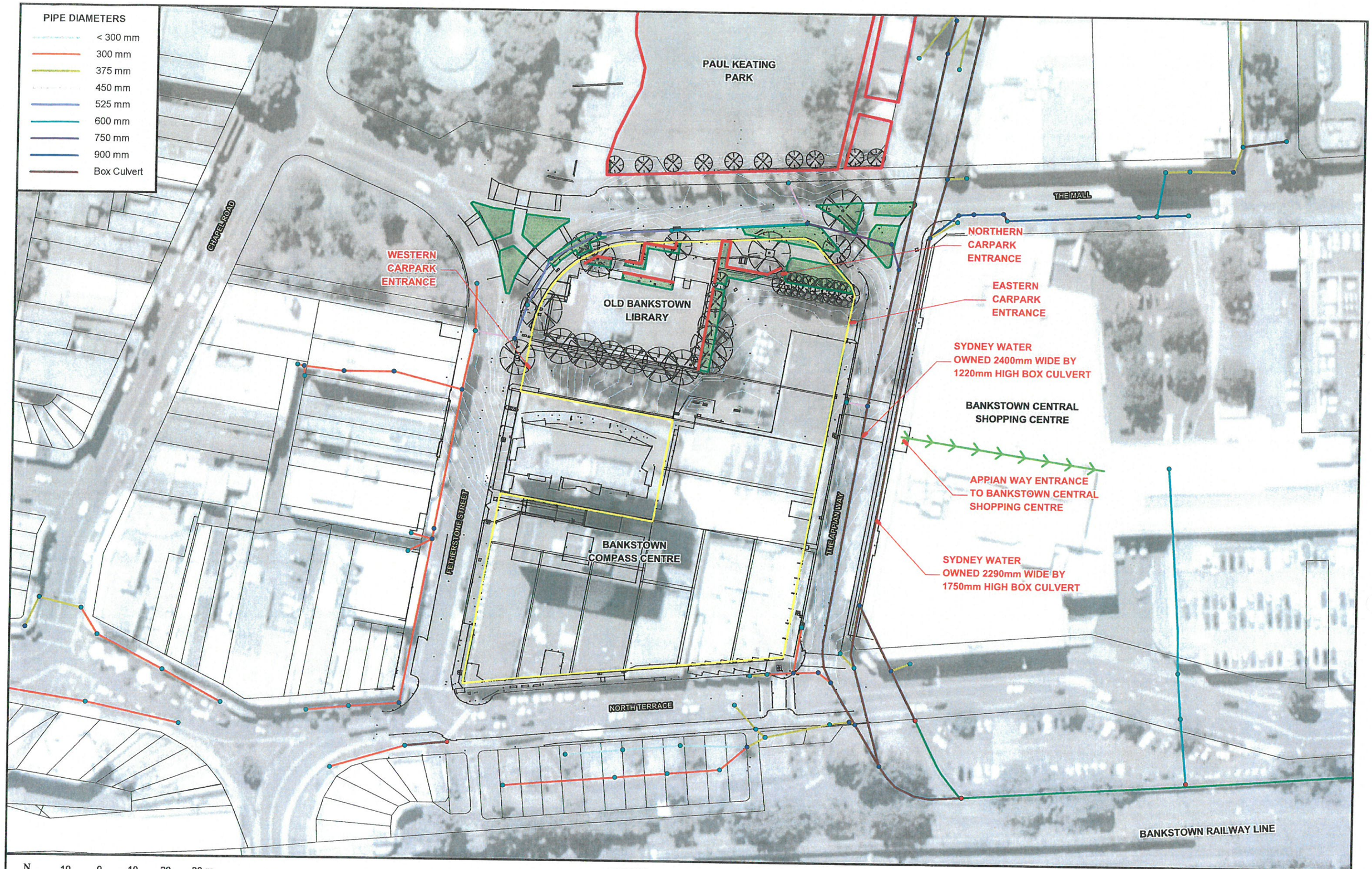
PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 1

LOCATION PLAN



N

10 0 10 20 30 m

Scale: 1:1,000

LEGEND

- Development Site
- Channel
- Inlet Pit
- Junction Pit
- Headwall
- Raised Garden Bed
- Retaining Wall
- Approximate Alignment of Flowpath Through Bankstown Central Shopping Centre

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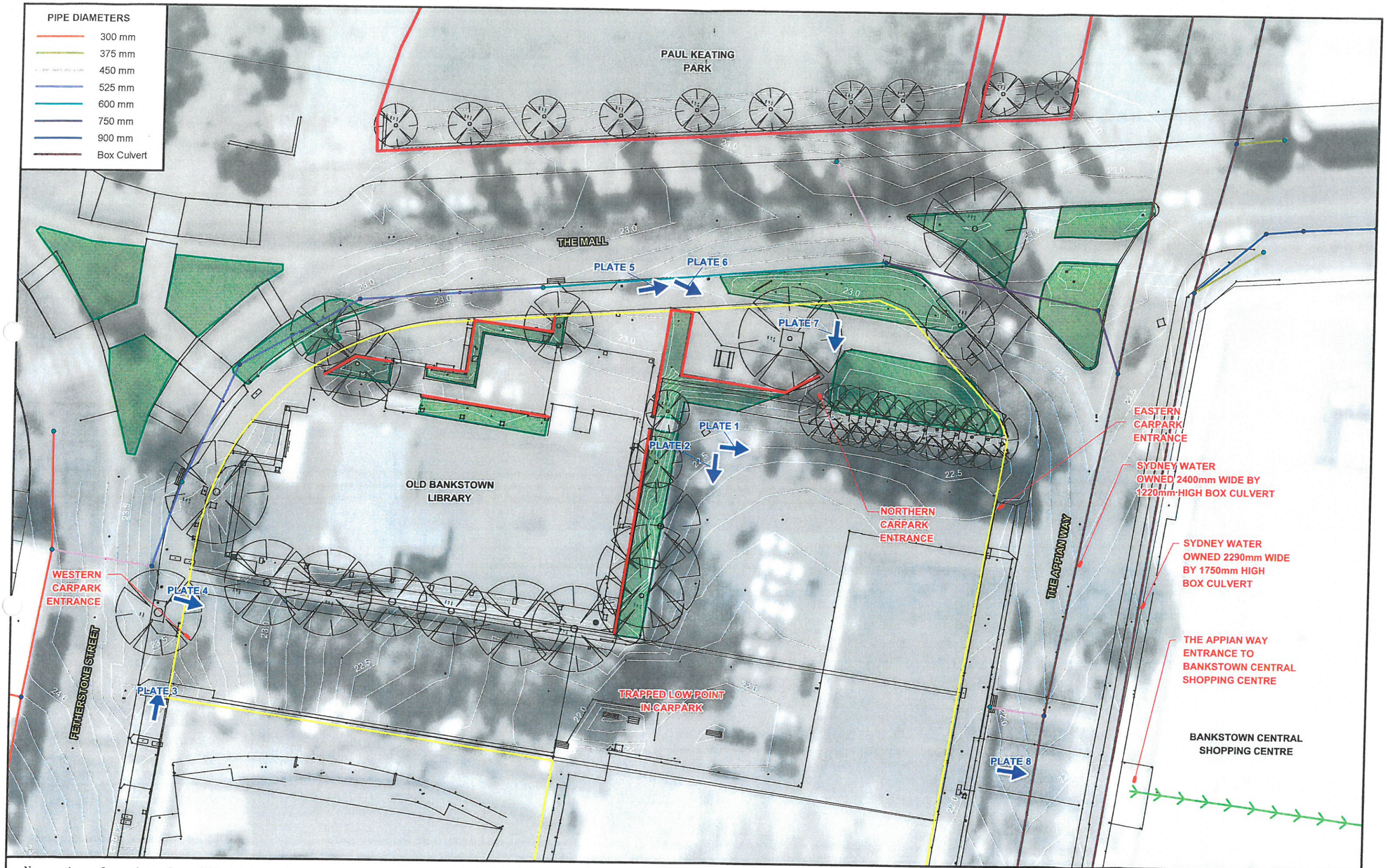
PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 2

KEY FEATURES OF EXISTING DRAINAGE SYSTEM IN VICINITY OF DEVELOPMENT SITE



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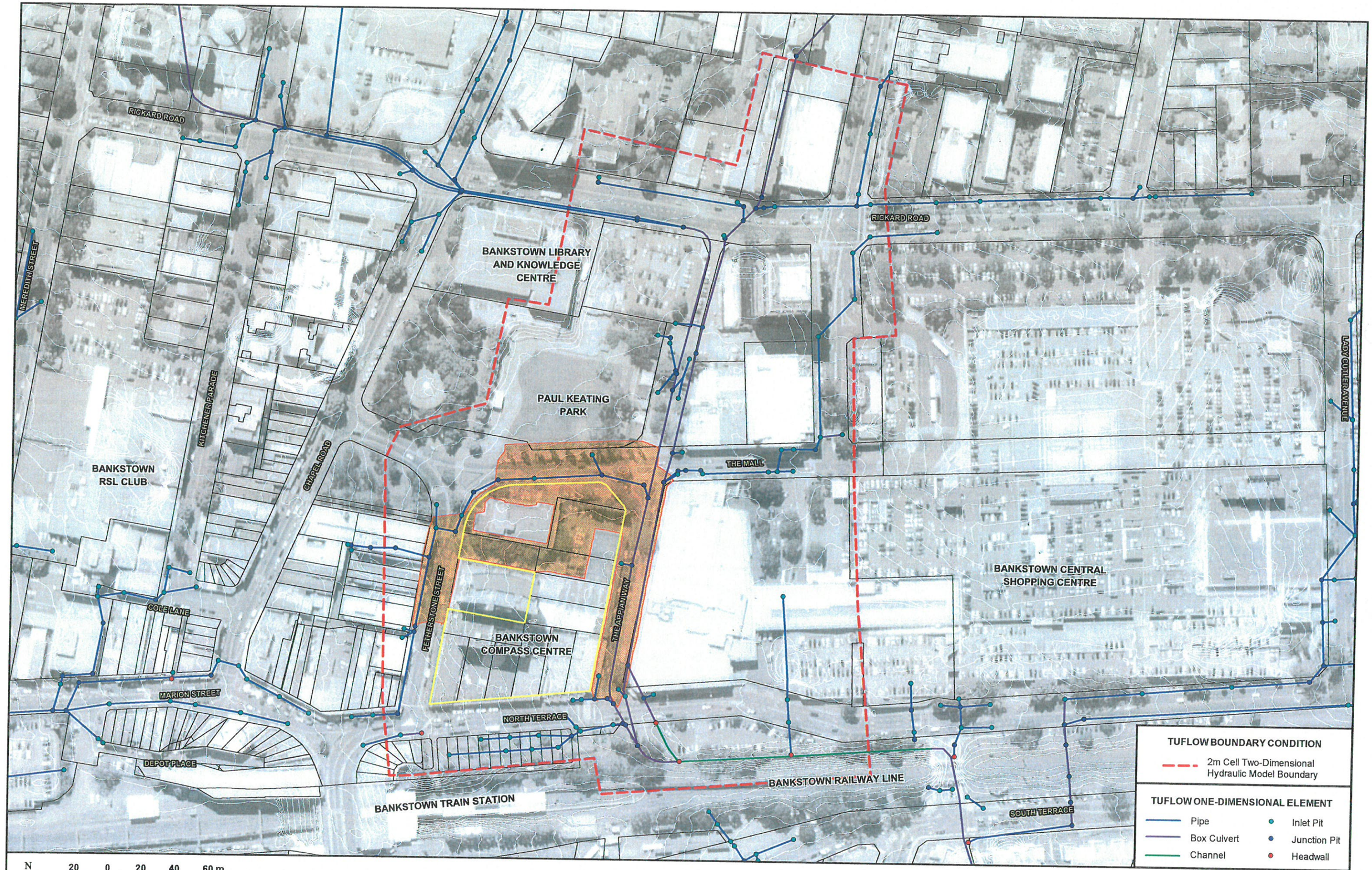
PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 3

KEY FEATURES INFLUENCING PATTERNS OF OVERLAND FLOW IN NORTH-EAST CORNER OF DEVELOPMENT SITE



N

20 0 20 40 60 m

Scale: 1:2,000

LEGEND

Development Site

Extent of Detailed Ground Survey

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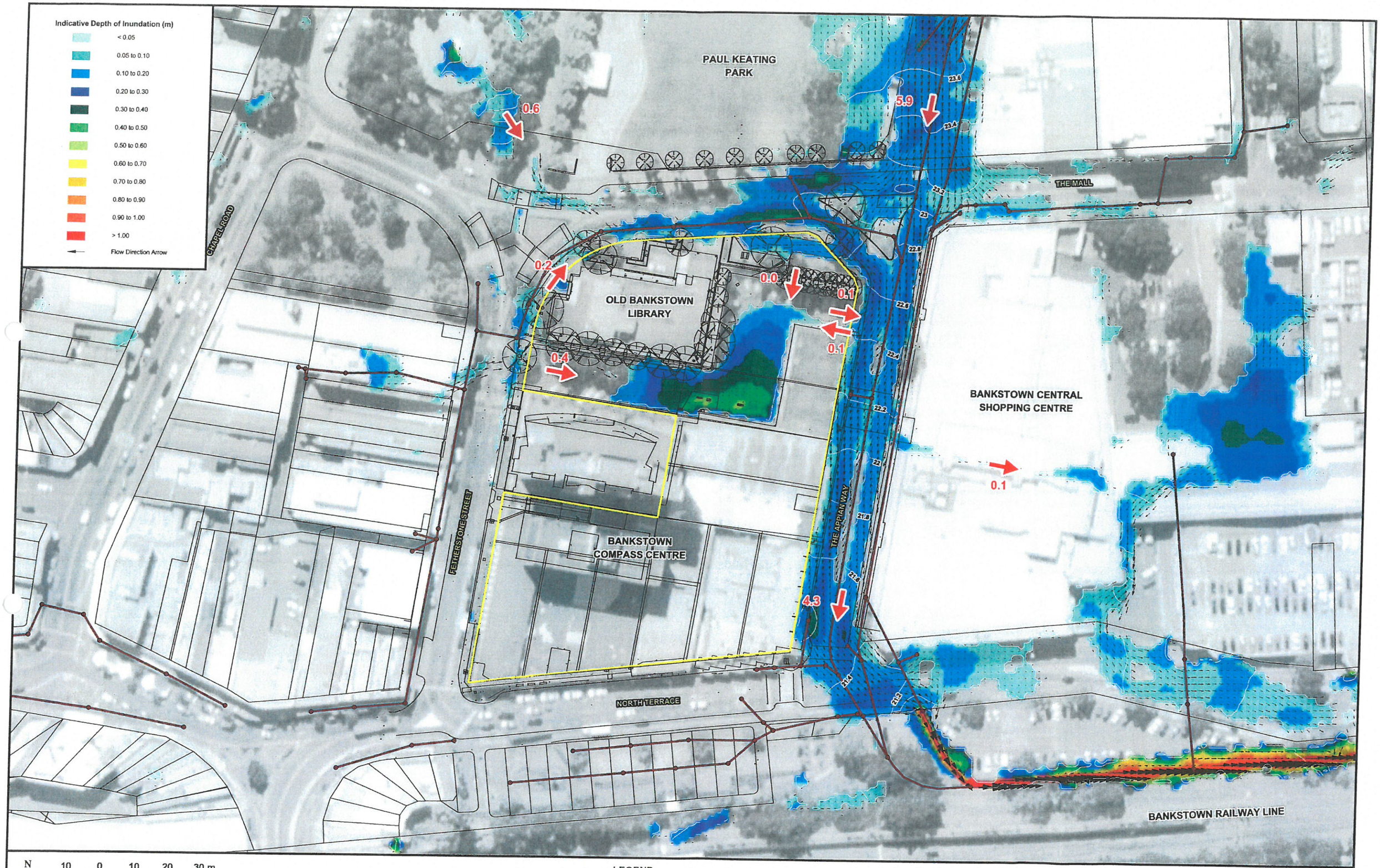
PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 4

TUFLOW MODEL LAYOUT



N

10 0 10 20 30 m

Scale: 1:1,000

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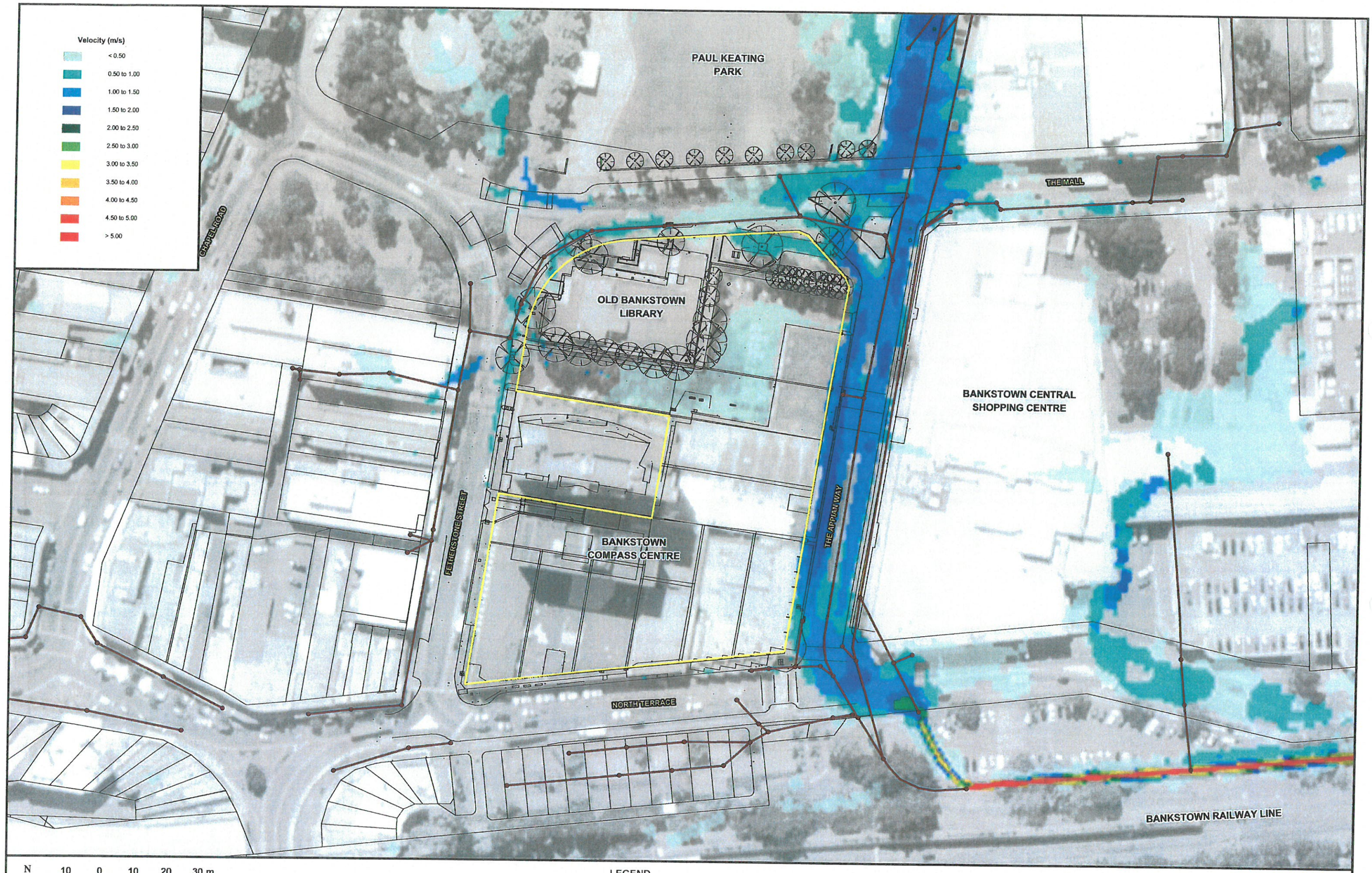
LEGEND

- Modelled Stormwater Drainage Network
- Development Site
- Water Surface Elevation Contour (m AHD) (0.2 m Interval)
- 0.2 Peak Overland Flow (m^3/s)

PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 5

PATTERNS OF OVERLAND FLOW IN VICINITY OF DEVELOPMENT SITE
PRE-DEVELOPED CONDITIONS - 5% AEP



N

10 0 10 20 30 m

Scale: 1:1,000

LEGEND

Modelled Stormwater Drainage Network

Development Site

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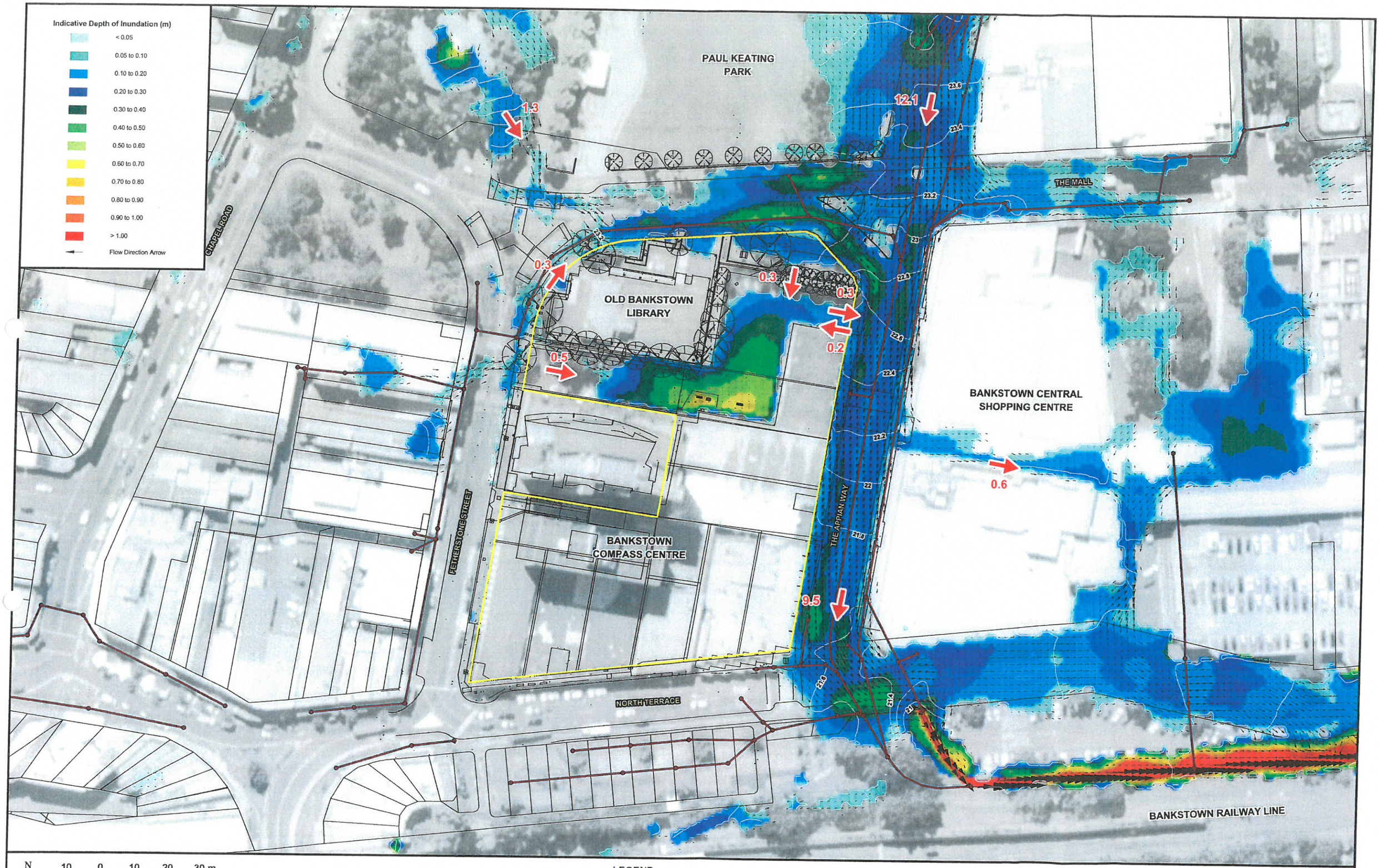
PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 6

OVERLAND FLOW VELOCITIES IN VICINITY OF DEVELOPMENT SITE
PRE-DEVELOPED CONDITIONS - 5% AEP



N

10 0 10 20 30 m

Scale: 1:1,000

Lyall & Associates

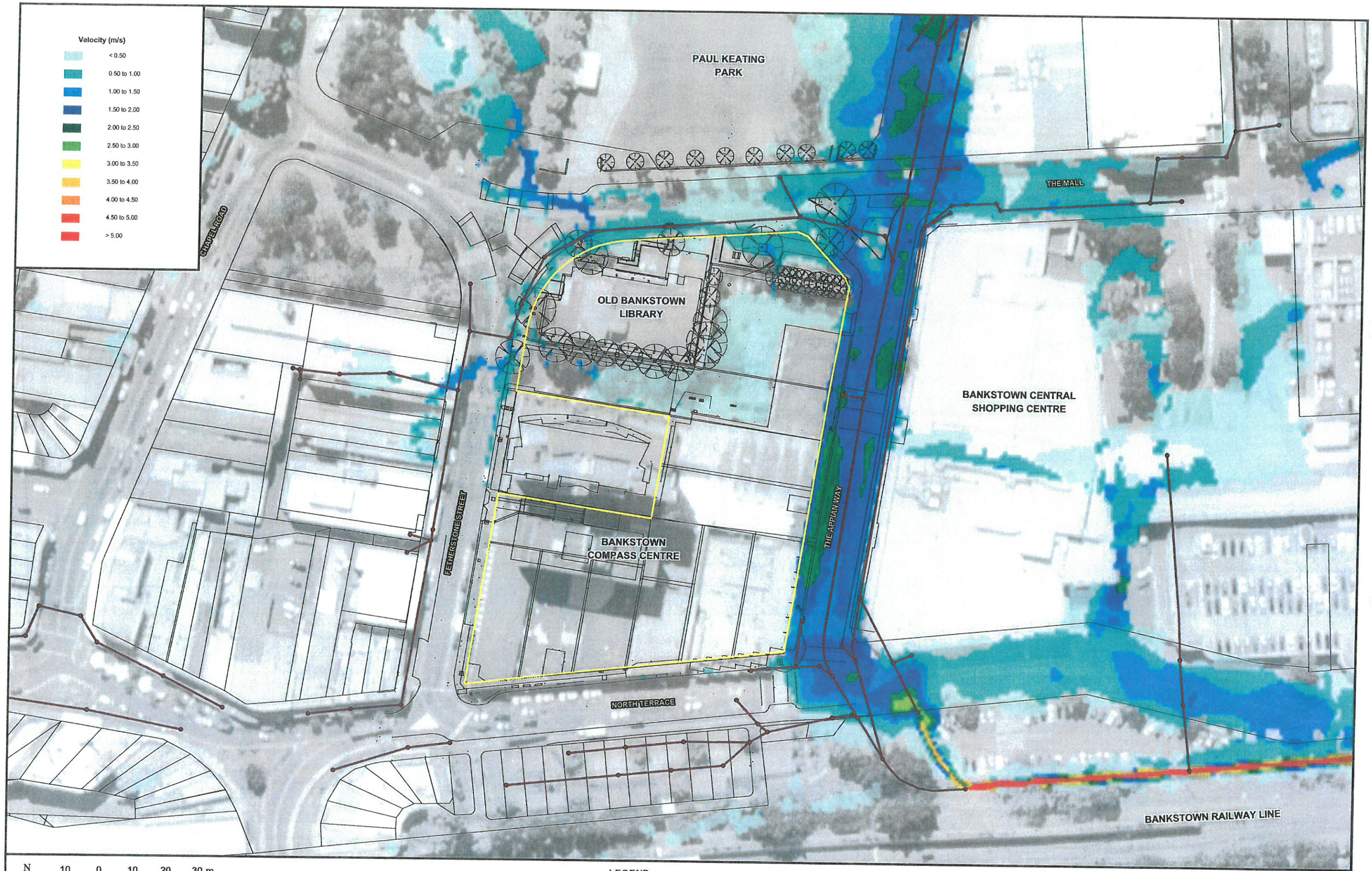
LEGEND

- Modelled Stormwater Drainage Network
- Development Site
- Water Surface Elevation Contour (m AHD) (0.2 m Interval)
- 0.5 Peak Overland Flow (m^3/s)

PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 7

PATTERNS OF OVERLAND FLOW IN VICINITY OF DEVELOPMENT SITE
PRE-DEVELOPED CONDITIONS - 1% AEP



N

10 0 10 20 30 m

Scale: 1:1,000

LEGEND

Modelled Stormwater Drainage Network

Development Site

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PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 8

OVERLAND FLOW VELOCITIES IN VICINITY OF DEVELOPMENT SITE
PRE-DEVELOPED CONDITIONS - 1% AEP

PAUL KEATING PARK

THE MALL

CHAPEL ROAD

OLD BANKSTOWN LIBRARY

BANKSTOWN CENTRAL SHOPPING CENTRE

FETHERSTONE STREET

BANKSTOWN COMPASS CENTRE

THE APPIAN WAY

NORTH TERRACE

BANKSTOWN RAILWAY LINE

N

10 0 10 20 30 m

Scale: 1:1,000

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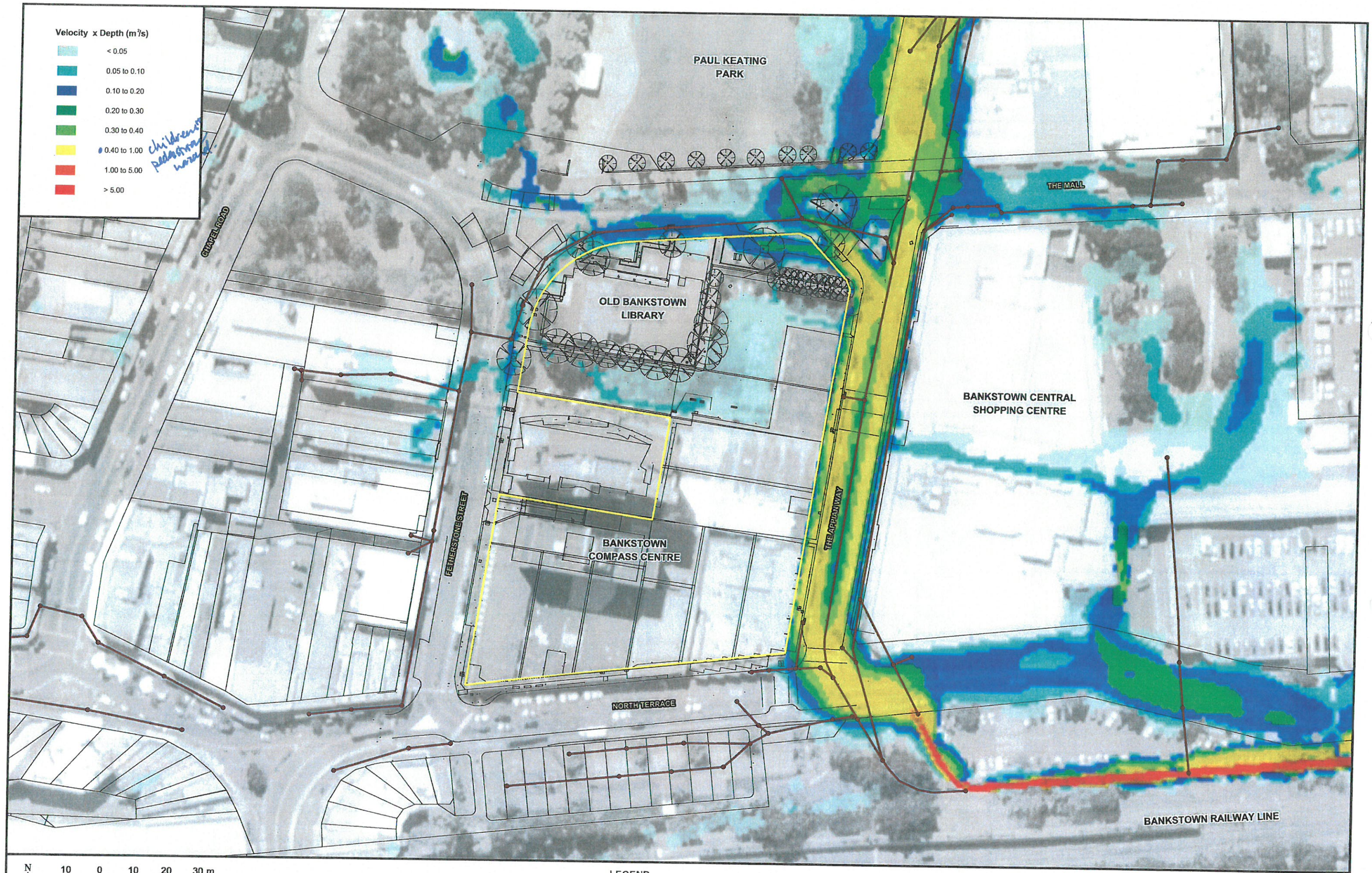
LEGEND

- Modelled Stormwater Drainage Network
- Development Site
- High Provisional Hydraulic Hazard
- Low Provisional Hydraulic Hazard
  (Categories based on Figure L2 of NSW Government's Floodplain Development Manual, 2005)

PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 9

PROVISIONAL HYDRAULIC HAZARD IN VICINITY OF DEVELOPMENT SITE
PRE-DEVELOPED CONDITIONS - 1% AEP



N

10 0 10 20 30 m

Scale: 1:1,000

LEGEND

Modelled Stormwater Drainage Network

Development Site

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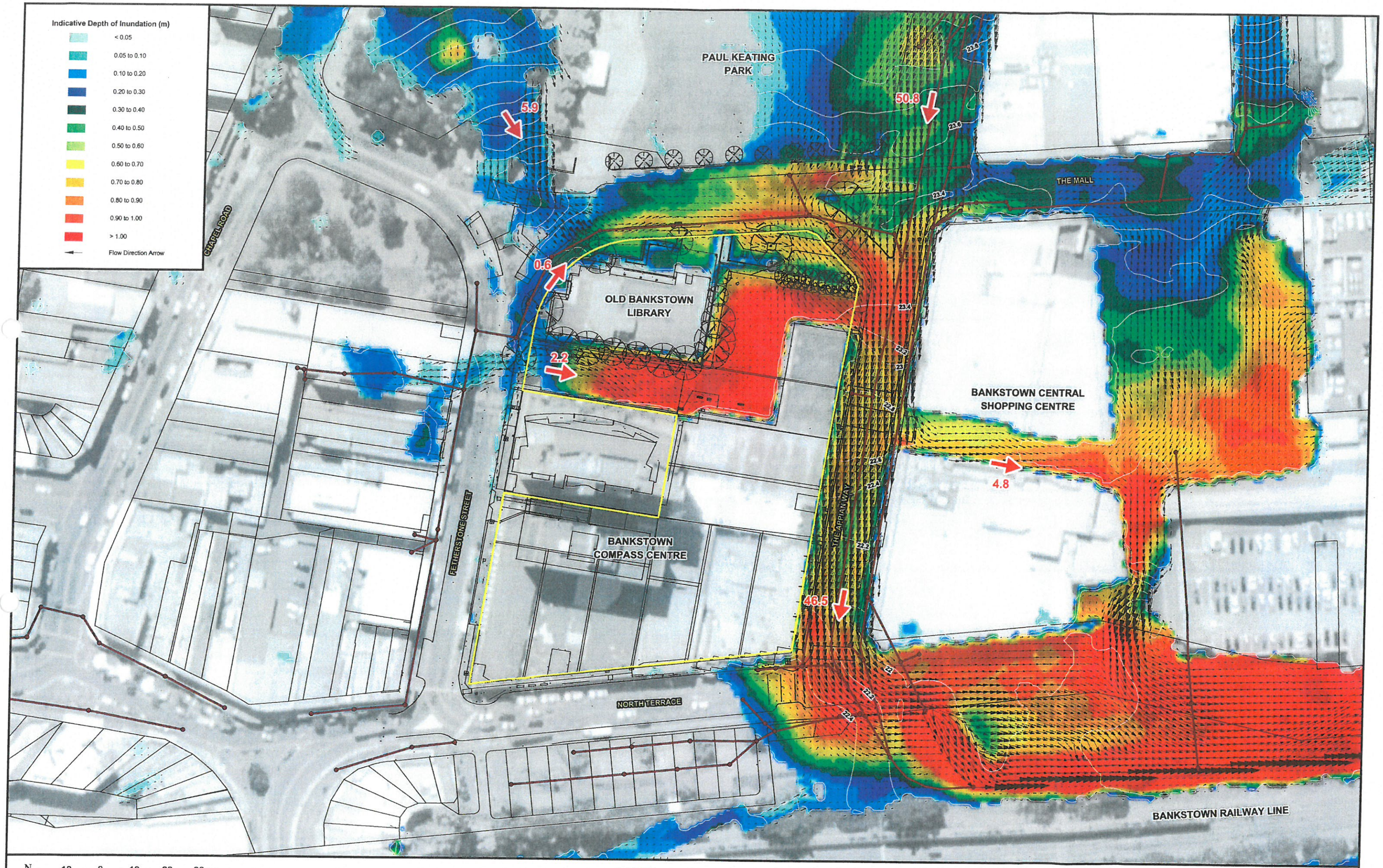
PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 10

VELOCITY AND DEPTH PRODUCT IN VICINITY OF DEVELOPMENT SITE
PRE-DEVELOPED CONDITIONS - 1% AEP



N

10 0 10 20 30 m

Scale: 1:1,000

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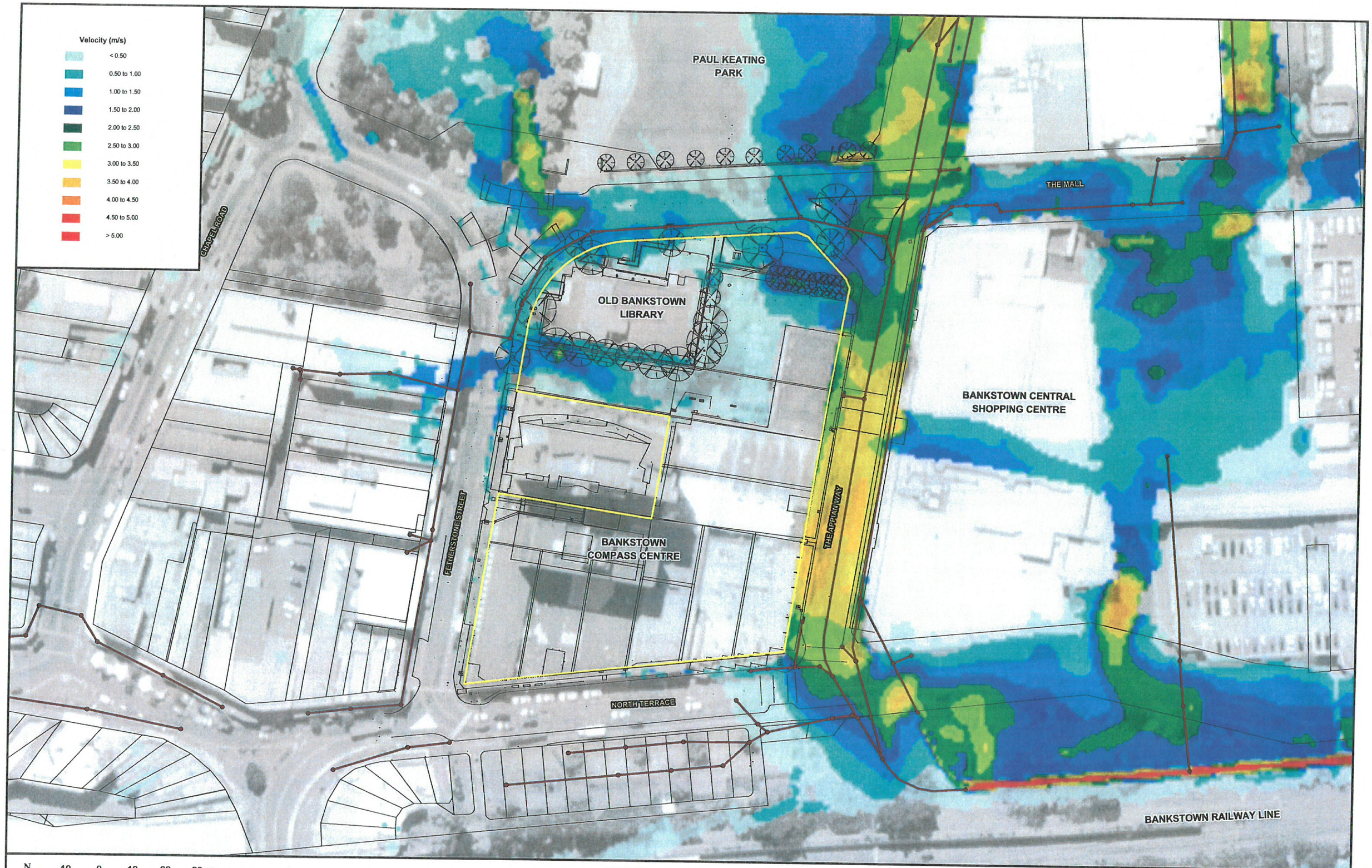
LEGEND

- Modelled Stormwater Drainage Network
- Development Site
- Water Surface Elevation Contour (m AHD) (0.2 m Interval)
- 2.2 Peak Overland Flow (m^3/s)

PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 11

PATTERNS OF OVERLAND FLOW IN VICINITY OF DEVELOPMENT SITE
PRE-DEVELOPED CONDITIONS - PMF



N

10 0 10 20 30 m

Scale: 1:1,000

LEGEND

Modelled Stormwater Drainage Network

Development Site

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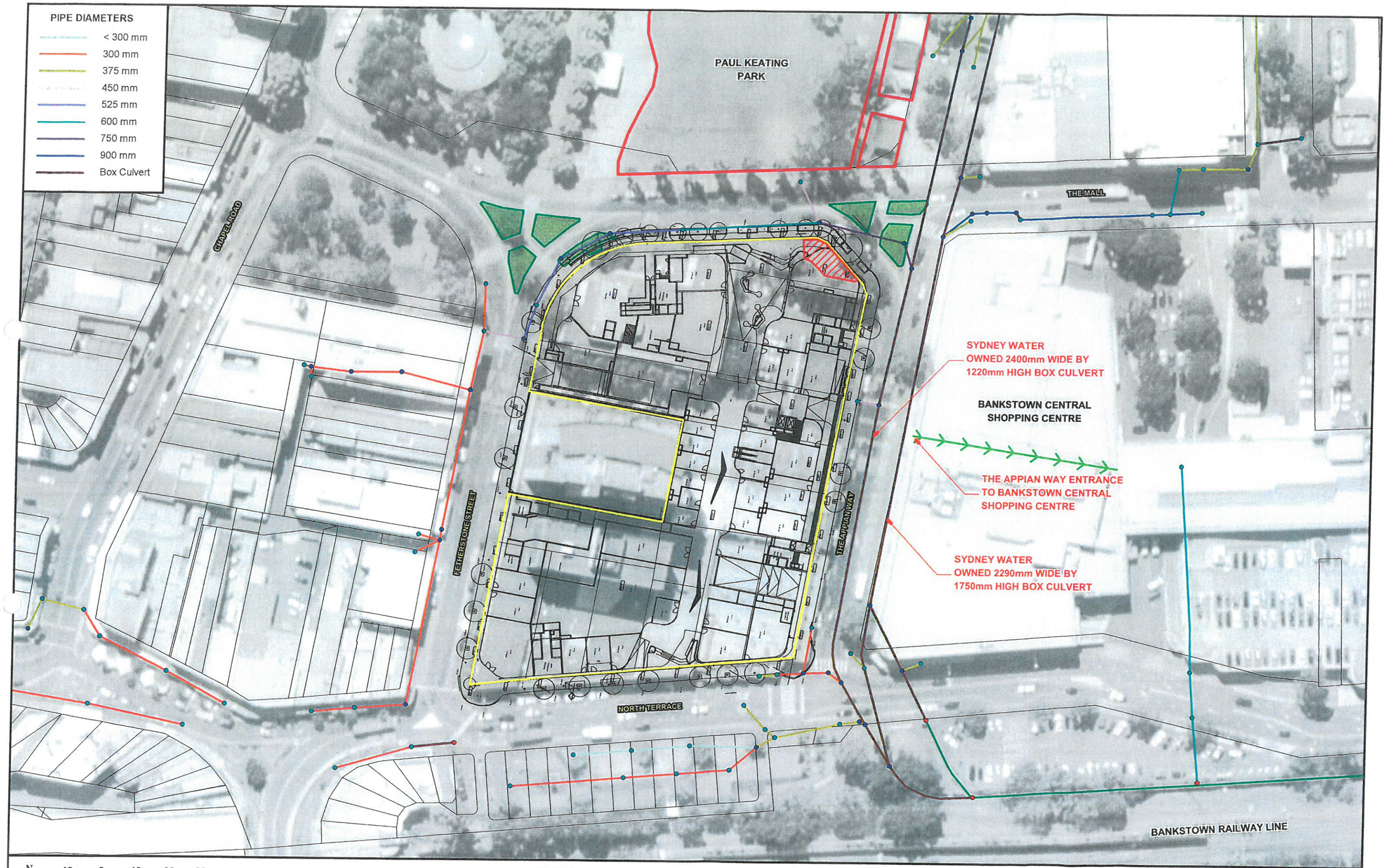
PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 12

OVERLAND FLOW VELOCITIES IN VICINITY OF DEVELOPMENT SITE
PRE-DEVELOPED CONDITIONS - PMF



N

10 0 10 20 30 m

Scale: 1:1,000

Lyall & Associates

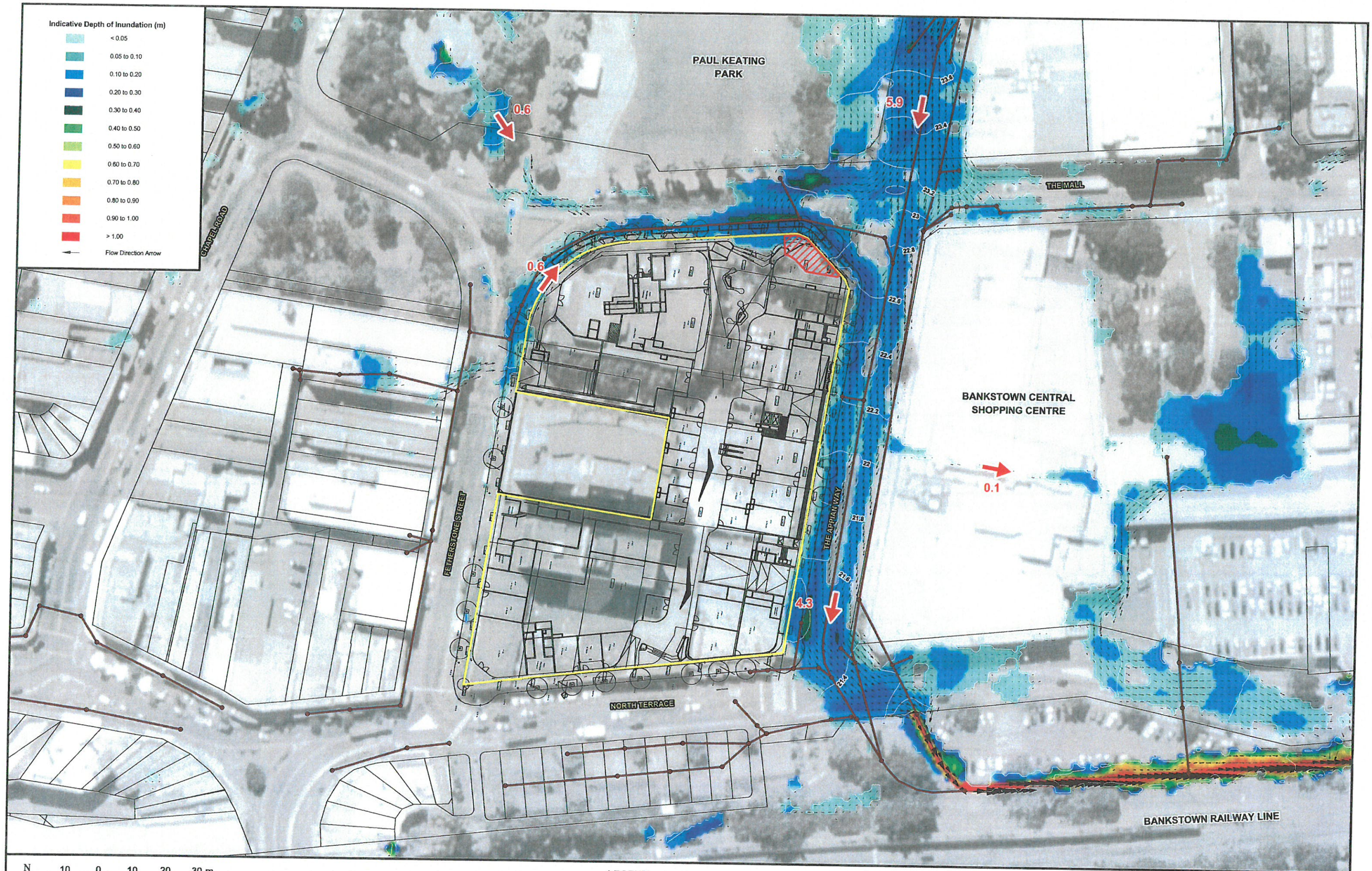
LEGEND

- Development Site
- Channel
- Inlet Pit
- Junction Pit
- Headwall
- Raised Garden Bed
- Retaining Wall
- Approximate Alignment of Flowpath Through Bankstown Central Shopping Centre
- Approximate Extent of Flood Storage Tank

PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 13

LAYOUT OF PROPOSED REDEVELOPED BANKSTOWN COMPASS CENTRE



N

10 0 10 20 30 m

Scale: 1:1,000

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LEGEND

- Modelled Stormwater Drainage Network
- Development Site
- Approximate Extent of Flood Storage Tank
- 25.8 Water Surface Elevation Contour (m AHD) (0.2 m Interval)
- 0.1 Peak Overland Flow (m^3/s)

PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 14

PATTERNS OF OVERLAND FLOW IN VICINITY OF DEVELOPMENT SITE
POST-DEVELOPED CONDITIONS - 5% AEP

N

10 0 10 20 30 m

Scale: 1:1,000

LEGEND

- Modelled Stormwater Drainage Network
- Development Site
- Approximate Extent of Flood Storage Tank

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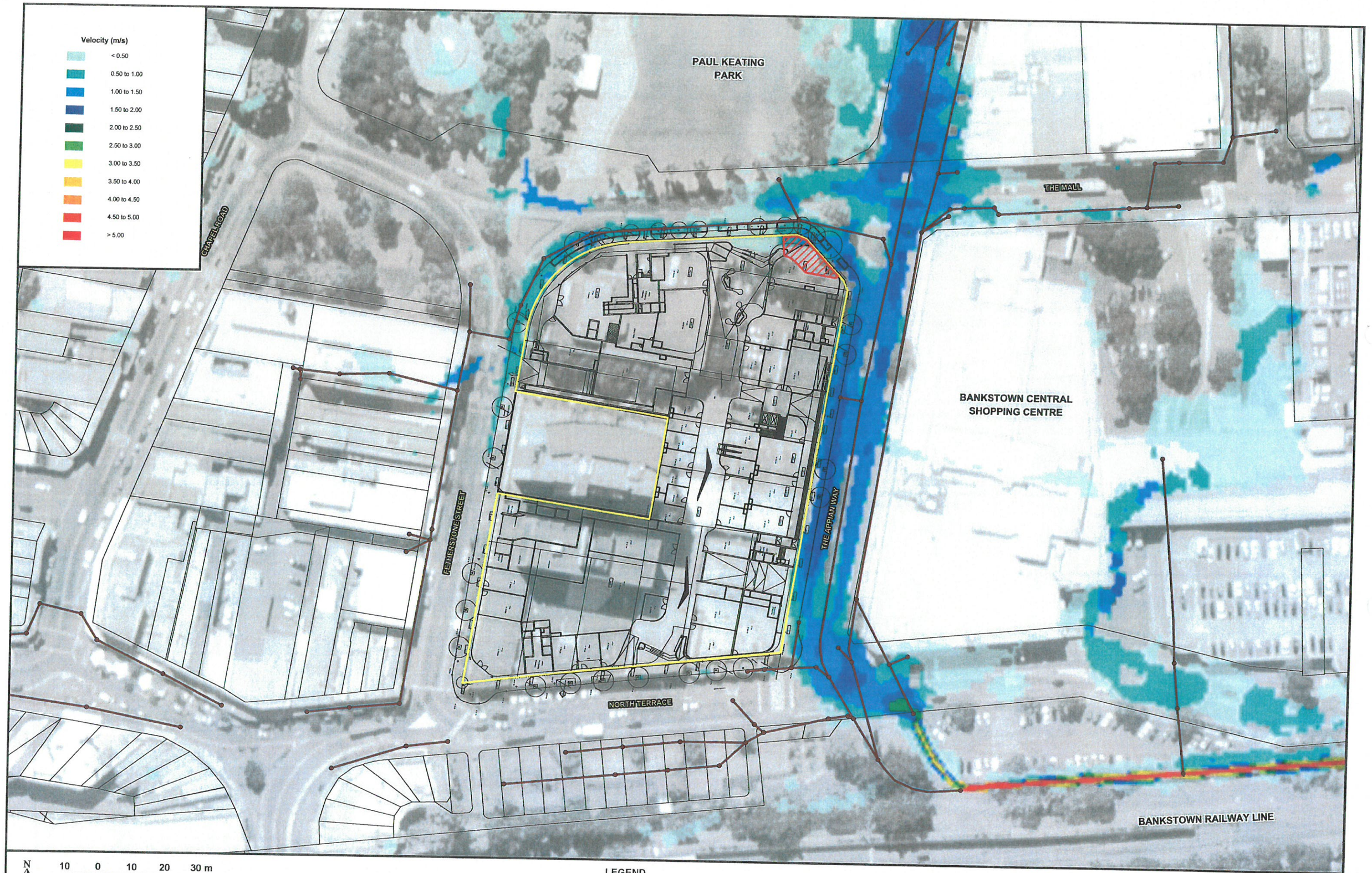
PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 15

IMPACT OF PROPOSED DEVELOPMENT ON PATTERNS OF OVERLAND FLOW
POST-DEVELOPED CONDITIONS - 5% AEP



N

10 0 10 20 30 m

Scale: 1:1,000

LEGEND

- Modelled Stormwater Drainage Network
- Development Site
- Approximate Extent of Flood Storage Tank

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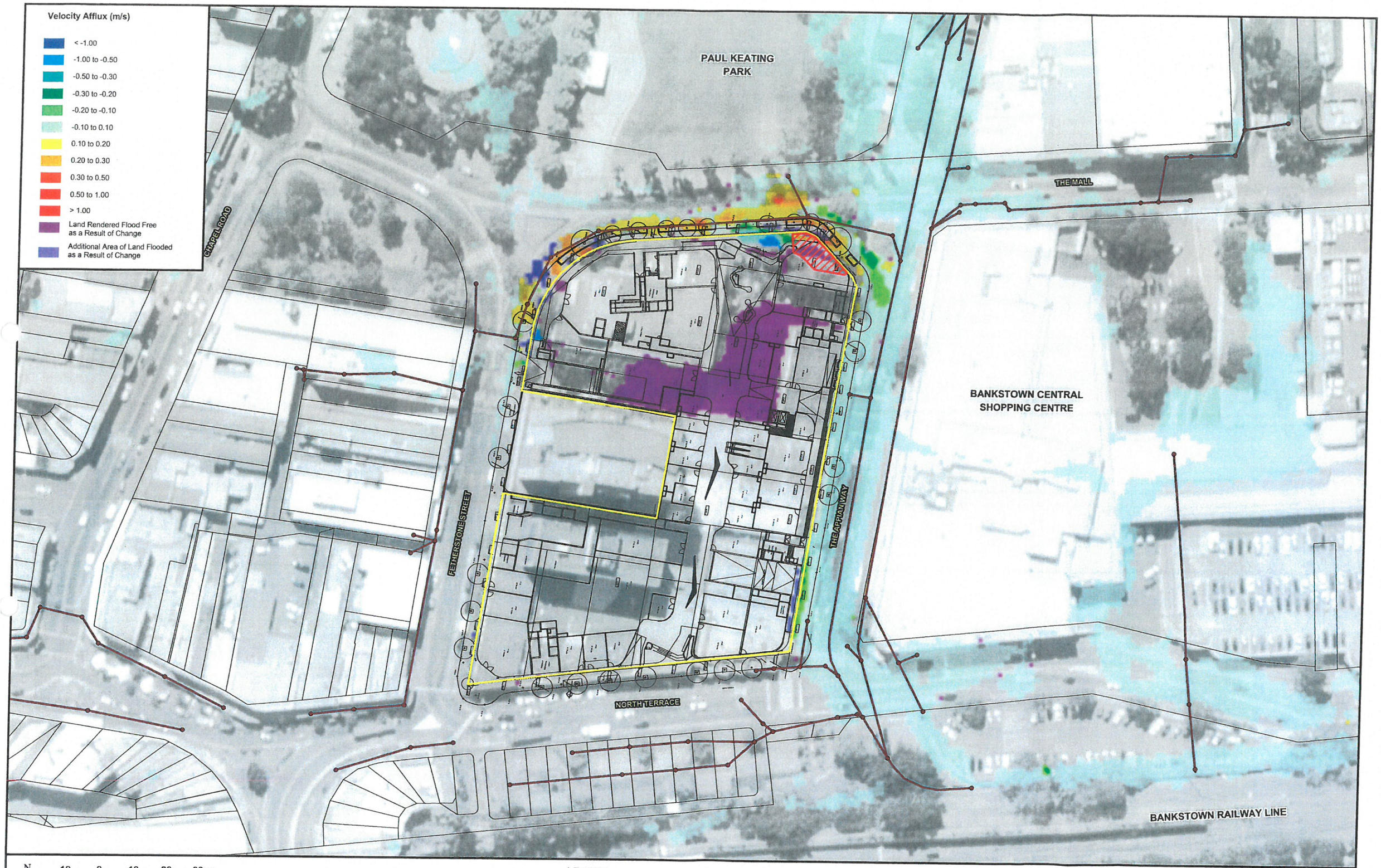
PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 16

OVERLAND FLOW VELOCITIES IN VICINITY OF DEVELOPMENT SITE
POST-DEVELOPED CONDITIONS - 5% AEP



N

10 0 10 20 30 m

Scale: 1:1,000

LEGEND

- Modelled Stormwater Drainage Network
- Development Site
- Approximate Extent of Flood Storage Tank

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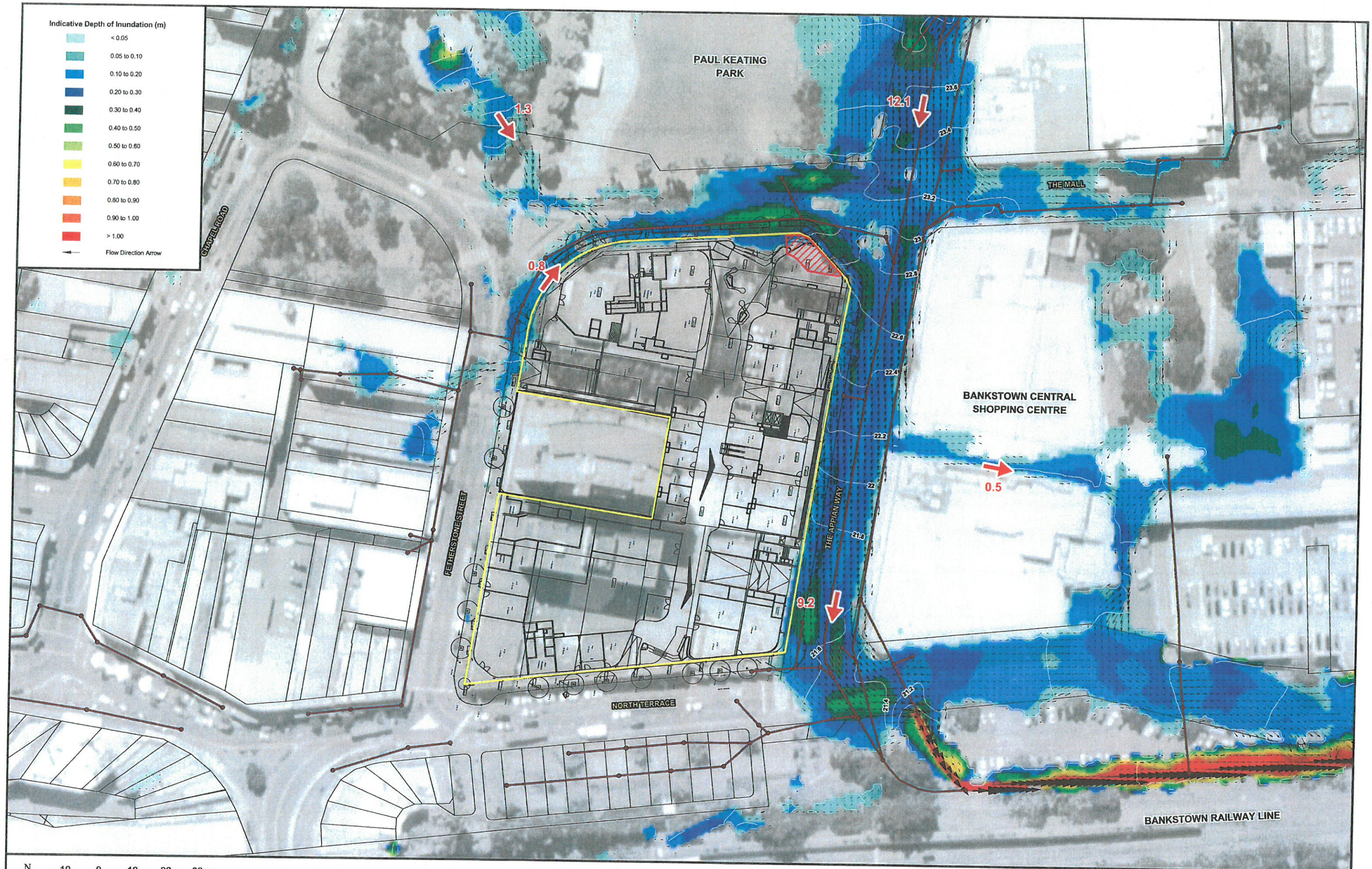
PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 17

IMPACT OF PROPOSED DEVELOPMENT ON OVERLAND FLOW VELOCITIES
POST-DEVELOPED CONDITIONS - 5% AEP



N

10 0 10 20 30 m

Scale: 1:1,000

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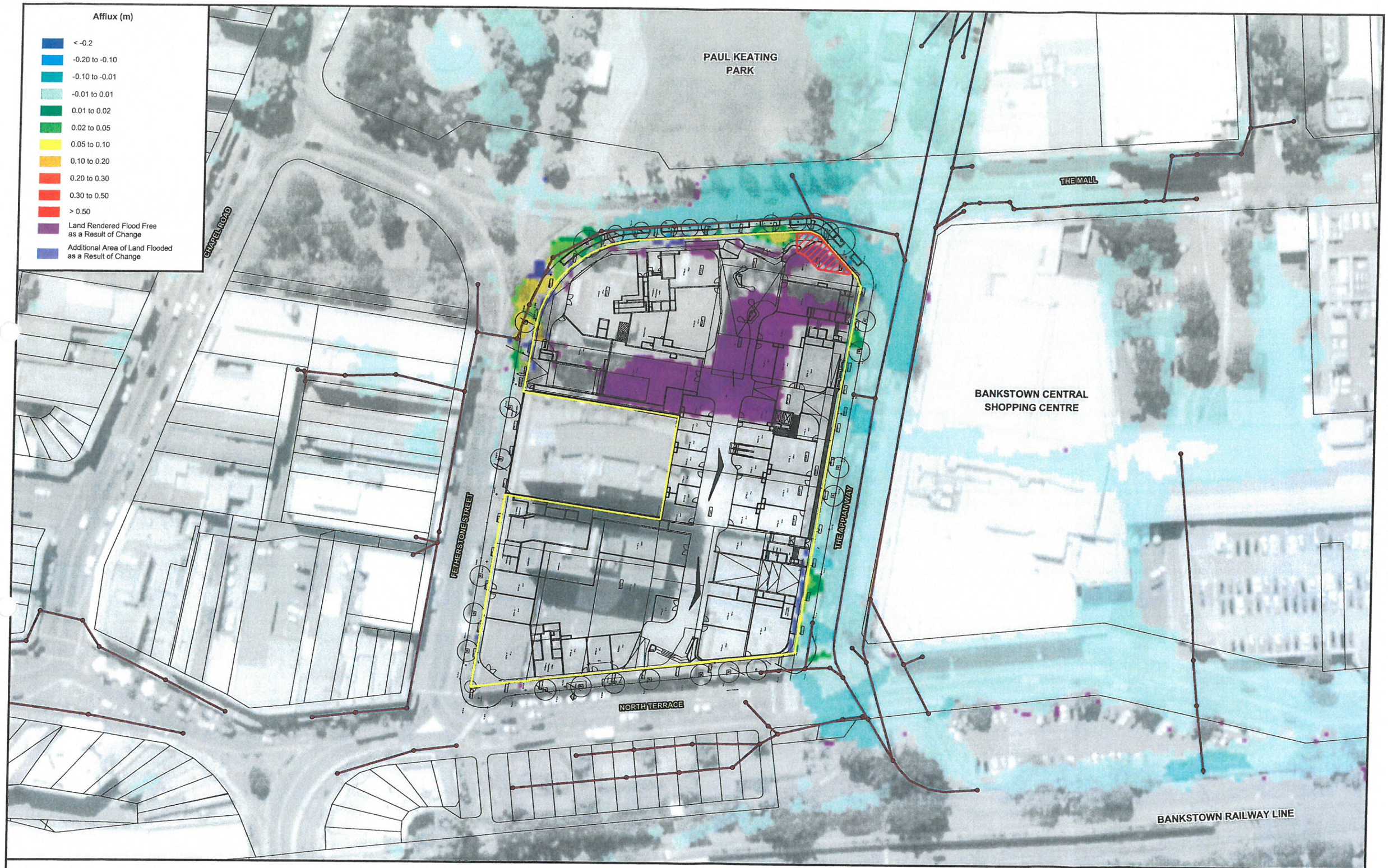
LEGEND

- Modelled Stormwater Drainage Network
- Development Site
- Approximate Extent of Flood Storage Tank
- 79 Water Surface Elevation Contour (m AHD) (0.2 m Interval)
- 0.5 Peak Overland Flow (m^3/s)

PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 18

PATTERNS OF OVERLAND FLOW IN VICINITY OF DEVELOPMENT SITE
POST-DEVELOPED CONDITIONS - 1% AEP



N

10 0 10 20 30 m

Scale: 1:1,000

LEGEND

- Modelled Stormwater Drainage Network
- Development Site
- Approximate Extent of Flood Storage Tank

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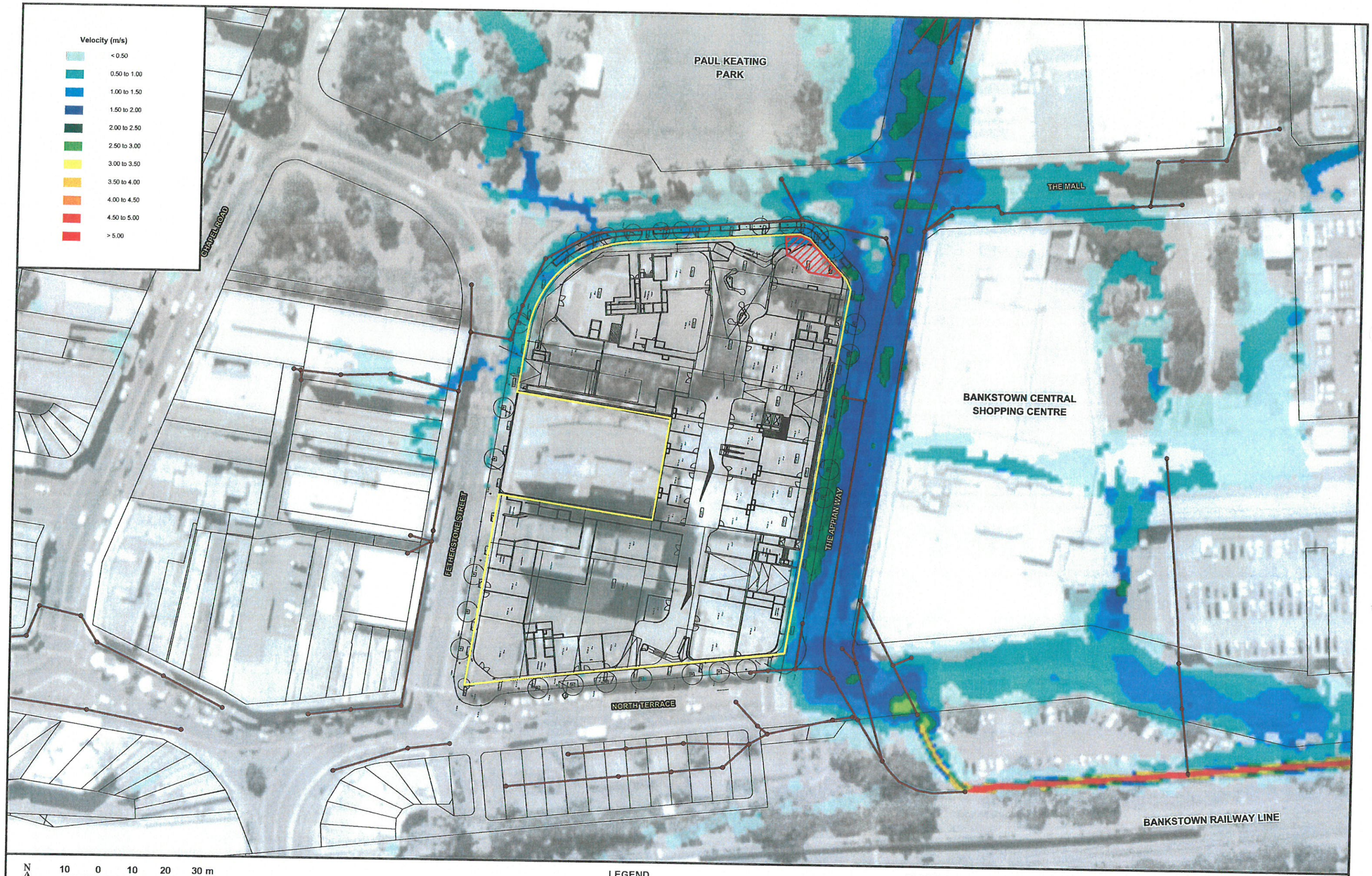
PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 19

IMPACT OF PROPOSED DEVELOPMENT ON PATTERNS OF OVERLAND FLOW
POST-DEVELOPED CONDITIONS - 1% AEP



LEGEND

- Modelled Stormwater Drainage Network
- Development Site
- Approximate Extent of Flood Storage Tank

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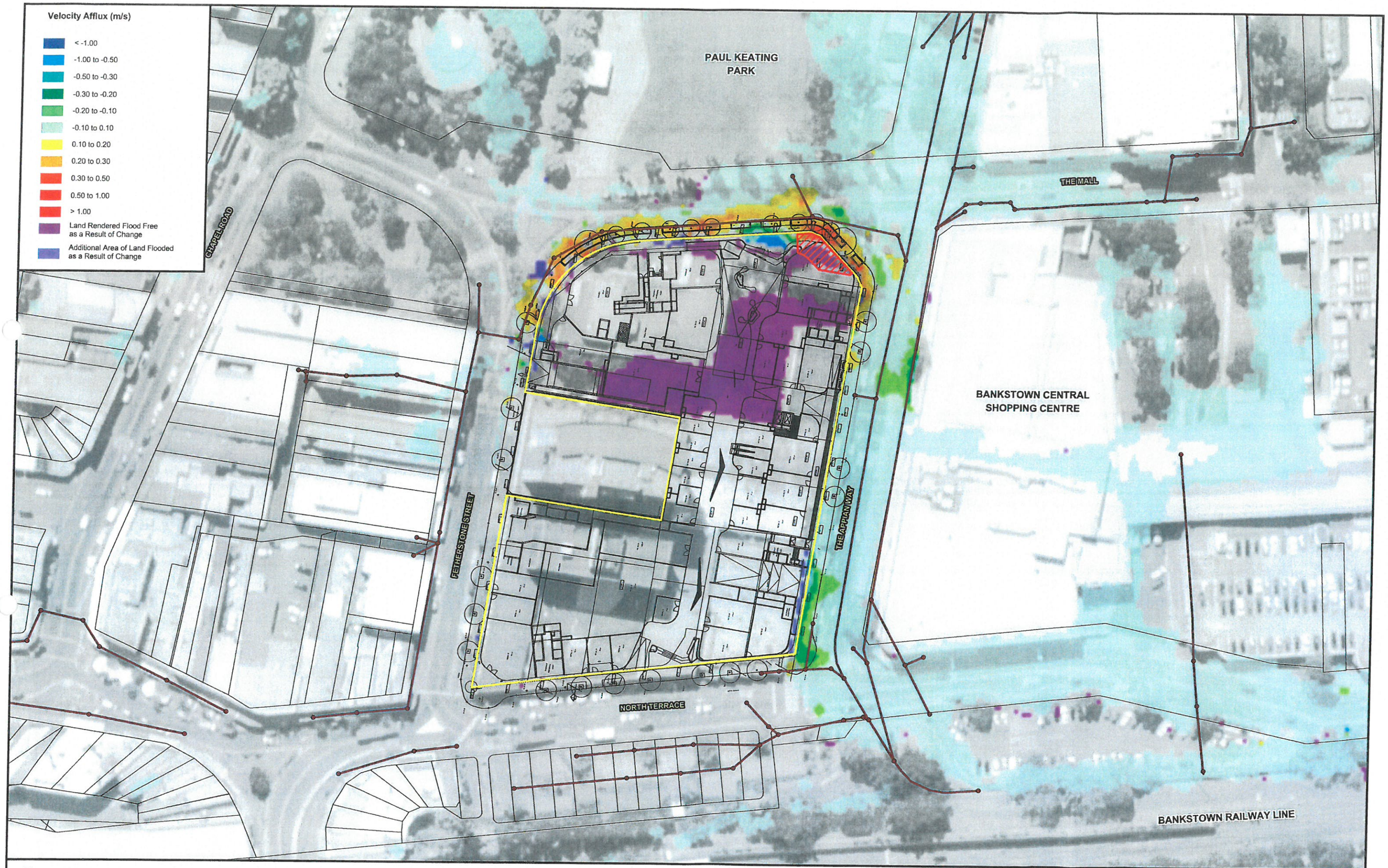
PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 20

OVERLAND FLOW VELOCITIES IN VICINITY OF DEVELOPMENT SITE
POST-DEVELOPED CONDITIONS - 1% AEP



N

10 0 10 20 30 m

Scale: 1:1,000

LEGEND

- Modelled Stormwater Drainage Network
- Development Site
- Approximate Extent of Flood Storage Tank

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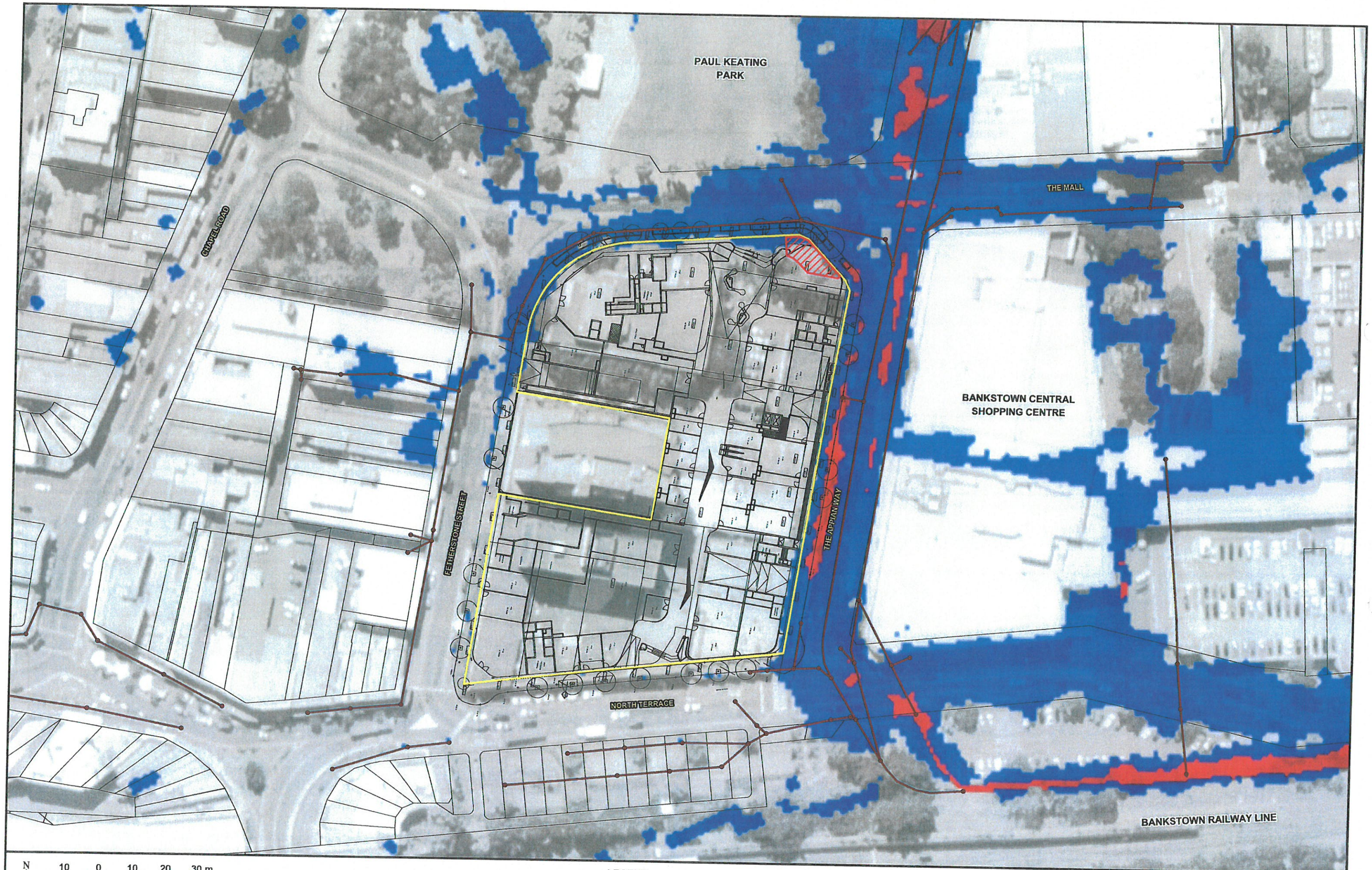
PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 21

IMPACT OF PROPOSED DEVELOPMENT ON OVERLAND FLOW VELOCITIES
POST-DEVELOPED CONDITIONS - 1% AEP



N

10 0 10 20 30 m

Scale: 1:1,000

LEGEND

- Modelled Stormwater Drainage Network
- Development Site
- Approximate Extent of Flood Storage Tank
- High Provisional Hydraulic Hazard
- Low Provisional Hydraulic Hazard

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

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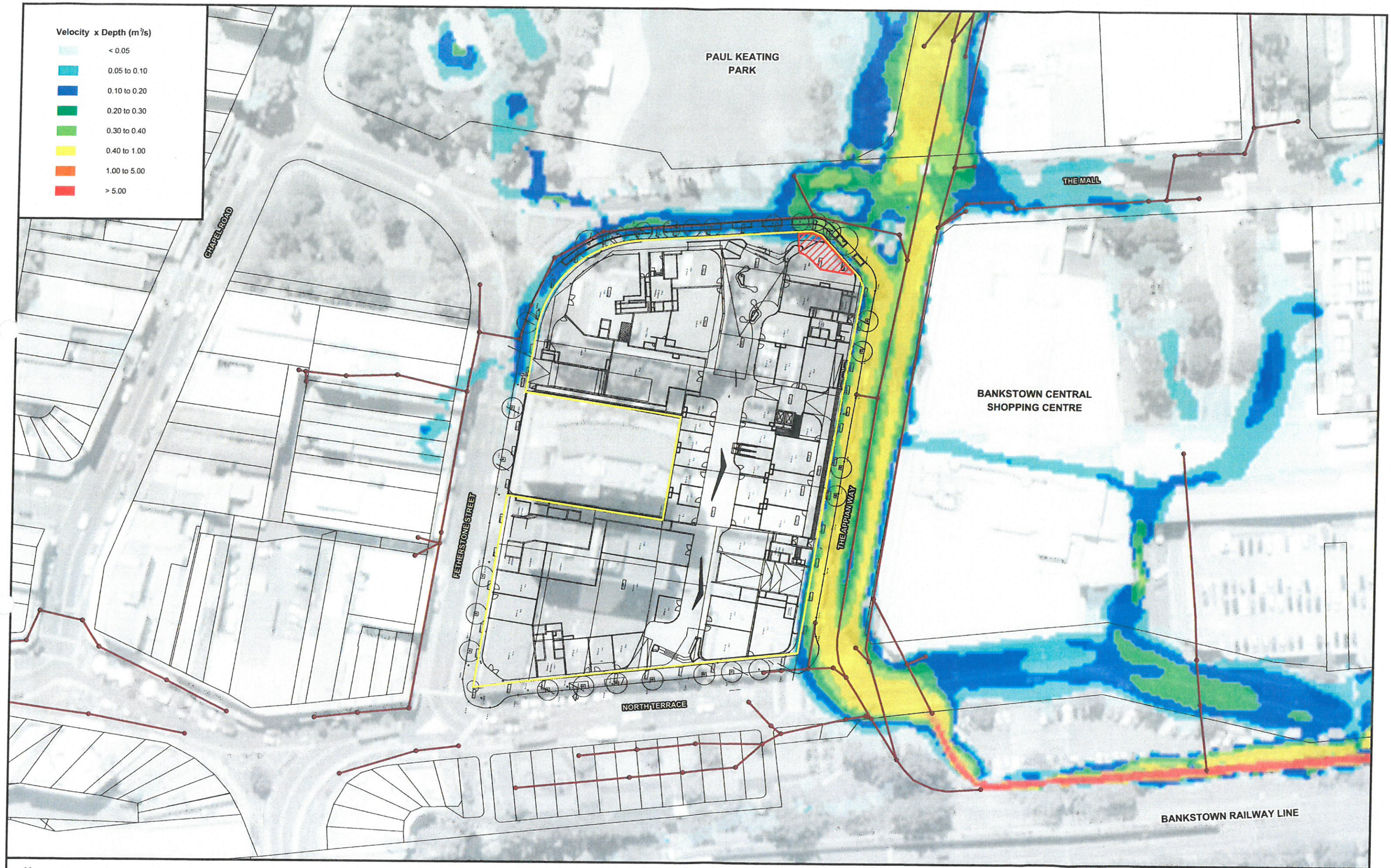
PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 22

PROVISIONAL HYDRAULIC HAZARD IN VICINITY OF DEVELOPMENT SITE
POST-DEVELOPED CONDITIONS - 1% AEP



N

10 0 10 20 30 m

Scale: 1:1,000

LEGEND

- Modelled Stormwater Drainage Network
- Development Site
- Approximate Extent of Flood Storage Tank

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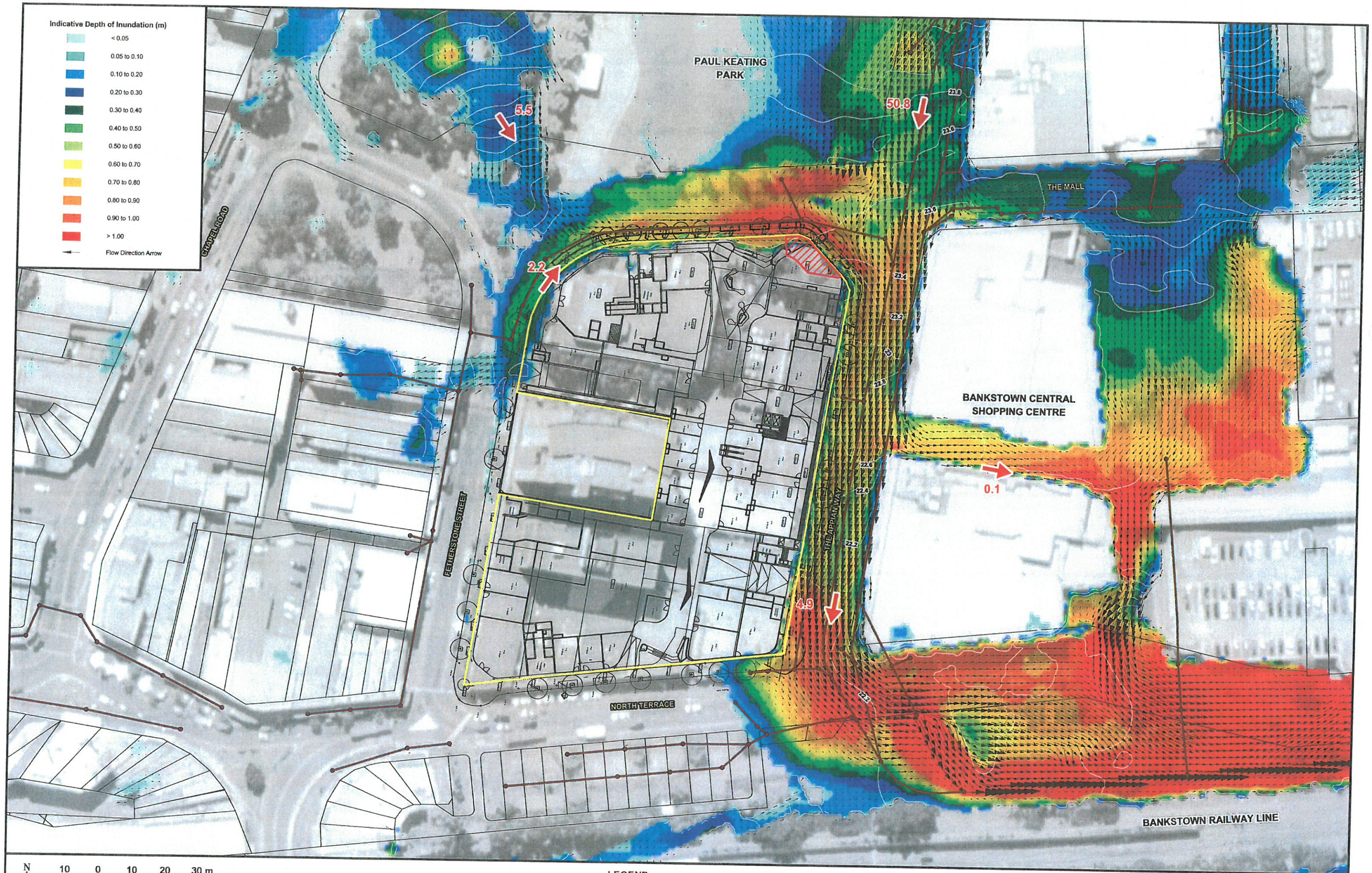
PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 23

VELOCITY AND DEPTH PRODUCT IN VICINITY OF DEVELOPMENT SITE
POST-DEVELOPED CONDITIONS - 1% AEP



N

10 0 10 20 30 m

Scale: 1:1,000

LEGEND

- Modelled Stormwater Drainage Network
- Development Site
- Approximate Extent of Flood Storage Tank
- Water Surface Elevation Contour (m AHD) (0.2 m Interval)
- 4.9 Peak Overland Flow (m^3/s)

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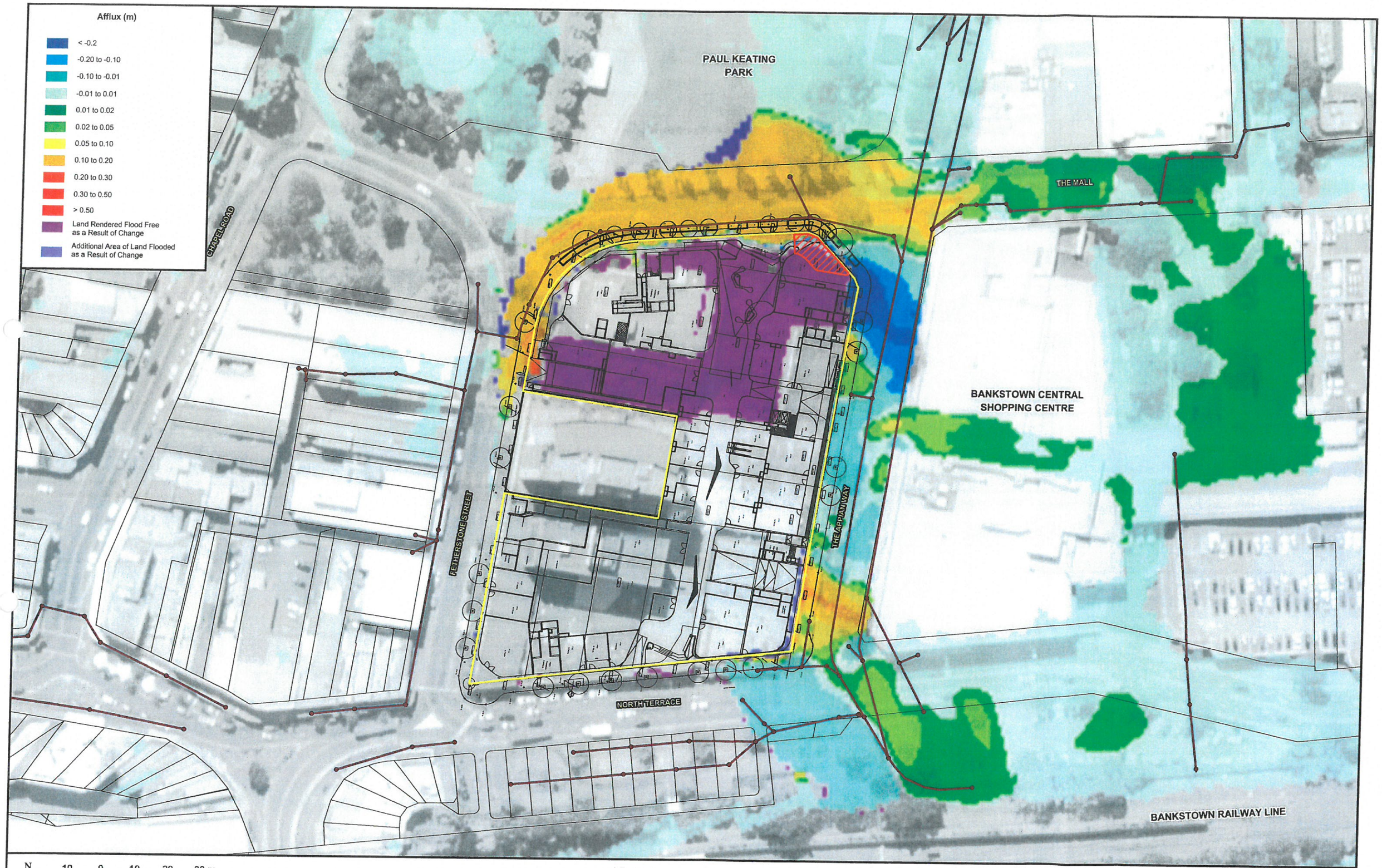
PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 24

PATTERNS OF OVERLAND FLOW IN VICINITY OF DEVELOPMENT SITE
POST-DEVELOPED CONDITIONS - PMF



N

10 0 10 20 30 m

Scale: 1:1,000

LEGEND

- Modelled Stormwater Drainage Network
- Development Site
- Approximate Extent of Flood Storage Tank

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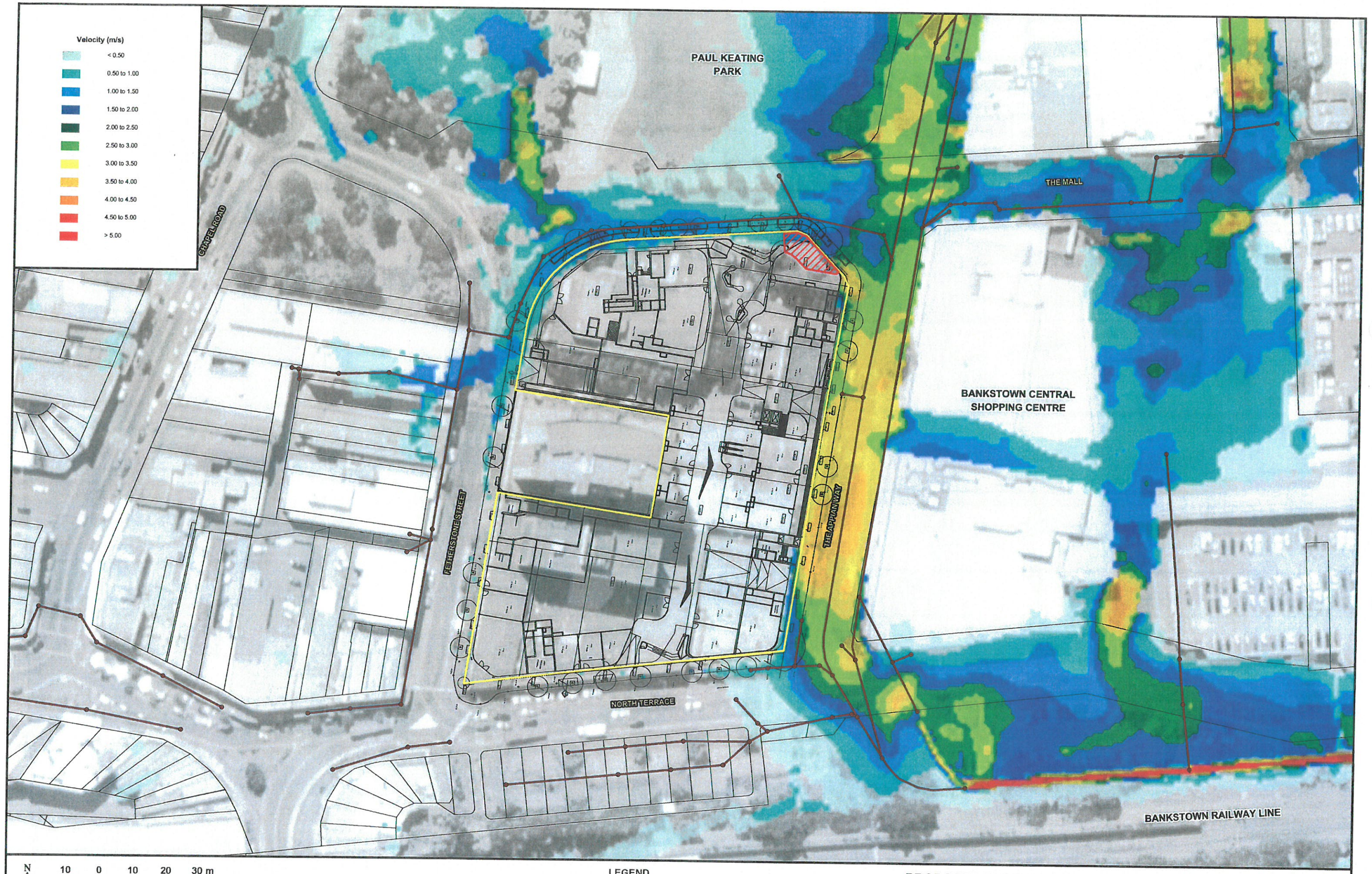
PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 25

IMPACT OF PROPOSED DEVELOPMENT ON PATTERNS OF OVERLAND FLOW
POST-DEVELOPED CONDITIONS - PMF



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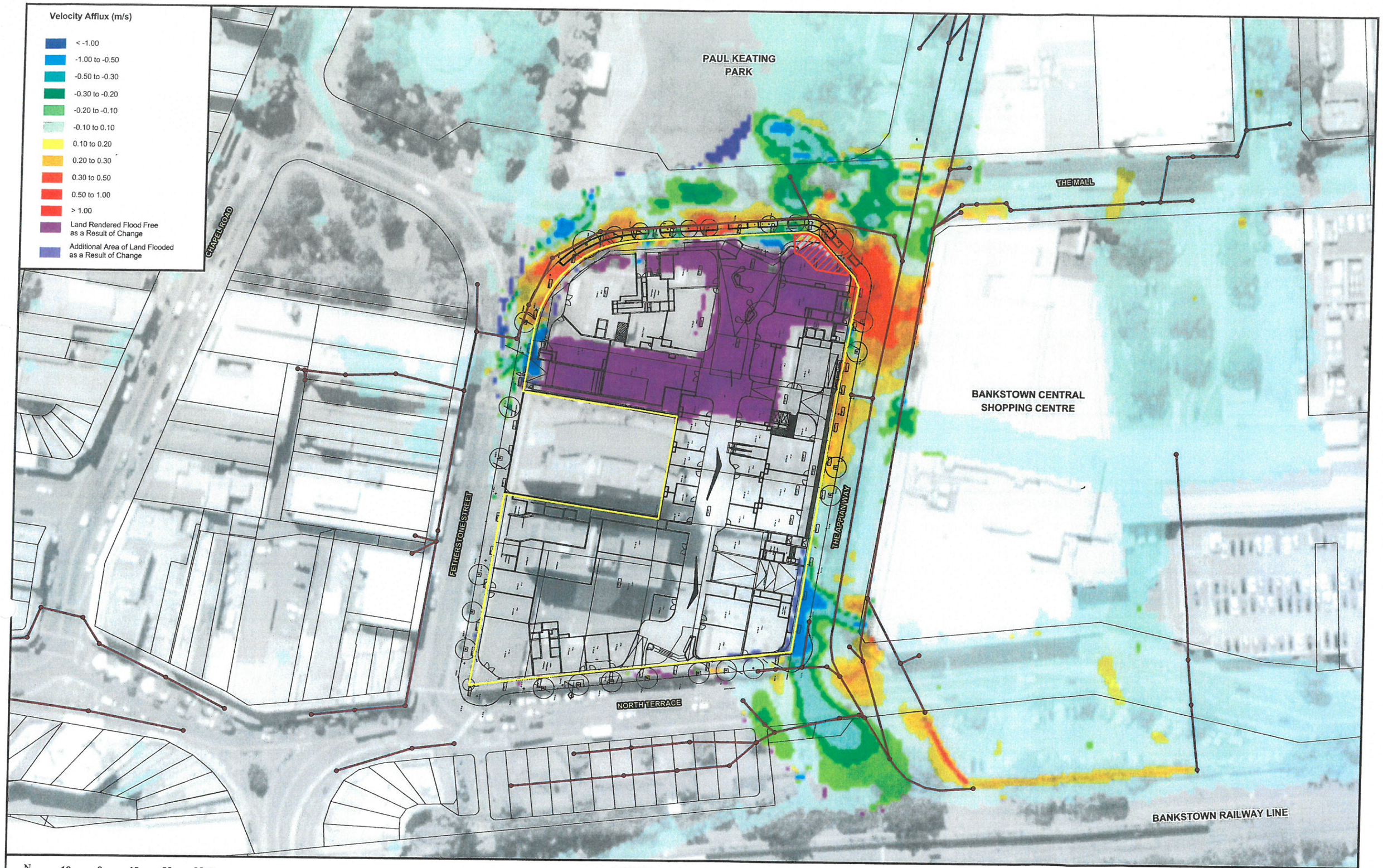
PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 26

OVERLAND FLOW VELOCITIES IN VICINITY OF DEVELOPMENT SITE
POST-DEVELOPED CONDITIONS - PMF



N

10 0 10 20 30 m

Scale: 1:1,000

LEGEND

- Modelled Stormwater Drainage Network
- Development Site
- Approximate Extent of Flood Storage Tank

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PROPOSED REDEVELOPMENT OF BANKSTOWN COMPASS CENTRE
FLOOD RISK ASSESSMENT

Figure 27

IMPACT OF PROPOSED DEVELOPMENT ON OVERLAND FLOW VELOCITIES
POST-DEVELOPED CONDITIONS - PMF