIEW

Figure 6.14
(Sheet 4 of 4)

SENSITIVITY OF FLOOD BEHAVIOUR TO 30% INCREASE IN RAINFALL INTENSITY
100 YEAR ARI



N

120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

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LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- 100 Year ARI
- 100 Year ARI Rainfall Increased by 10%
- 100 Year ARI Rainfall Increased by 30%

LITHGOW FLOOD STUDY REVIEW

Figure 6.15
(Sheet 1 of 4)

IMPACT OF INCREASED RAINFALL INTENSITIES ON EXTENT OF FLOODING
100 YEAR ARI

JOINS SHEET 1

JOINS SHEET 4

JOINS SHEET 3

COBAR PARK

MARJORIE JACKSON OVAL

MCKELLARS PARK

LITHGOW GLANMIRE OVAL

QUEEN ELIZABETH PARK

POTTERY ESTATE

HERMITAGE FLAT

TONY LUCHETTI SPORTS CENTRE

JIM MONAGHAN ATHLETICS TRACK

SEWAGE TREATMENT WORKS

LITTLETON

SOUTH LITTLETON

ENDEAVOUR PARK

SHEEDYS GULLY

HASSANS WALLS

MACAULAY ST

UNION ST

BRIDGE ST

MAIN ST

WESTERN RAILWAY

FARMERS CREEK

MCKELLARS PARK TRIBUTARY

SHEEDYS GULLY TRIBUTARY

HASSANS WALLS RD

GREAT WESTERN HWY

0 120 240 360 m

Scale: 1:12,000

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LEGEND

Two-Dimensional Model Boundary

Modelled Stormwater Network

100 Year ARI

100 Year ARI Rainfall Increased by 10%

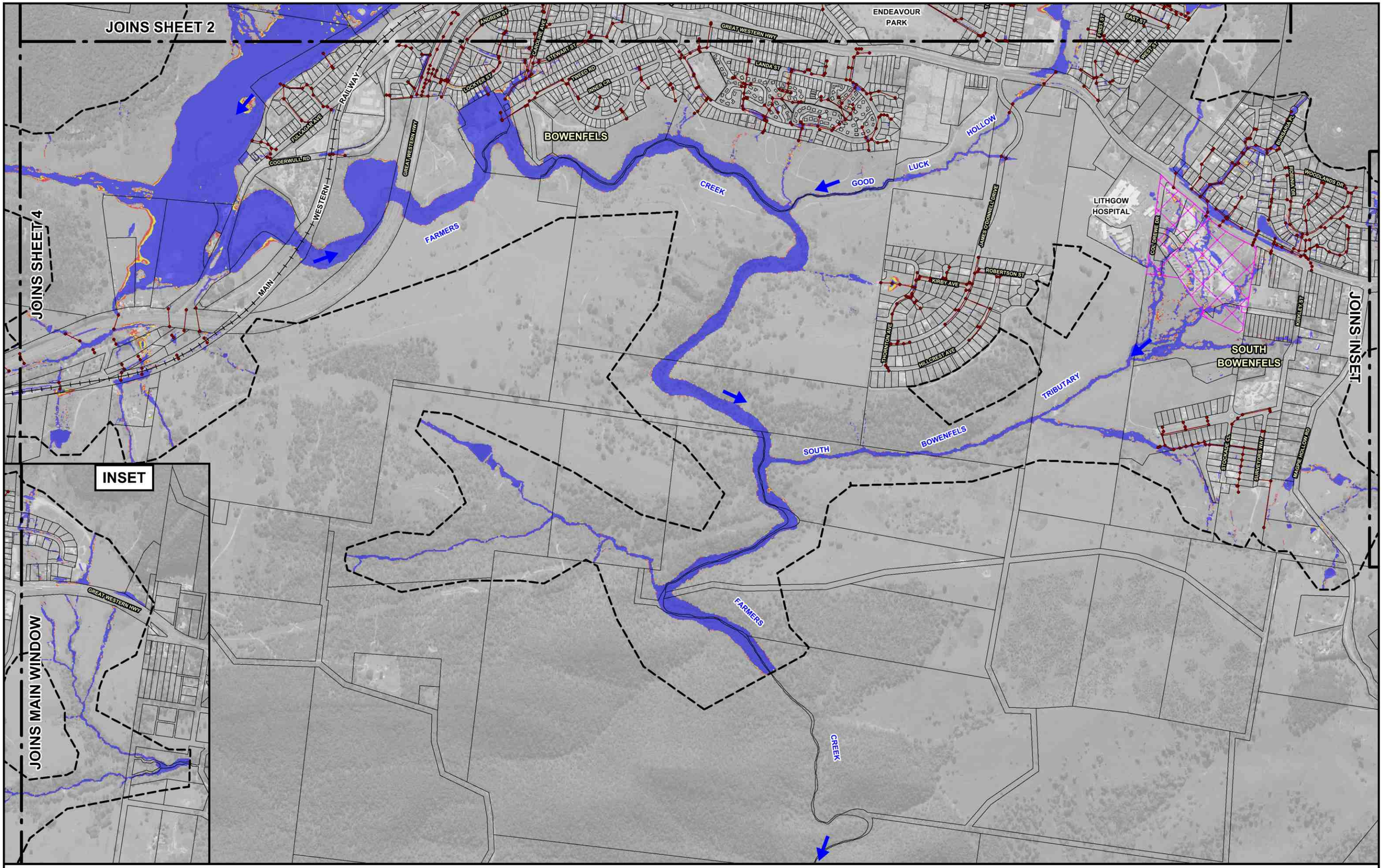
100 Year ARI Rainfall Increased by 30%

Lyall & Associates

LITHGOW FLOOD STUDY REVIEW

Figure 6.15
(Sheet 2 of 4)

IMPACT OF INCREASED RAINFALL INTENSITIES ON EXTENT OF FLOODING
100 YEAR ARI



N

120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

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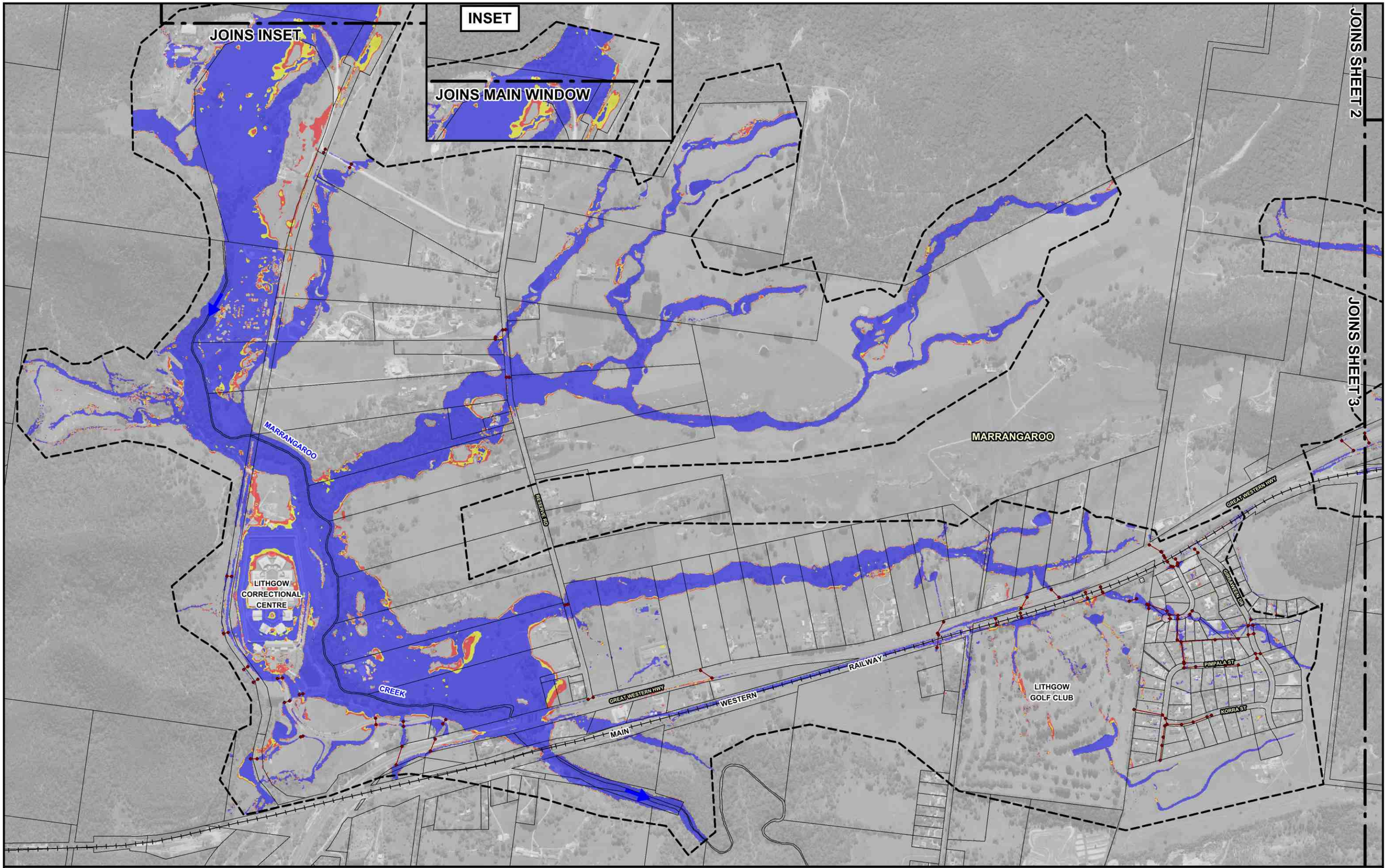
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Extent of Recent Subdivision Development. Details of New Stormwater Drainage System have not been Incorporated in Farmers Creek TUFLOW Model.
- 100 Year ARI
- 100 Year ARI Rainfall Increased by 10%
- 100 Year ARI Rainfall Increased by 30%

LITHGOW FLOOD STUDY REVIEW

Figure 6.15
(Sheet 3 of 4)

IMPACT OF INCREASED RAINFALL INTENSITIES ON EXTENT OF FLOODING
100 YEAR ARI



N

120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

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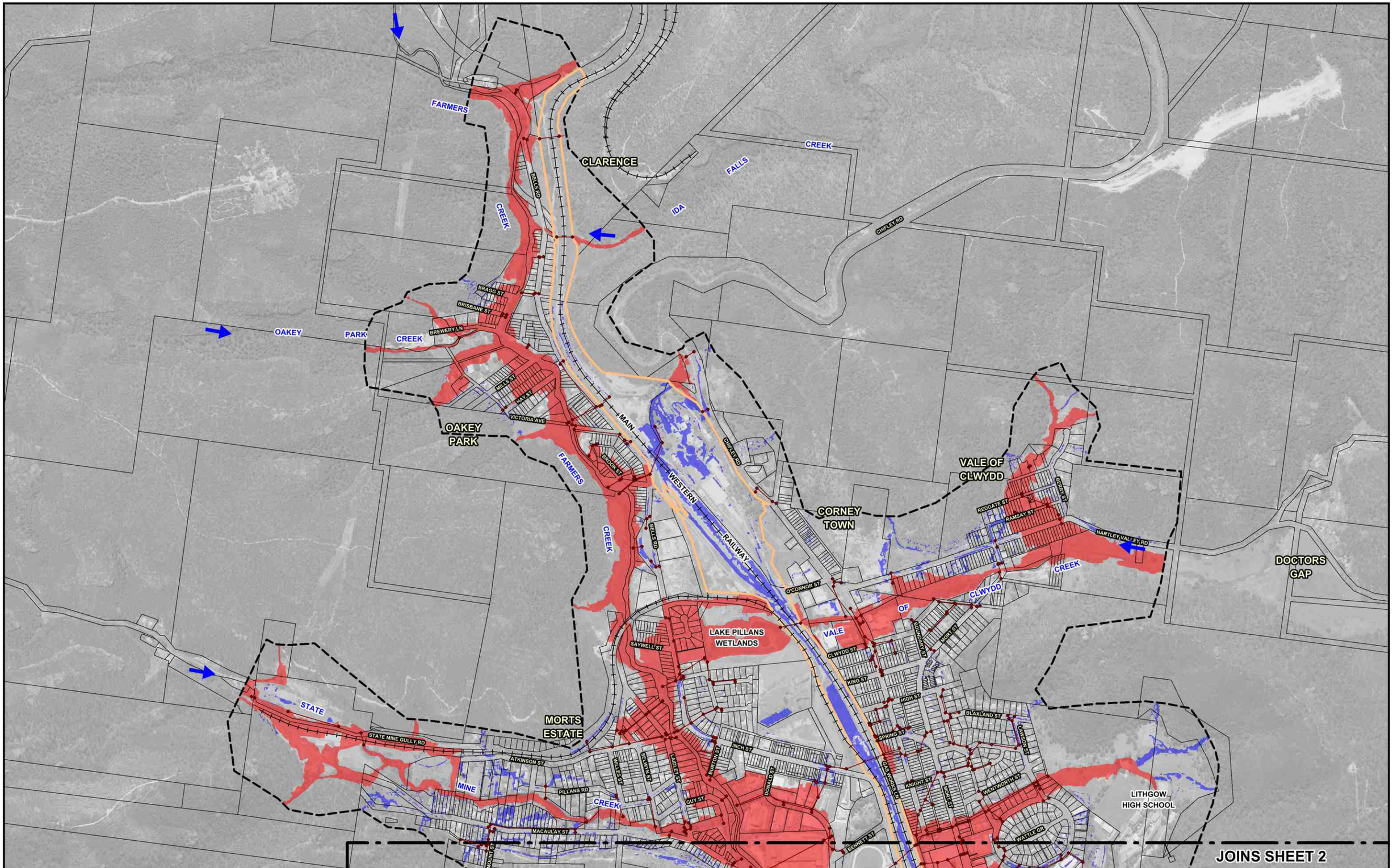
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- 100 Year ARI
- 100 Year ARI Rainfall Increased by 10%
- 100 Year ARI Rainfall Increased by 30%

LITHGOW FLOOD STUDY REVIEW

Figure 6.15
(Sheet 4 of 4)

IMPACT OF INCREASED RAINFALL INTENSITIES ON EXTENT OF FLOODING
100 YEAR ARI



120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

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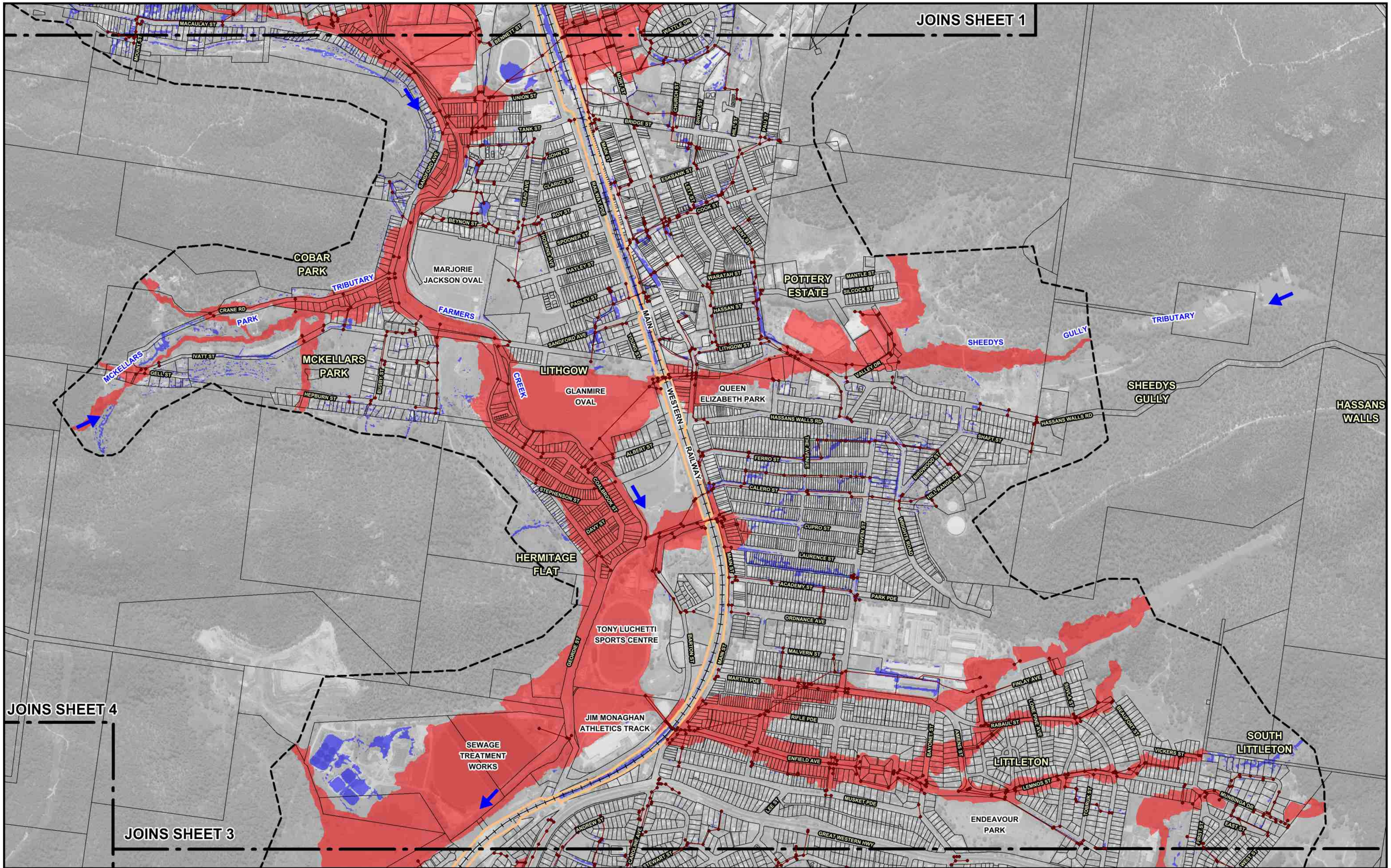
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Interim Flood Planning Area (Not Shown In Railway Land)
- Land Outside Interim Flood Planning Area Subject To Overland Flow Deeper Than 100 mm
- Extent Of Railway Land

LITHGOW FLOOD STUDY REVIEW

Figure 6.16
(Sheet 1 of 4)

INTERIM FLOOD PLANNING AREA
MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW AFFECTED AREAS



JOINS SHEET 1
JOINS SHEET 4
JOINS SHEET 3
COBAR PARK
MARJORIE JACKSON OVAL
POTTERY ESTATE
TRIBUTARY
FARMERS
CREEK
PARK
MCKELLARS
MCKELLARS PARK
LITHGOW
GLANMIRE OVAL
QUEEN ELIZABETH PARK
SHEEDYS
GULLY
SHEEDYS GULLY
HASSANS WALLS
MAIN
WESTERN
RAILWAY
HERMITAGE FLAT
TONY LUCHETTI SPORTS CENTRE
JIM MONAGHAN ATHLETICS TRACK
SEWAGE TREATMENT WORKS
LITTLETON
SOUTH LITTLETON
ENDEAVOUR PARK
MACAULAY ST
BENNETT ST
UNION ST
TANK ST
JOHN ST
CLARICE ST
ROY ST
BEYNON ST
SPOONER ST
HAYLEY ST
PADLEY ST
SANDFORD AVE
BRIDGE ST
ESKBANK ST
COOK ST
WARATAH ST
HASSAN ST
LITHGOW ST
MANTLE ST
SILCOCK ST
VALLEY DR
CRANE RD
IVATT ST
GELL ST
HEPBURN ST
HASSANS WALLS RD
SHAFT ST
FERRO ST
CALERO ST
CUPRO ST
LAURENCE ST
ACADEMY ST
PARK PDE
ORDNANCE AVE
MALVERN ST
MARTINI PDE
RIFLE PDE
ENFIELD AVE
MUSKET PDE
GREAT WESTERN HWY
LEMNOS ST
RABAUL ST
FINLAY AVE
VICKERS ST
MUNBINGA DR
EAST ST
STEPHENSON ST
COALBROOK ST
DAVY ST
ALBERT ST
GEORGE ST
BARTON ST
ANDREW ST
STEWART ST
LEE ST

120	0	120	240	360 m

Scale: 1:12,000

NOTE:

The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3m 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

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Interim Flood Planning Area (Not Shown In Railway Land)
- Land Outside Interim Flood Planning Area Subject To Overland Flow Deeper Than 100 mm
- Extent Of Railway Land

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LITHGOW FLOOD STUDY REVIEW

Figure 6.16
(Sheet 2 of 4)

INTERIM FLOOD PLANNING AREA
MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW AFFECTED AREAS

JOINS SHEET 2

JOINS SHEET 4

JOINS INSET

JOINS MAIN WINDOW

INSET

ENDEAVOUR PARK

BOWENFELS

LITHGOW HOSPITAL

SOUTH BOWENFELS

GREAT WESTERN HWY

RAILWAY

WESTERN

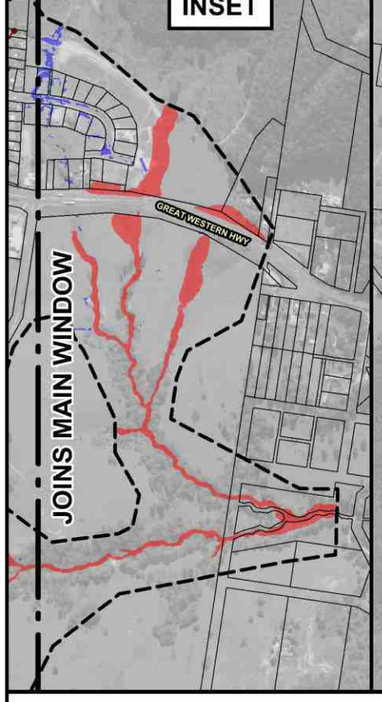
MAIN

FARMERS CREEK

GOOD LUCK HOLLOW

SOUTH BOWENFELS TRIBUTARY

ANDREW ST
CAROLINE AVE
STEWART ST
TWEED RD
INNES CR
LOCKYER ST
LANDA ST
EAST ST
WEST ST
FOLLAGA AVE
COOERWULL RD
JAMES O'DONNELL DRIVE
KIRBY AVE
ROBERTSON ST
THORNTON AVE
HILLCREST AVE
GOLDSMITH DR
BINGARA PL
ROBINIA DR
WOODLANDS DR
KIRKLEY ST
STOCKADE CL
SURVEYORS WAY
MAGPIE HOLLOW RD



N

120 0 120 240 360 m

Scale: 1:12,000

Lyall & Associates

NOTE:

The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3m 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.

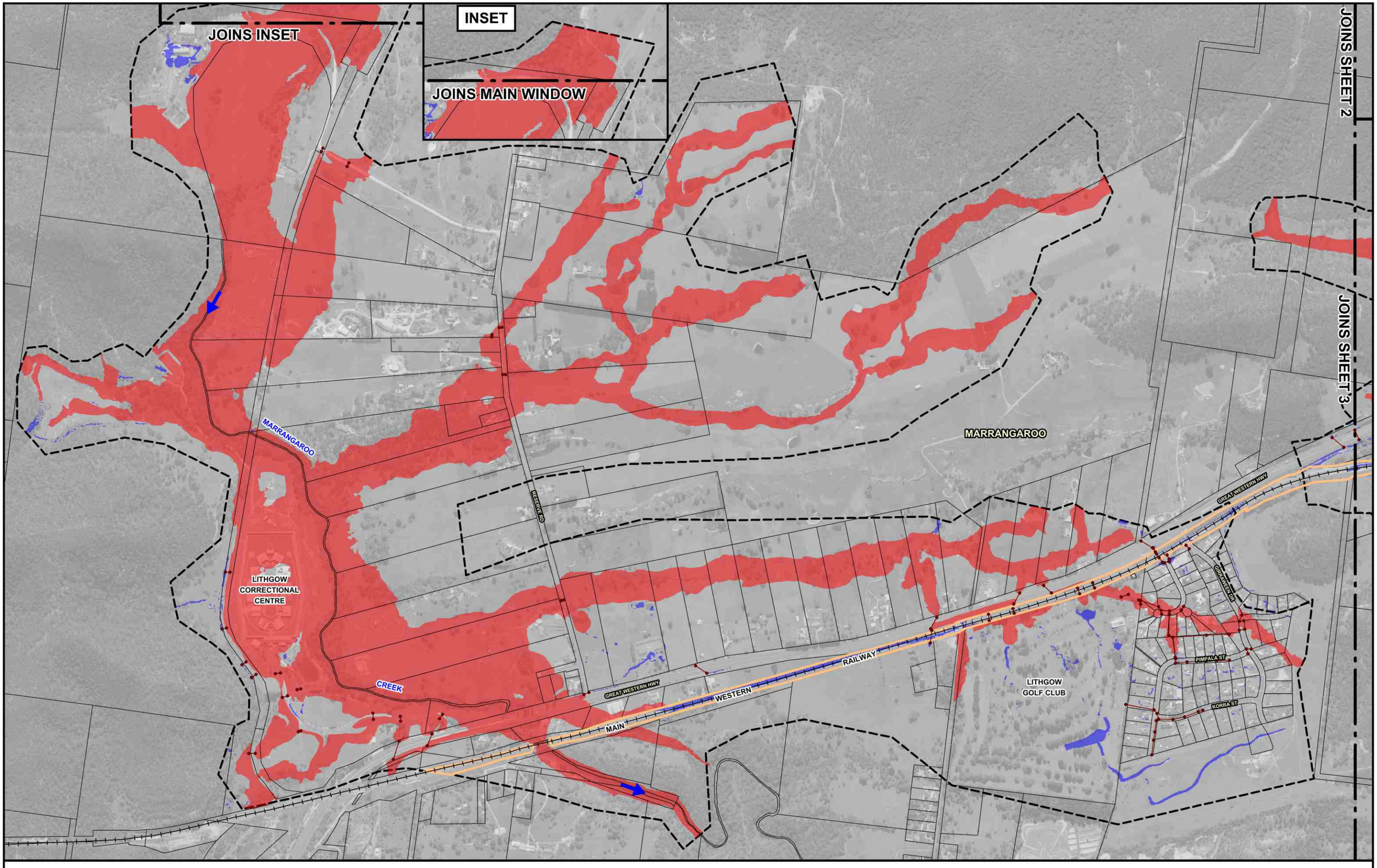
LEGEND

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Extent of Recent Subdivision Development. Details of New Stormwater Drainage System have not been Incorporated in Farmers Creek TUFLOW Model.
- Interim Flood Planning Area (Not Shown In Railway Land)
- Land Outside Interim Flood Planning Area Subject To Overland Flow Deeper Than 100 mm
- Extent Of Railway Land

LITHGOW FLOOD STUDY REVIEW

Figure 6.16
(Sheet 3 of 4)

INTERIM FLOOD PLANNING AREA
MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW AFFECTED AREAS



120 0 120 240 360 m

Scale: 1:12,000

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NOTE:

The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3m 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

- Two-Dimensional Model Boundary
- Modelled Stormwater Network
- Interim Flood Planning Area (Not Shown In Railway Land)
- Land Outside Interim Flood Planning Area Subject To Overland Flow Deeper Than 100 mm
- Extent Of Railway Land

LITHGOW FLOOD STUDY REVIEW

Figure 6.16
(Sheet 4 of 4)

INTERIM FLOOD PLANNING AREA
MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW AFFECTED AREAS