CAMDEN COUNCIL PUBLIC EXHIBITION DOCUMENT 2022

REVIEW OF UPPER SOUTH CREEK FLOOD STUDY IN THE CONTEXT OF ONGOING DEVELOPMENT: FIGURES MERGED

(Draft Report)

FIGURE 1

UPPER SOUTH CREEK FLOOD STUDY REVIEW
UPPER SOUTH CREEK CATCHMENT STUDY AREA

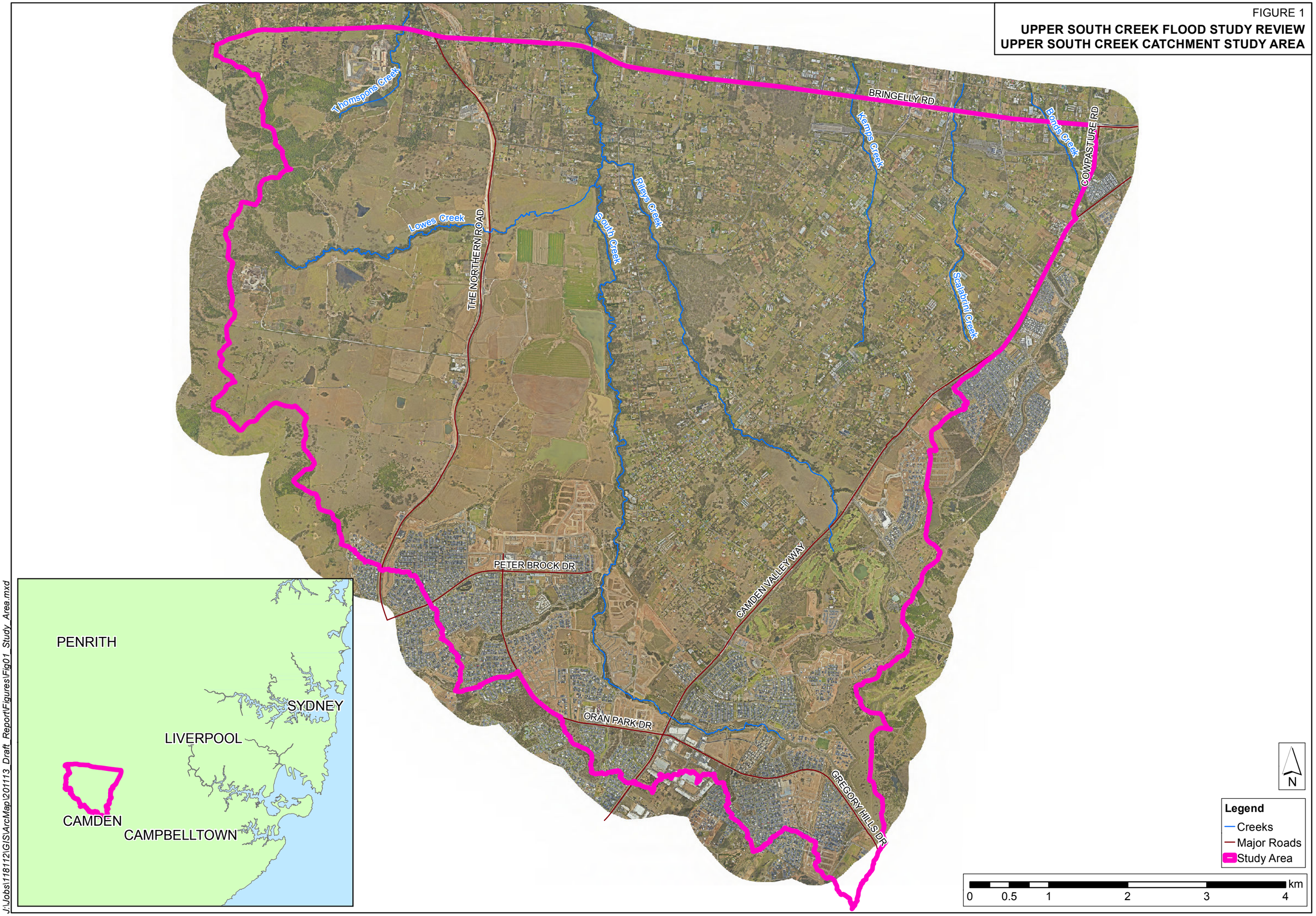

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FIGURE 2

UPPER SOUTH CREEK FLOOD STUDY REVIEW
PRECINCT DEVELOPMENT AREAS

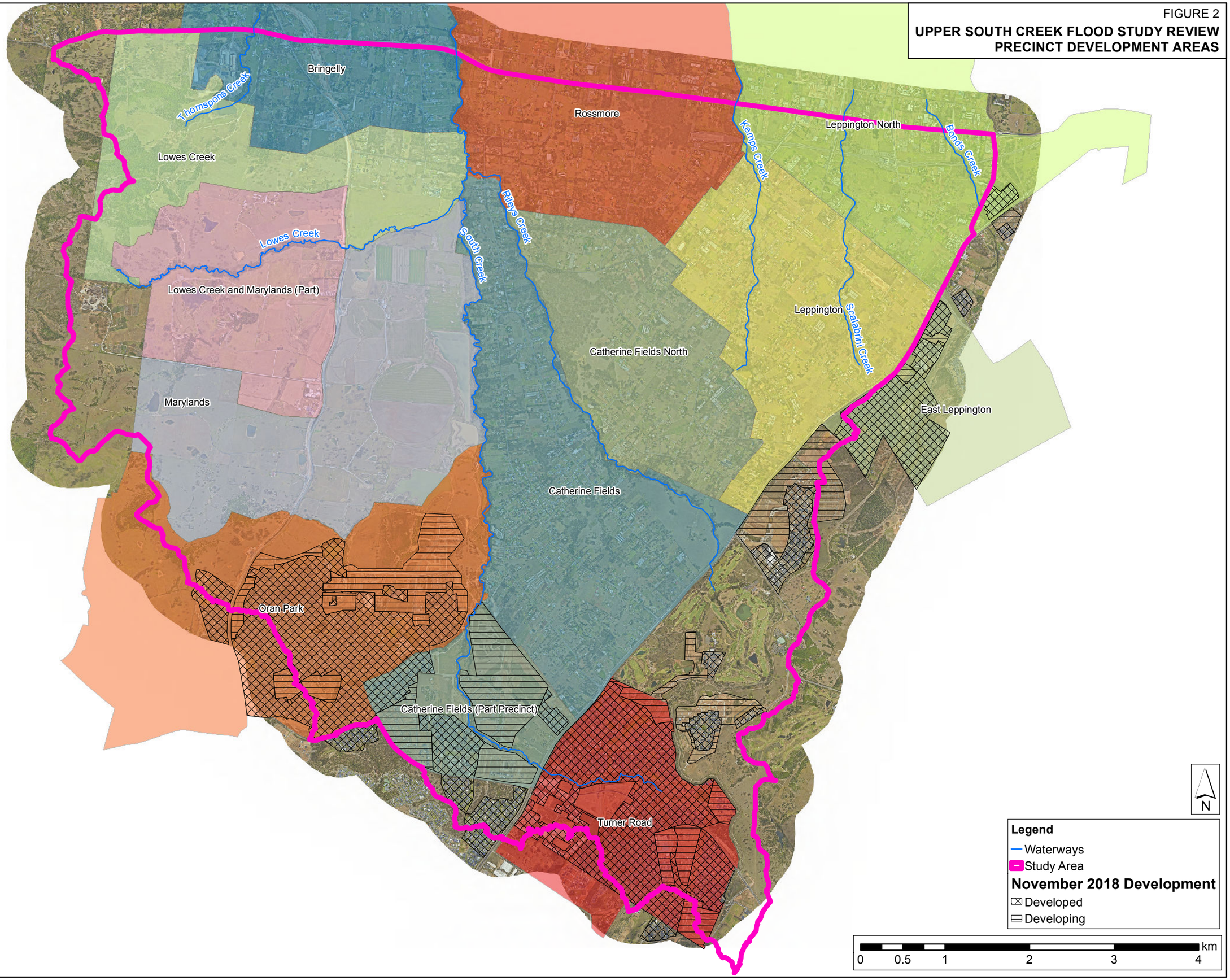

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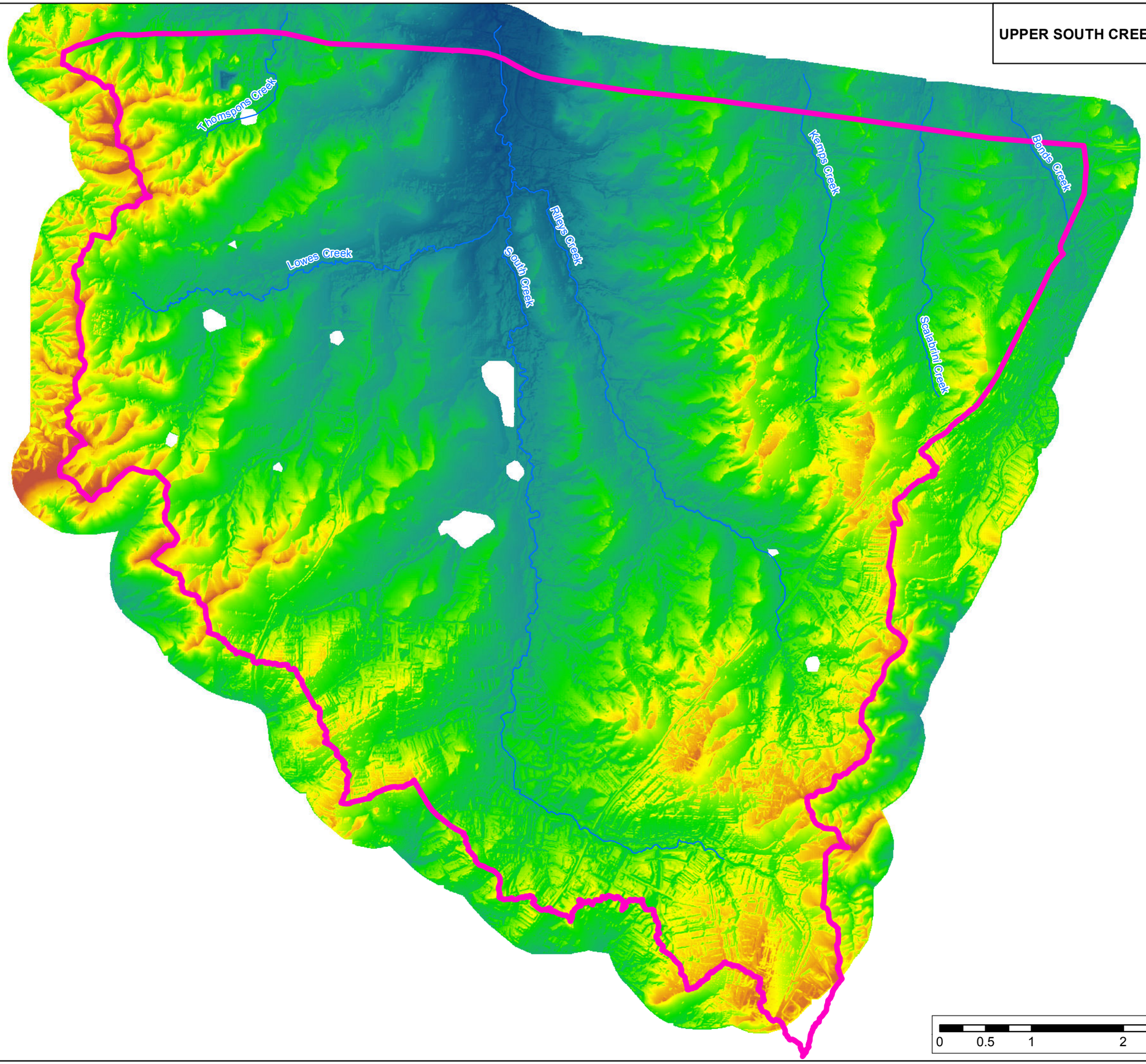
FIGURE 3

UPPER SOUTH CREEK FLOOD STUDY REVIEW
LIDAR DATA



N

Legend
Waterways
Study Area
LiDAR Elevation (mAHD)
High : 185
Low : 50

0 0.5 1 2 3 4 km

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FIGURE 4

UPPER SOUTH CREEK FLOOD STUDY REVIEW
LINEAR INFRASTRUCTURE

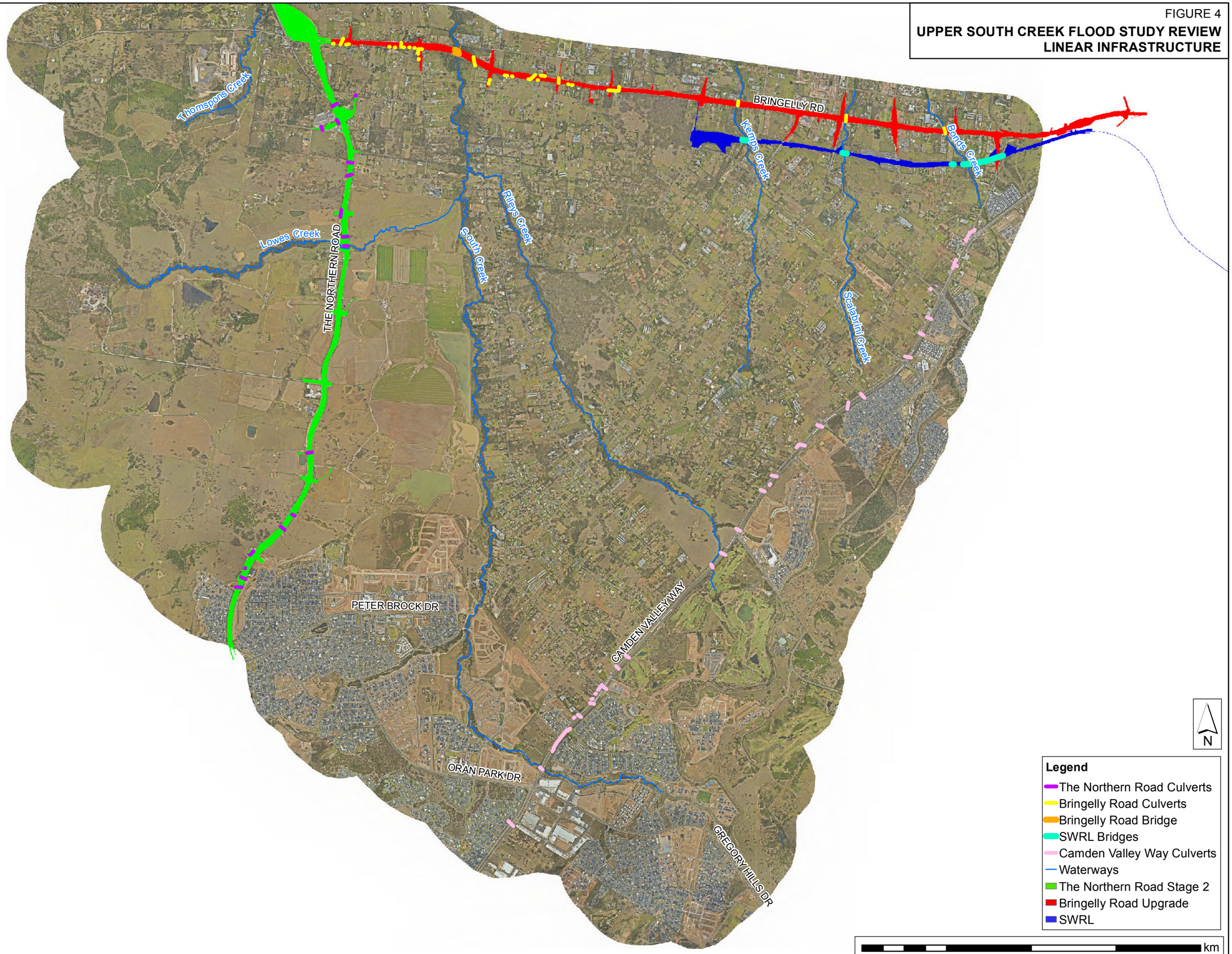

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FIGURE 5

UPPER SOUTH CREEK FLOOD STUDY REVIEW
HYDRAULIC STRUCTURES

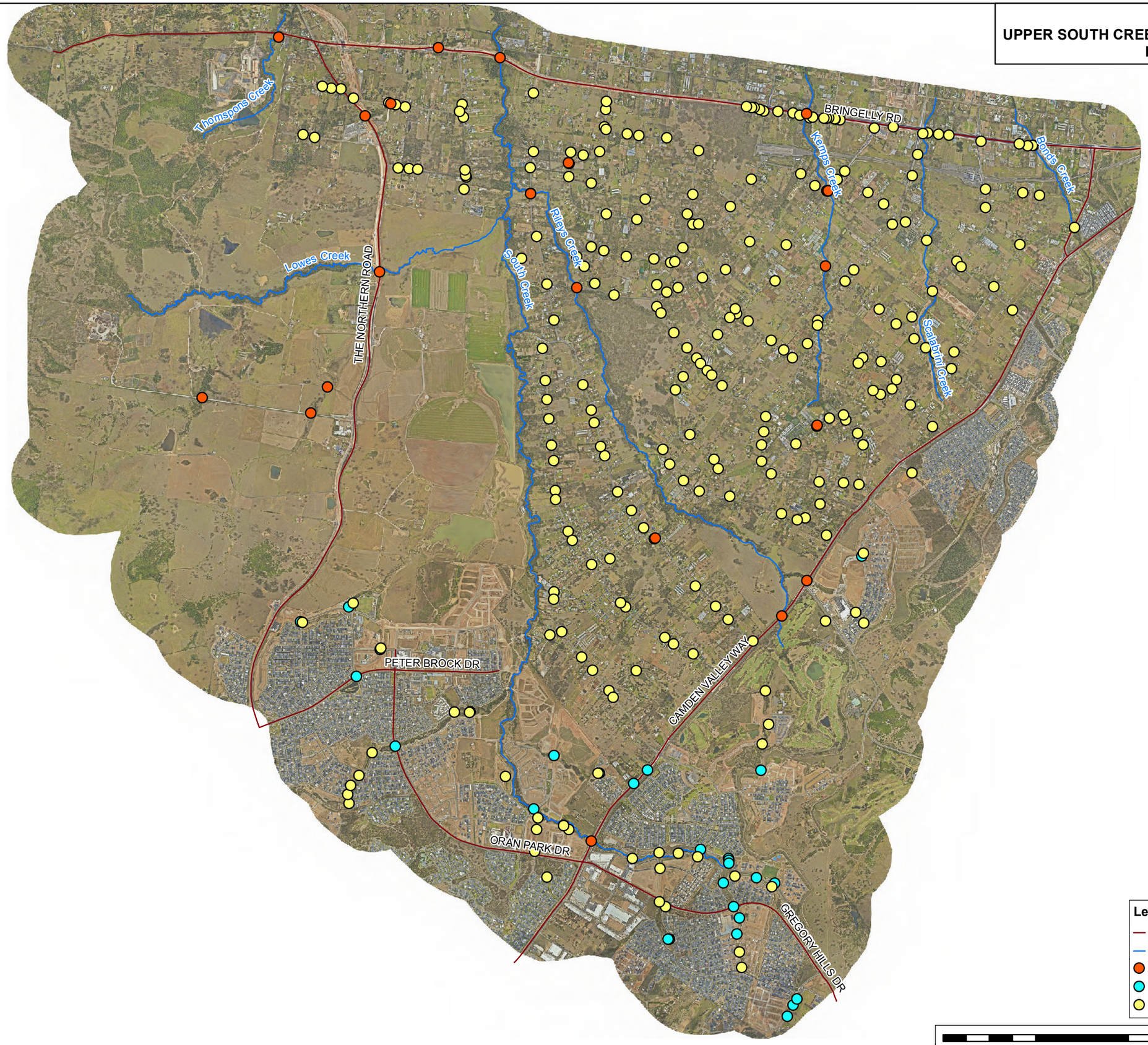

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FIGURE 6

UPPER SOUTH CREEK FLOOD STUDY REVIEW
DETENTION BASINS

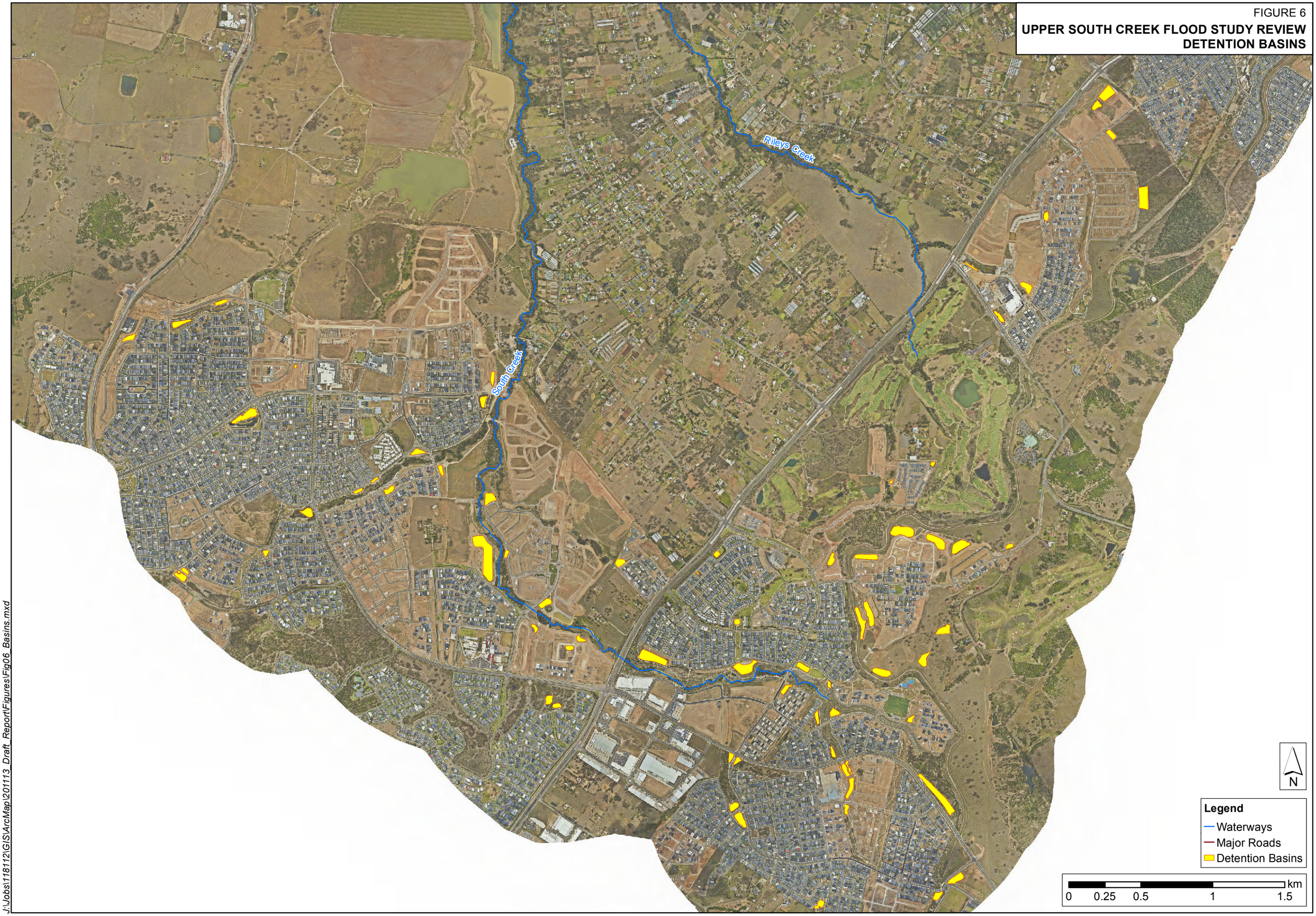

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FIGURE 7

UPPER SOUTH CREEK FLOOD STUDY REVIEW GAUGES

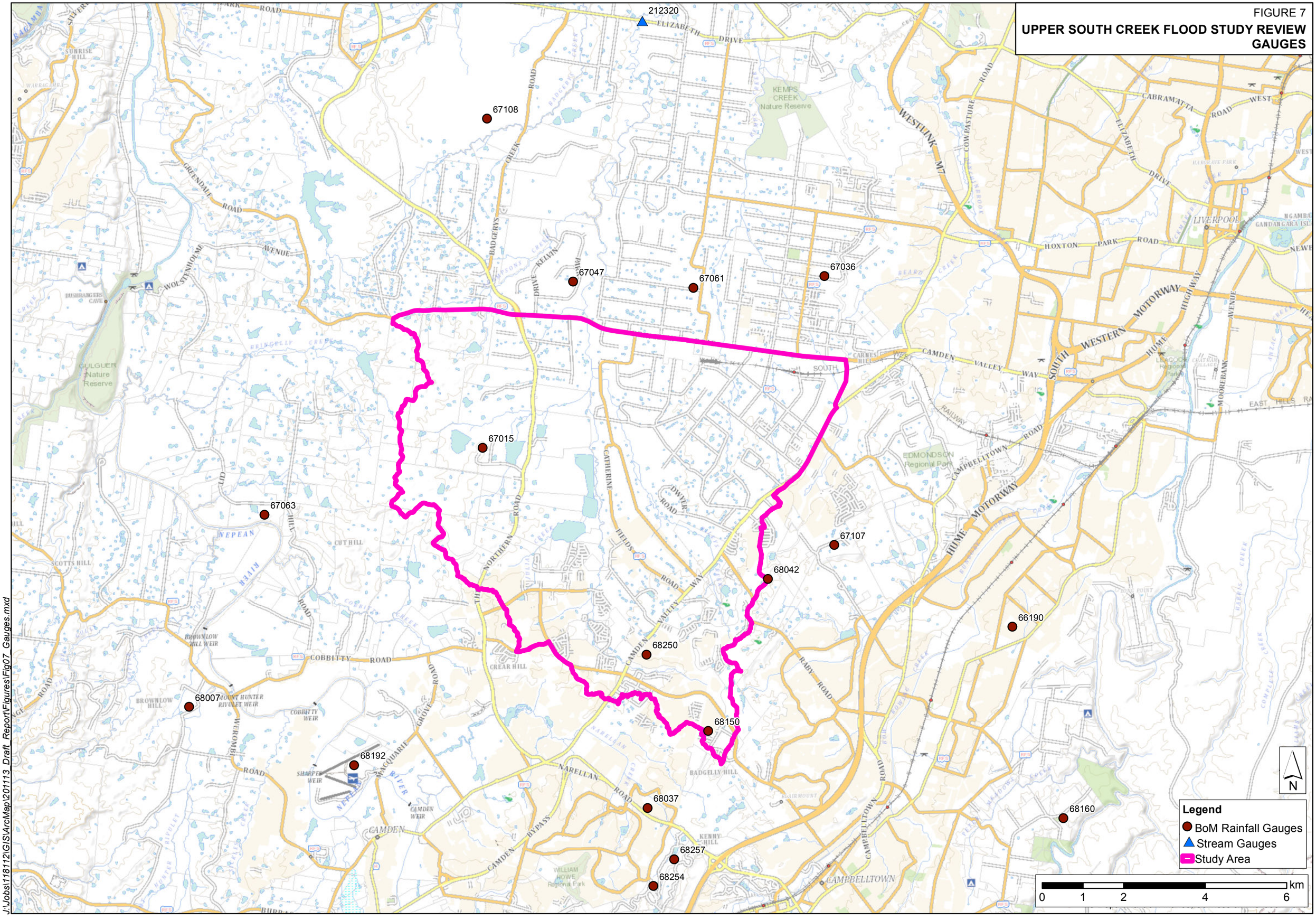

FIGURE 8

UPPER SOUTH CREEK FLOOD STUDY REVIEW
RAINFALL SPATIAL DISTRIBUTION
JUNE 2016 EVENT

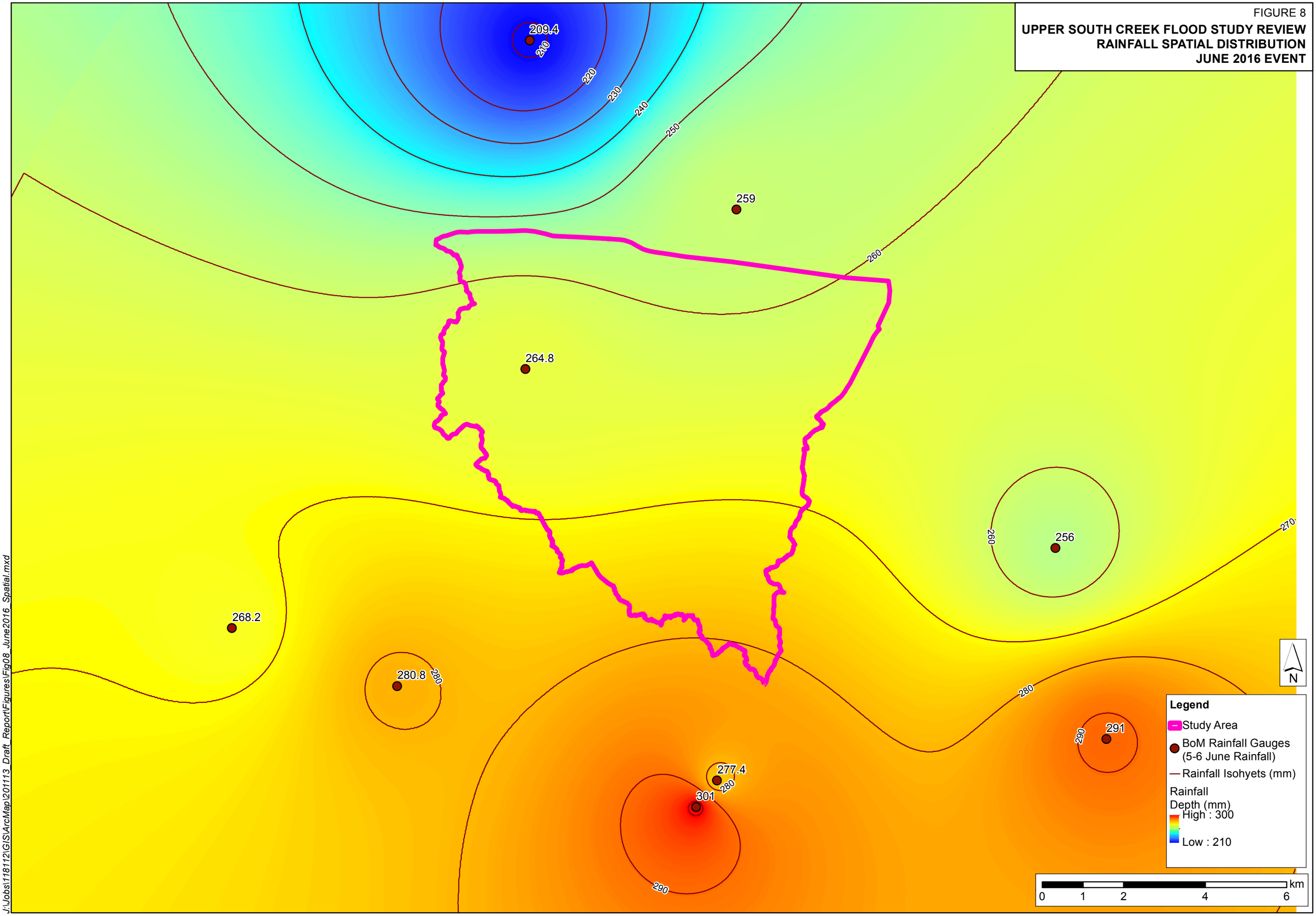

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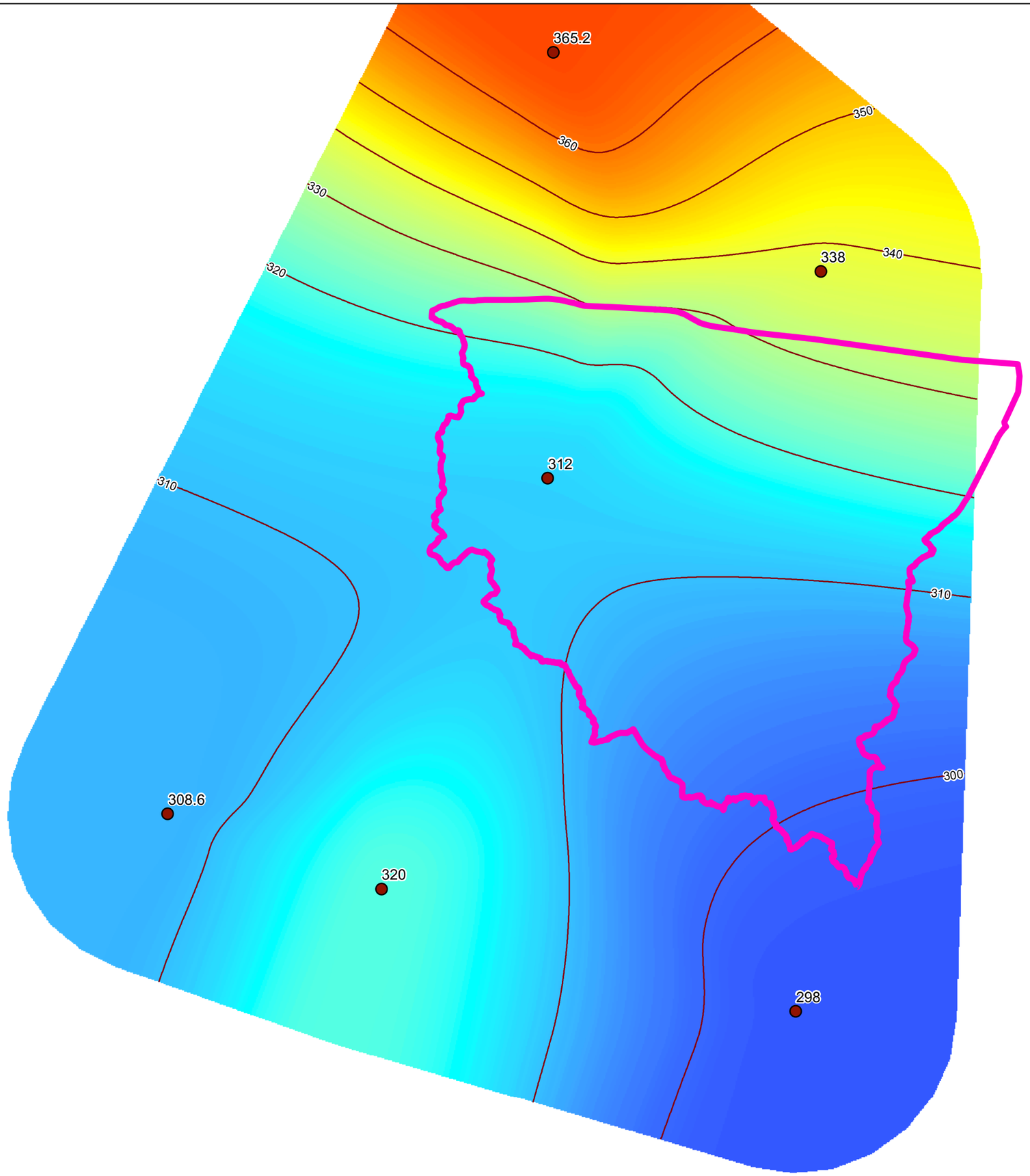
FIGURE 9

UPPER SOUTH CREEK FLOOD STUDY REVIEW
RAINFALL SPATIAL DISTRIBUTION
FEBRUARY 2020 EVENT



N

Legend

Study Area

BoM Rainfall Gauges (7-11 February Rainfall)

Rainfall Isohyets (mm)

Rainfall Depth (mm)

High : 370

Low : 290

0 1 2 4 6 km

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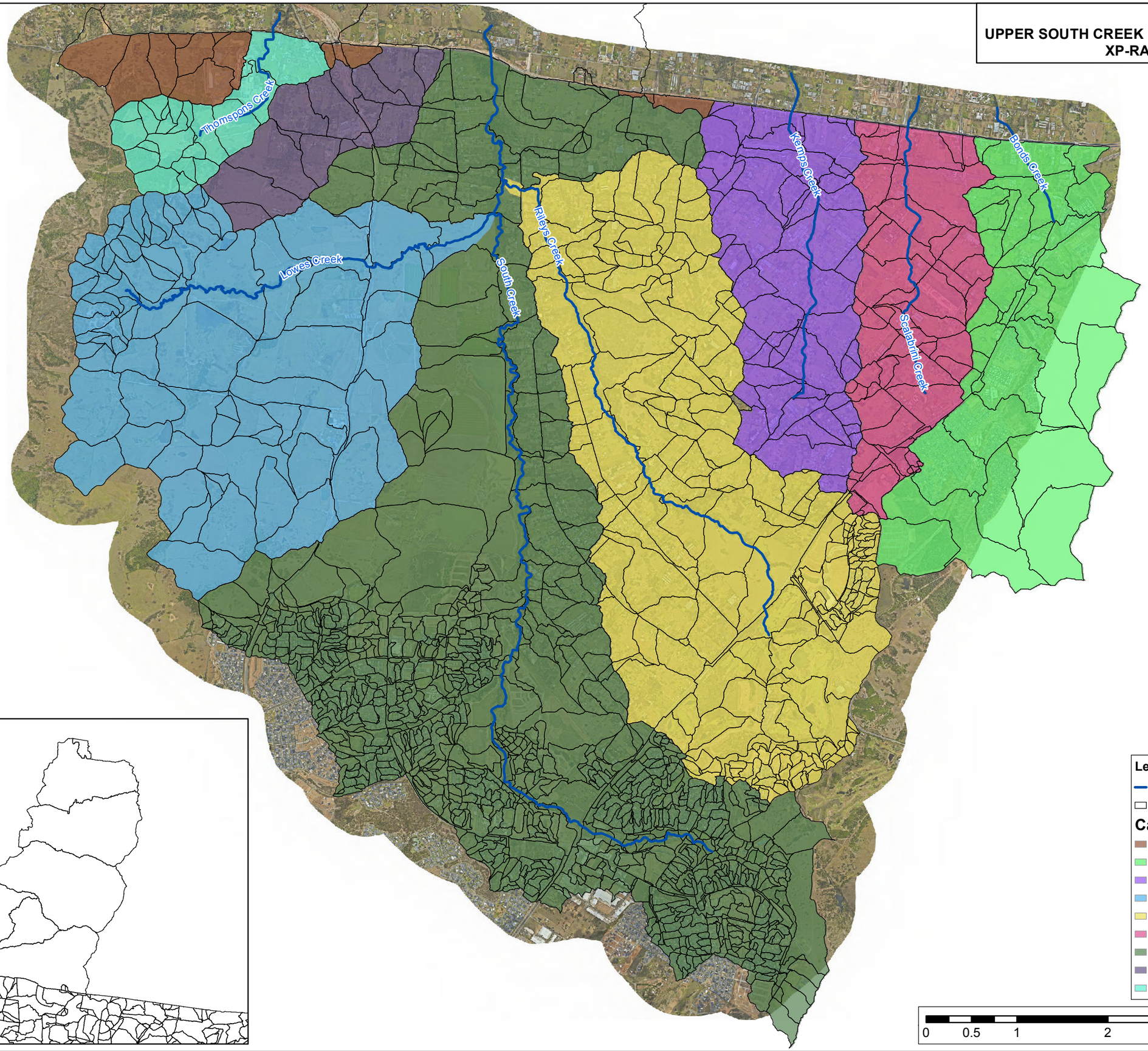
FIGURE 14

UPPER SOUTH CREEK FLOOD STUDY REVIEW
XP-RAFTS SUBCATCHMENTS



Downstream Subcatchments

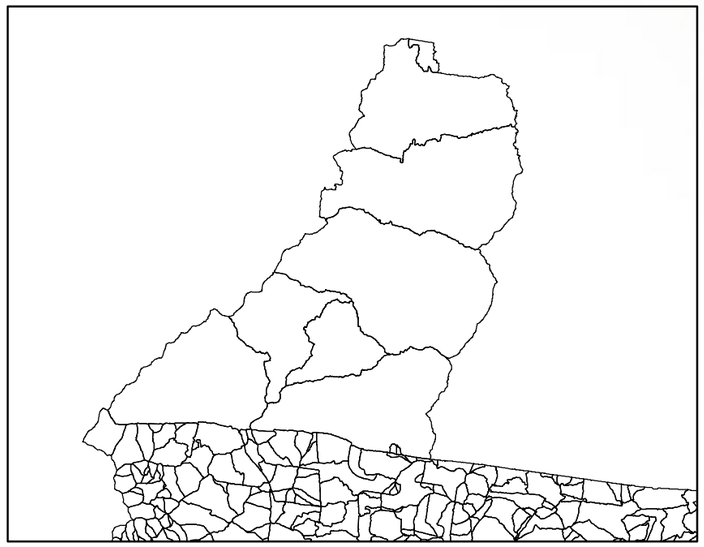


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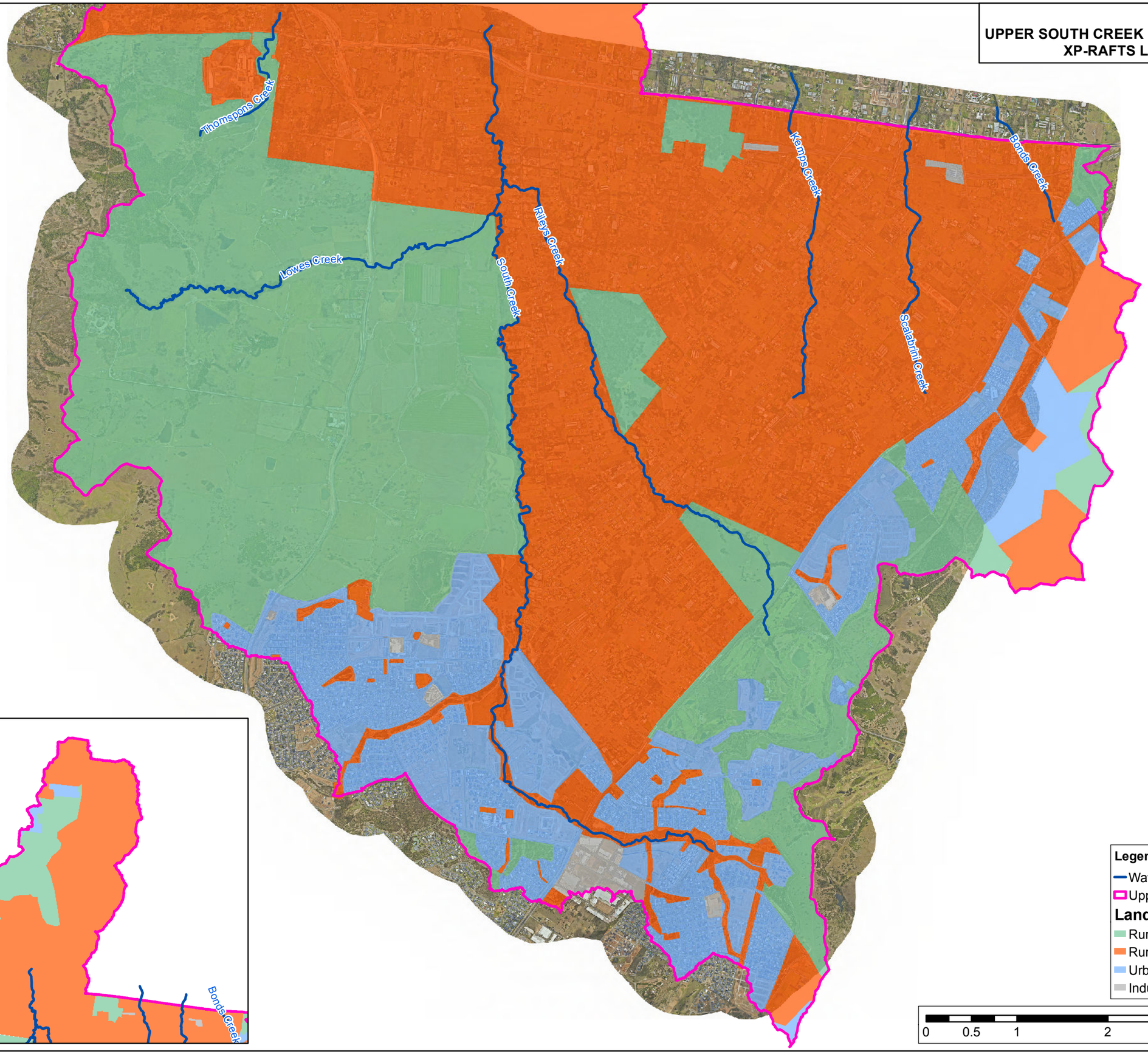
FIGURE 15

UPPER SOUTH CREEK FLOOD STUDY REVIEW
XP-RAFTS LAND USE CATEGORIES



Downstream Subcatchments

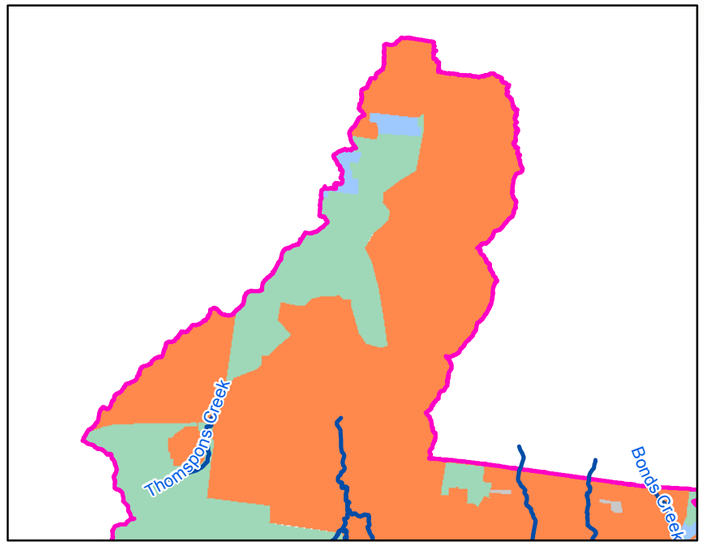


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FIGURE 16

UPPER SOUTH CREEK FLOOD STUDY REVIEW
TUFLOW MODEL DOMAIN

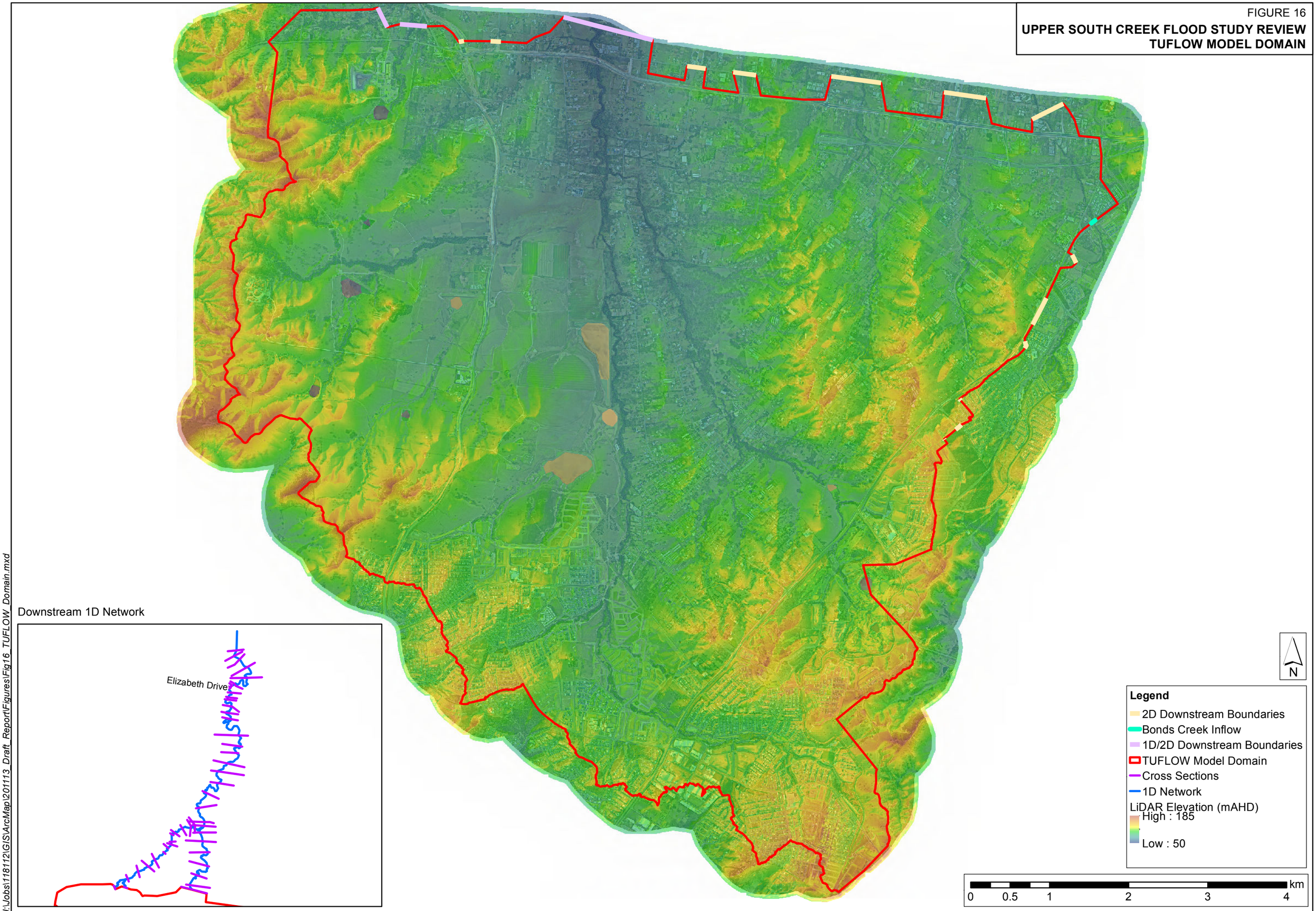

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FIGURE 17

UPPER SOUTH CREEK FLOOD STUDY REVIEW
TUFLOW SURFACE ROUGHNESS

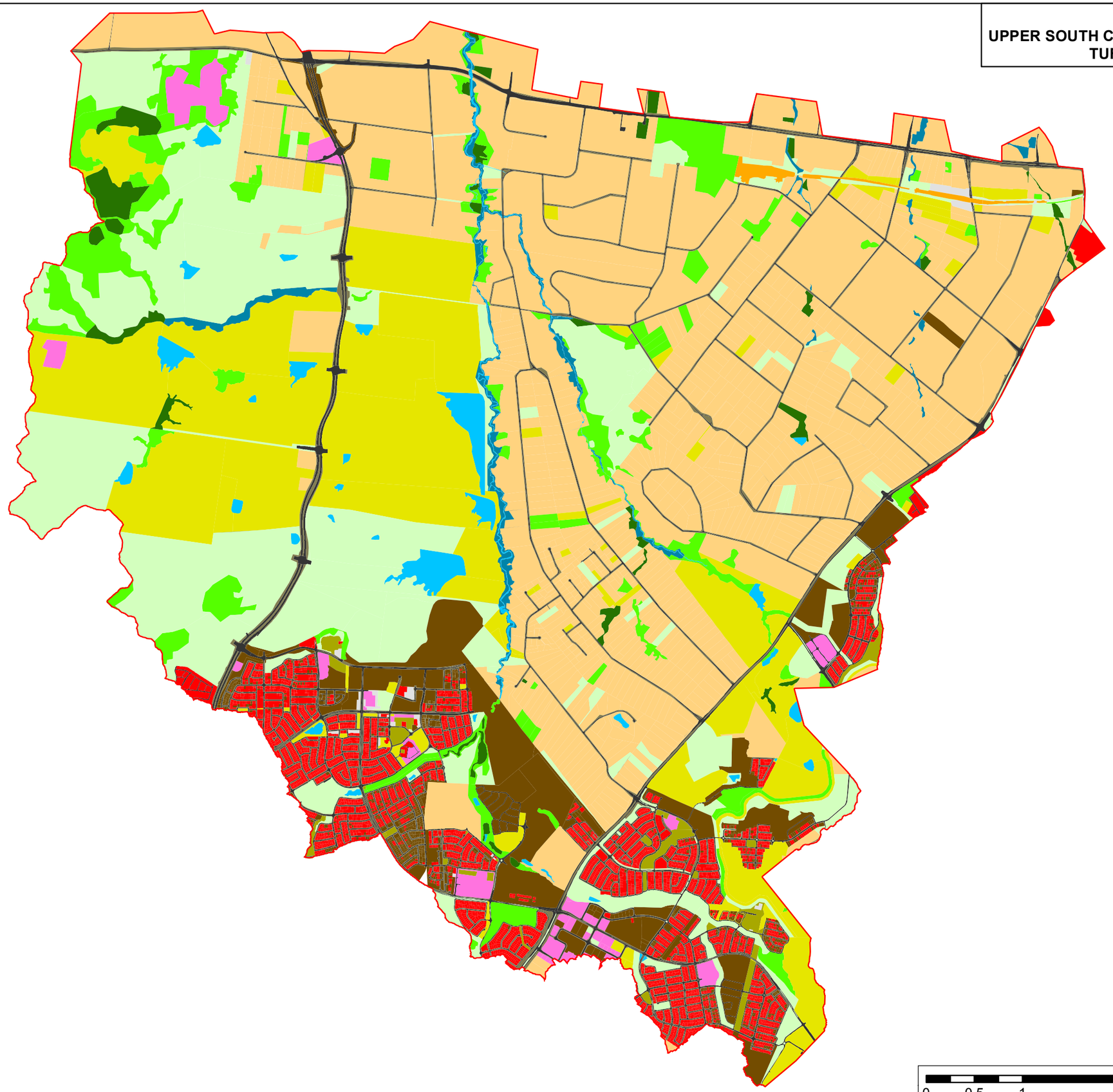

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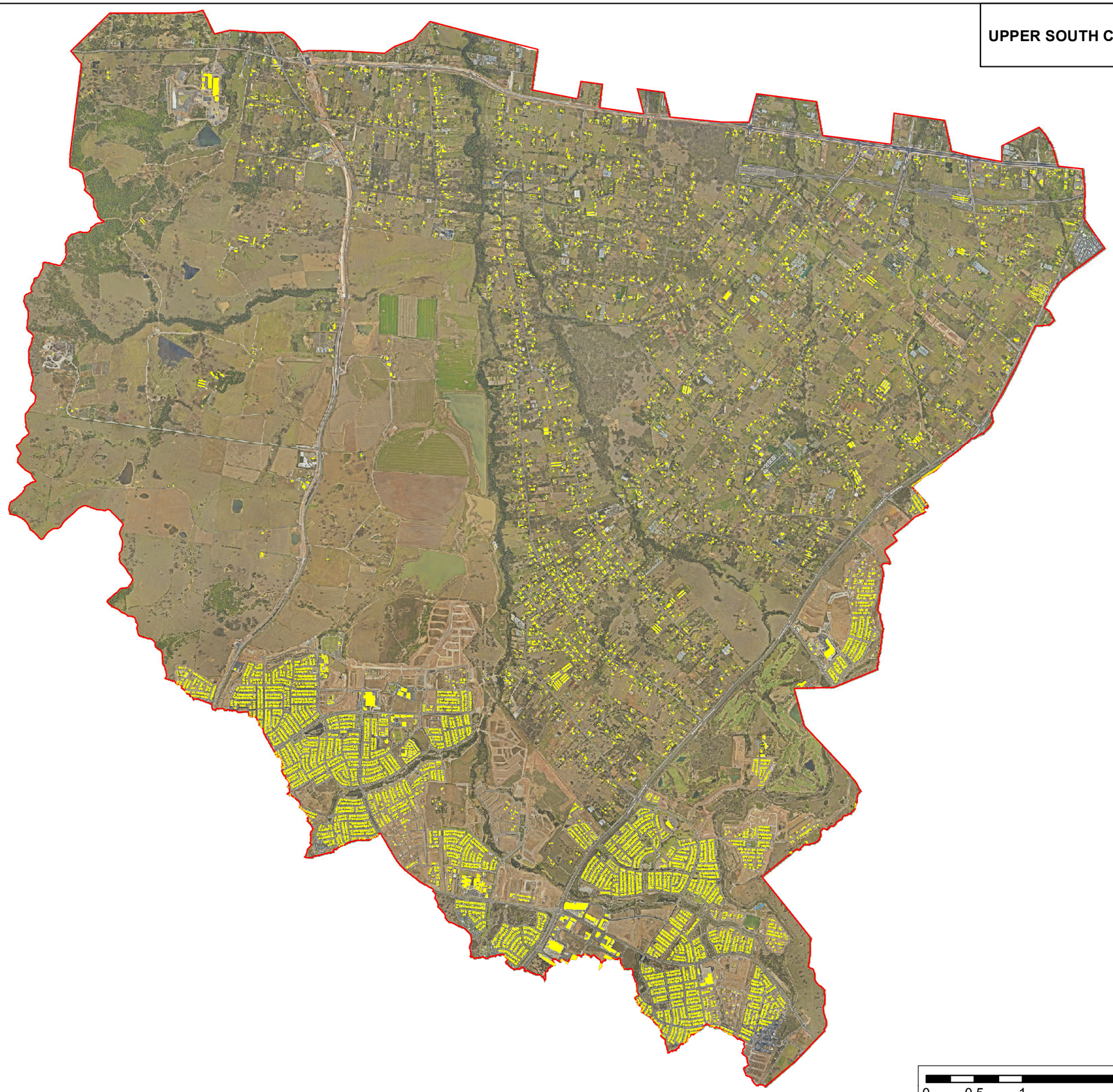
FIGURE 18

UPPER SOUTH CREEK FLOOD STUDY REVIEW
TUFLOW BUILDINGS



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Legend

- Buildings
- TUFLOW Model Domain

0 0.5 1 2 3 4 km

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FIGURE 19

UPPER SOUTH CREEK FLOOD STUDY REVIEW
TUFLOW PIT AND PIPE NETWORK

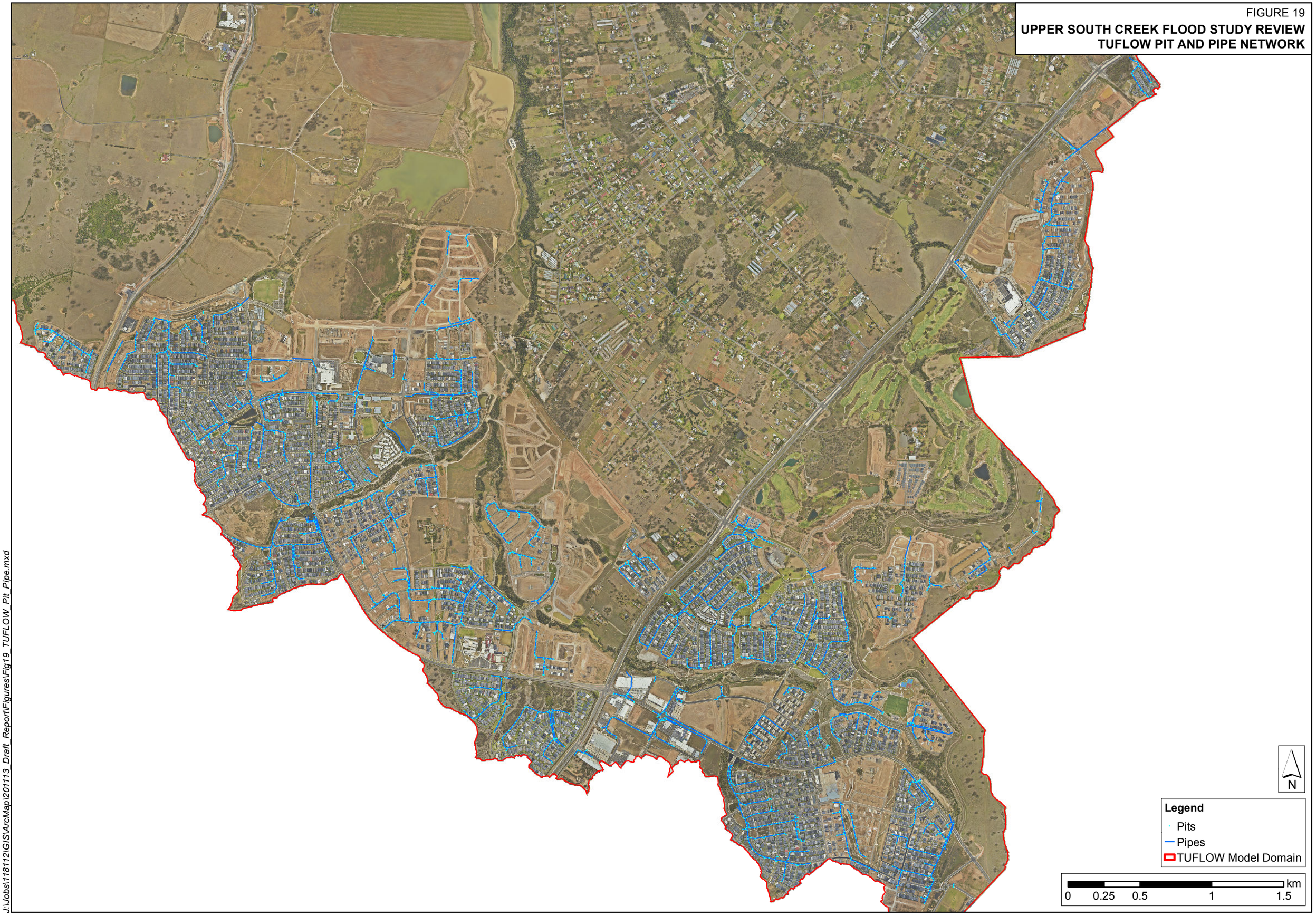

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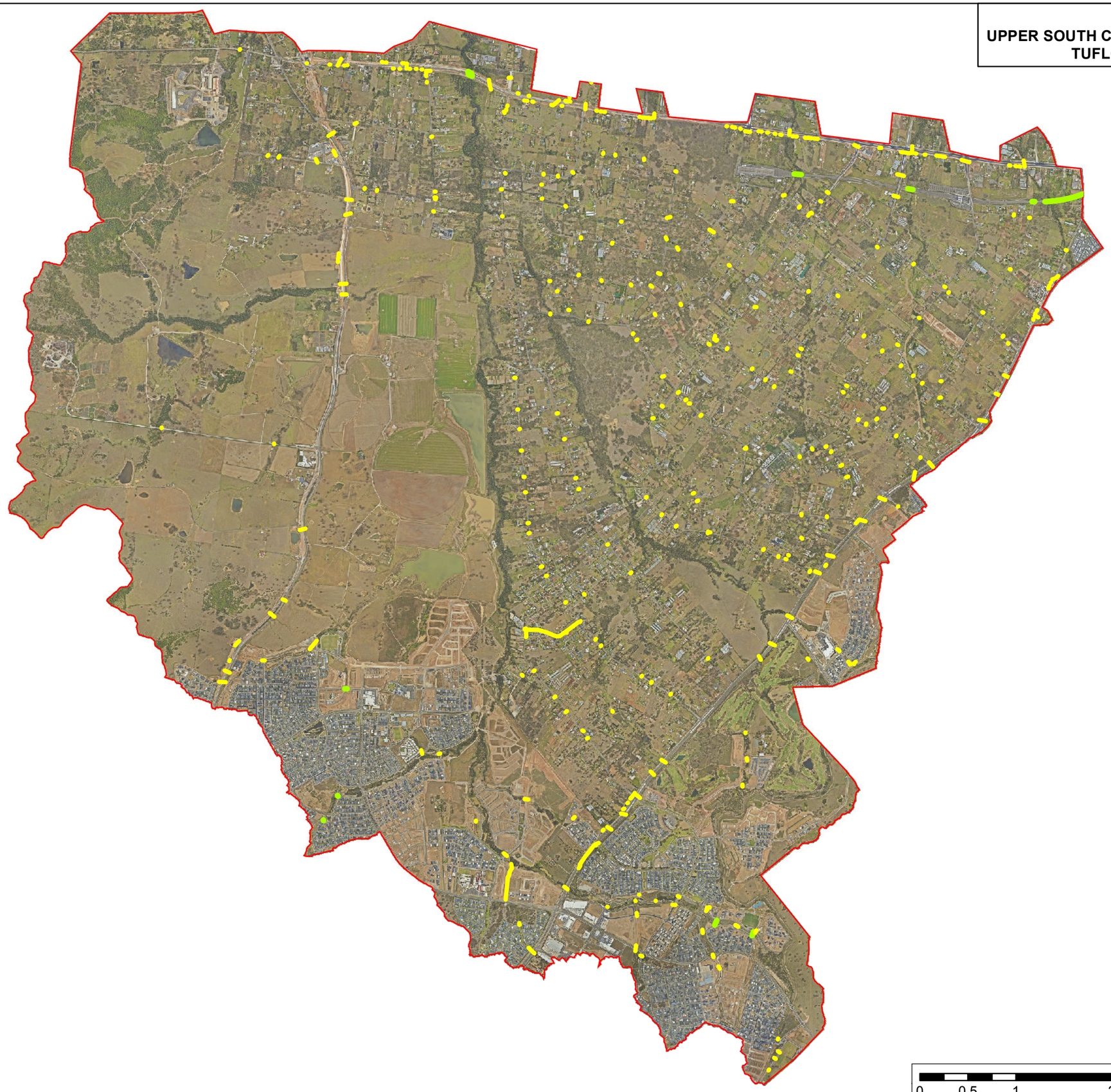
FIGURE 20

UPPER SOUTH CREEK FLOOD STUDY REVIEW
TUFLOW CULVERTS AND BRIDGES



N

Legend
- Culverts
- Bridges
- TUFLOW Model Domain

0 0.5 1 2 3 4 Km

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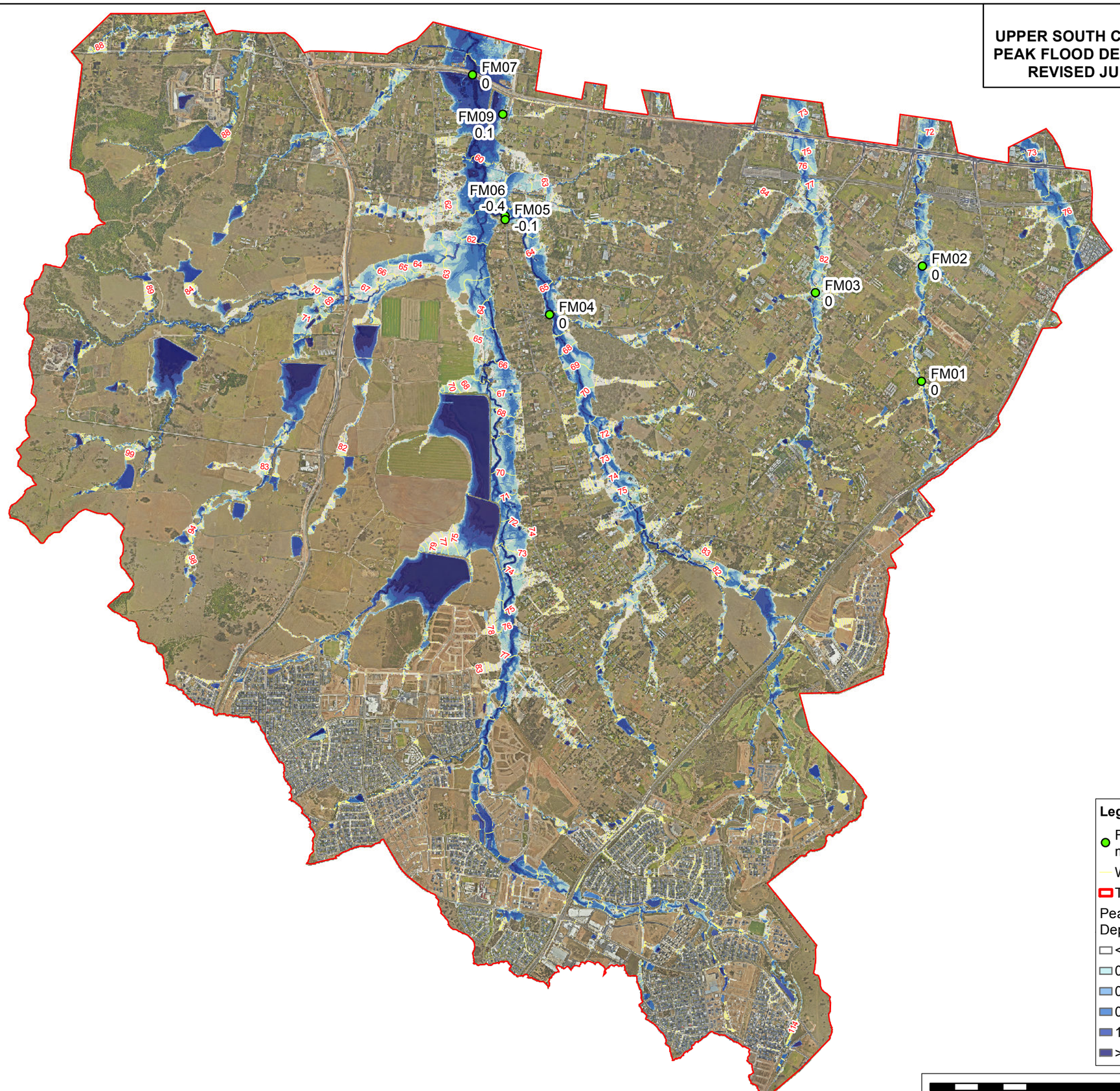
FIGURE 21A

UPPER SOUTH CREEK FLOOD STUDY REVIEW
PEAK FLOOD DEPTHS AND LEVEL CONTOURS
REVISED JUNE 2016 CALIBRATION EVENT



N

Legend

- Flood Marks & difference between modelled and surveyed flood levels
- Water Level Contour (1m Interval)
- TUFLOW Model Domain

Peak Flood Depth (m)

- < 0.1
- 0.1 to 0.3
- 0.3 to 0.5
- 0.5 to 1
- 1 - 2
- > 2

0 0.5 1 2 3 4 km

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FIGURE 21B

UPPER SOUTH CREEK FLOOD STUDY REVIEW
PEAK FLOOD DEPTHS AND LEVEL CONTOURS
REVISED JUNE 2016 CALIBRATION EVENT

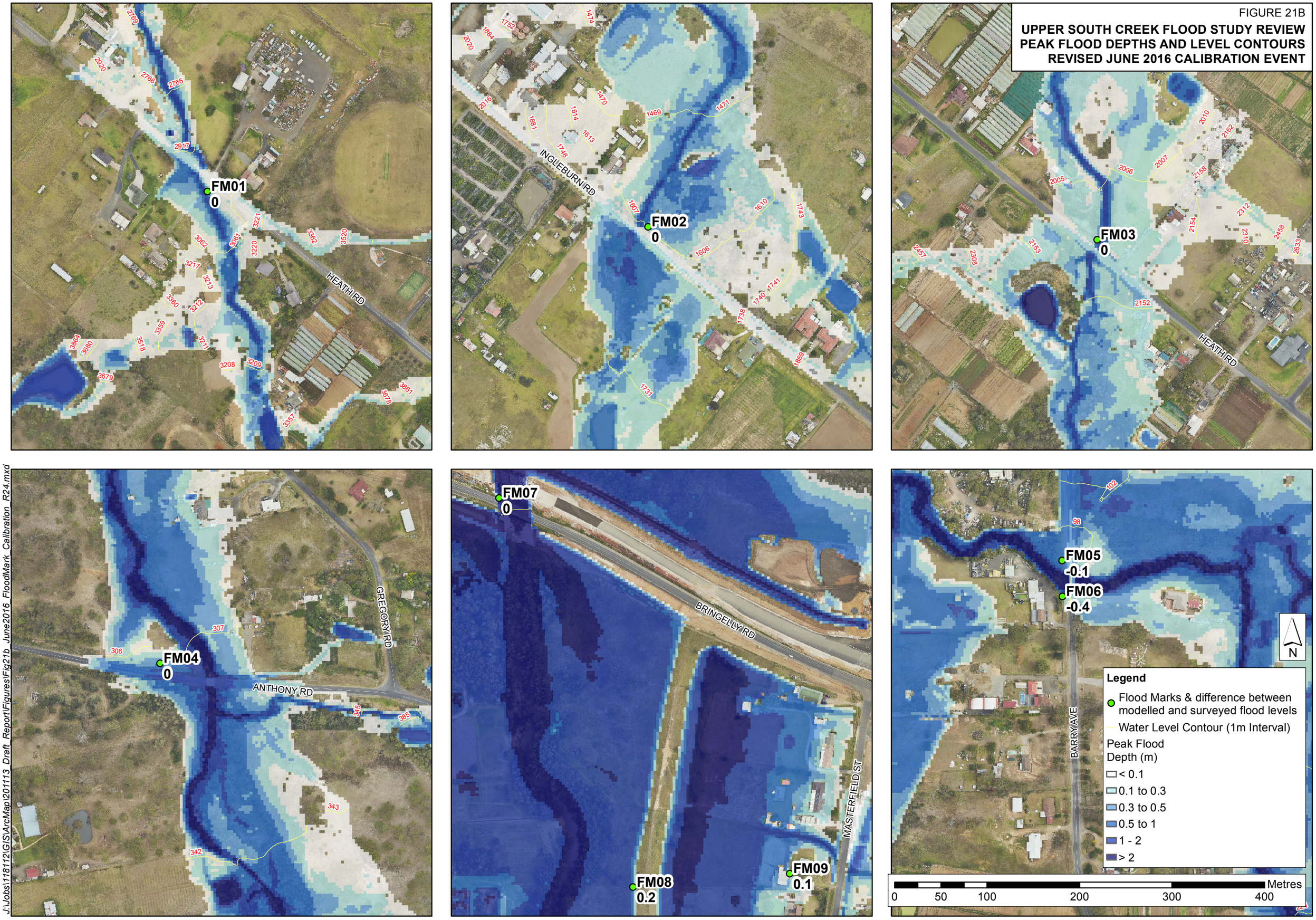

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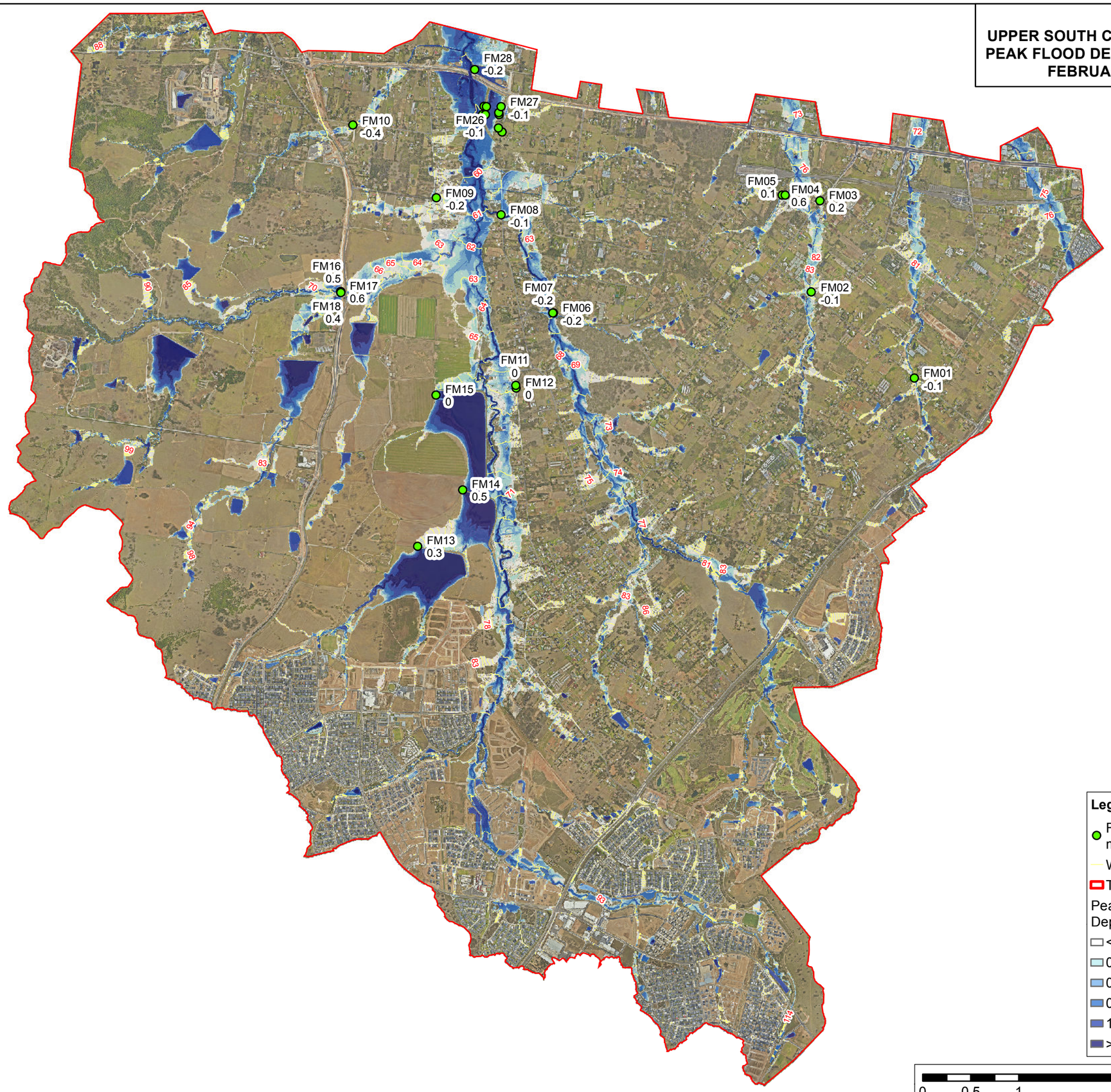
FIGURE 23A

UPPER SOUTH CREEK FLOOD STUDY REVIEW
PEAK FLOOD DEPTHS AND LEVEL CONTOURS
FEBRUARY 2020 CALIBRATION EVENT



N

Legend

- Flood Marks & difference between modelled and surveyed flood levels
- Water Level Contour (1m Interval)
- TUFLOW Model Domain

Peak Flood Depth (m)

- < 0.1
- 0.1 to 0.3
- 0.3 to 0.5
- 0.5 to 1
- 1 - 2
- > 2

0 0.5 1 2 3 4 km

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FIGURE 23B

UPPER SOUTH CREEK FLOOD STUDY REVIEW
PEAK FLOOD DEPTHS AND LEVEL CONTOURS
FEBRUARY 2020 CALIBRATION EVENT

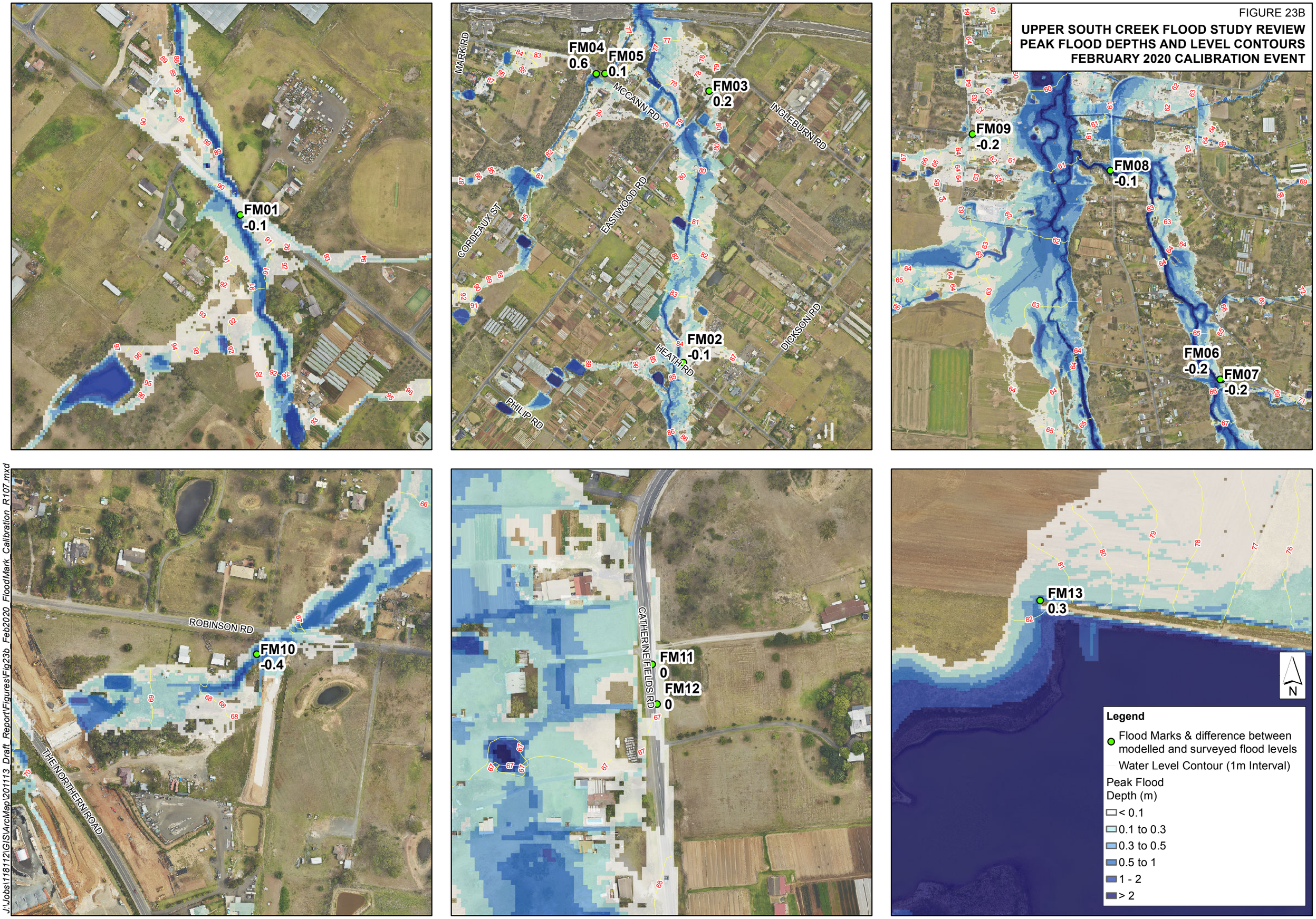

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FIGURE 23C

UPPER SOUTH CREEK FLOOD STUDY REVIEW
PEAK FLOOD DEPTHS AND LEVEL CONTOURS
FEBRUARY 2020 CALIBRATION EVENT

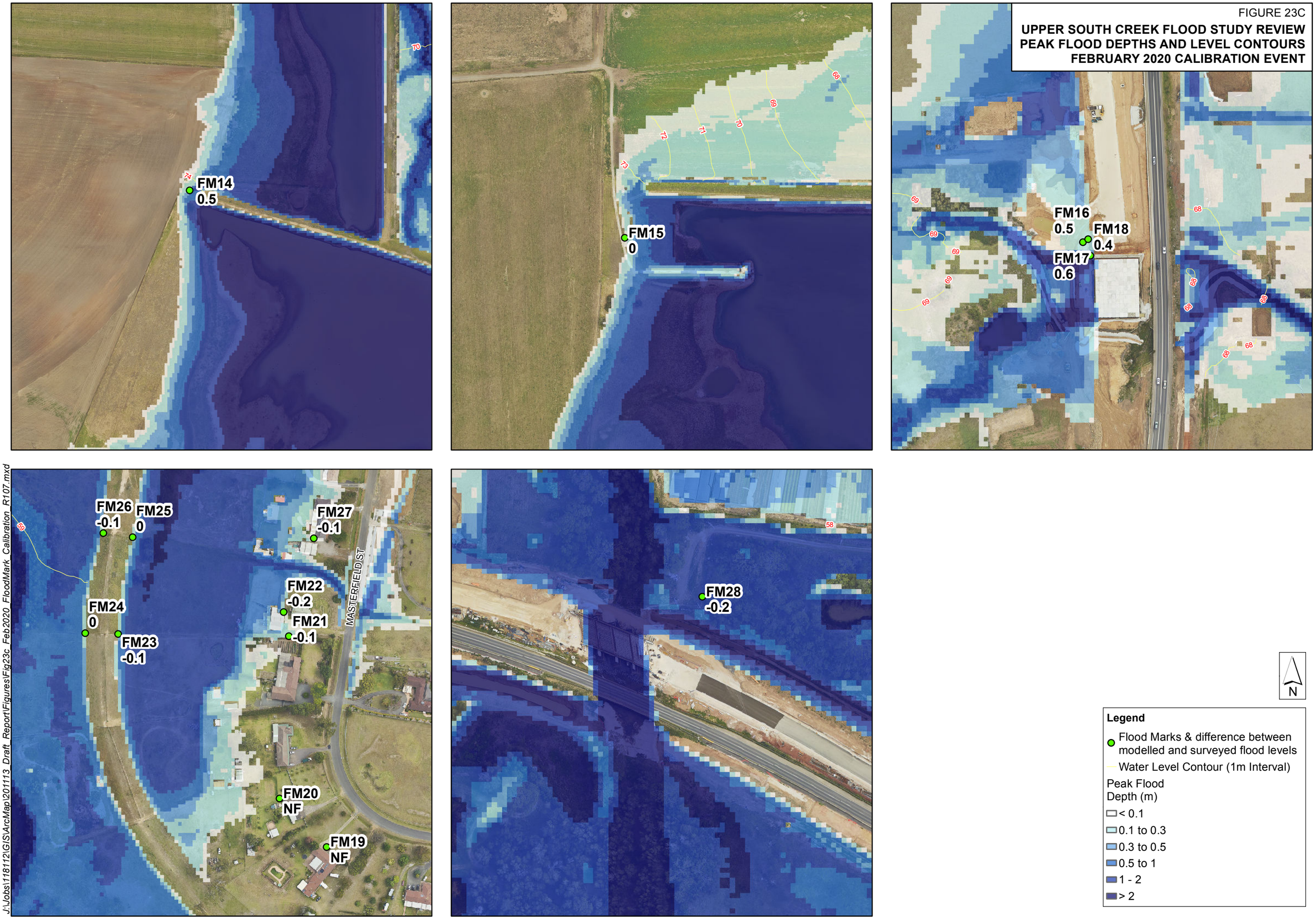

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FIGURE 25

UPPER SOUTH CREEK FLOOD STUDY REVIEW
WBNM SUBCATCHMENTS AND KEY LOCATIONS

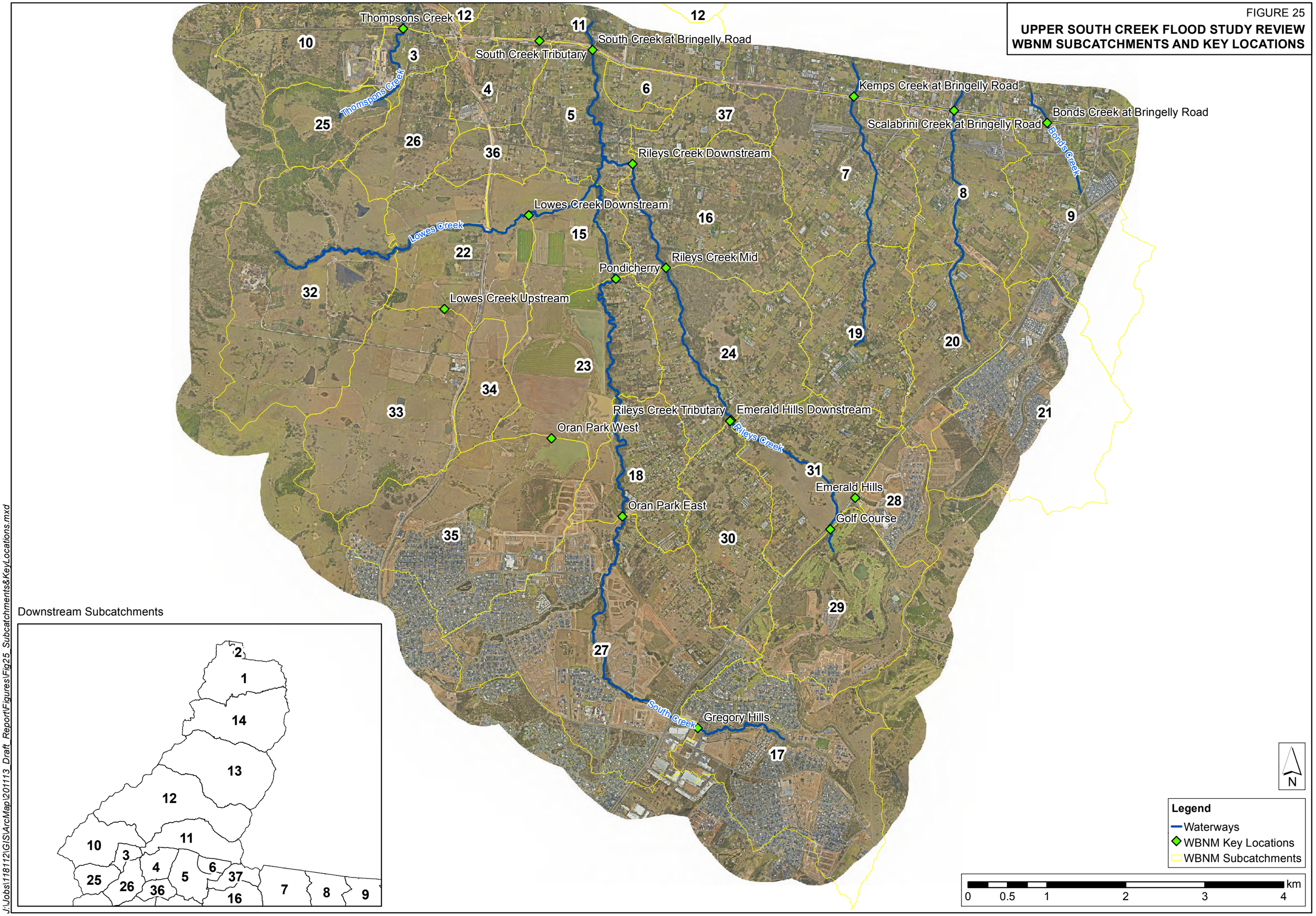

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FIGURE 26

UPPER SOUTH CREEK FLOOD STUDY REVIEW
REPORTING LOCATIONS

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FIGURE 27a

UPPER SOUTH CREEK FLOOD STUDY REVIEW
FLOOD DAMAGES ASSESSMENT

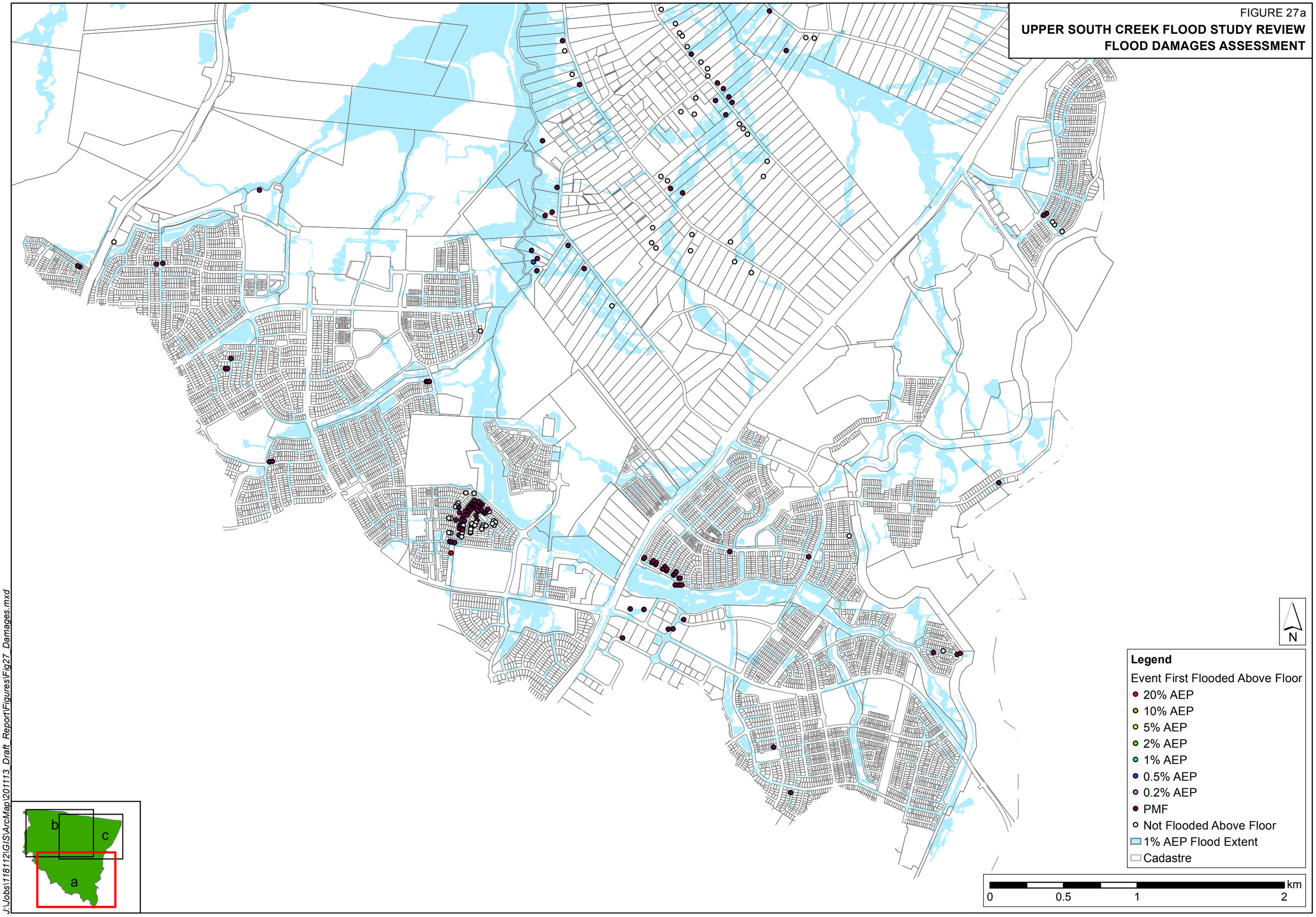

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FIGURE 27b

UPPER SOUTH CREEK FLOOD STUDY REVIEW
FLOOD DAMAGES ASSESSMENT

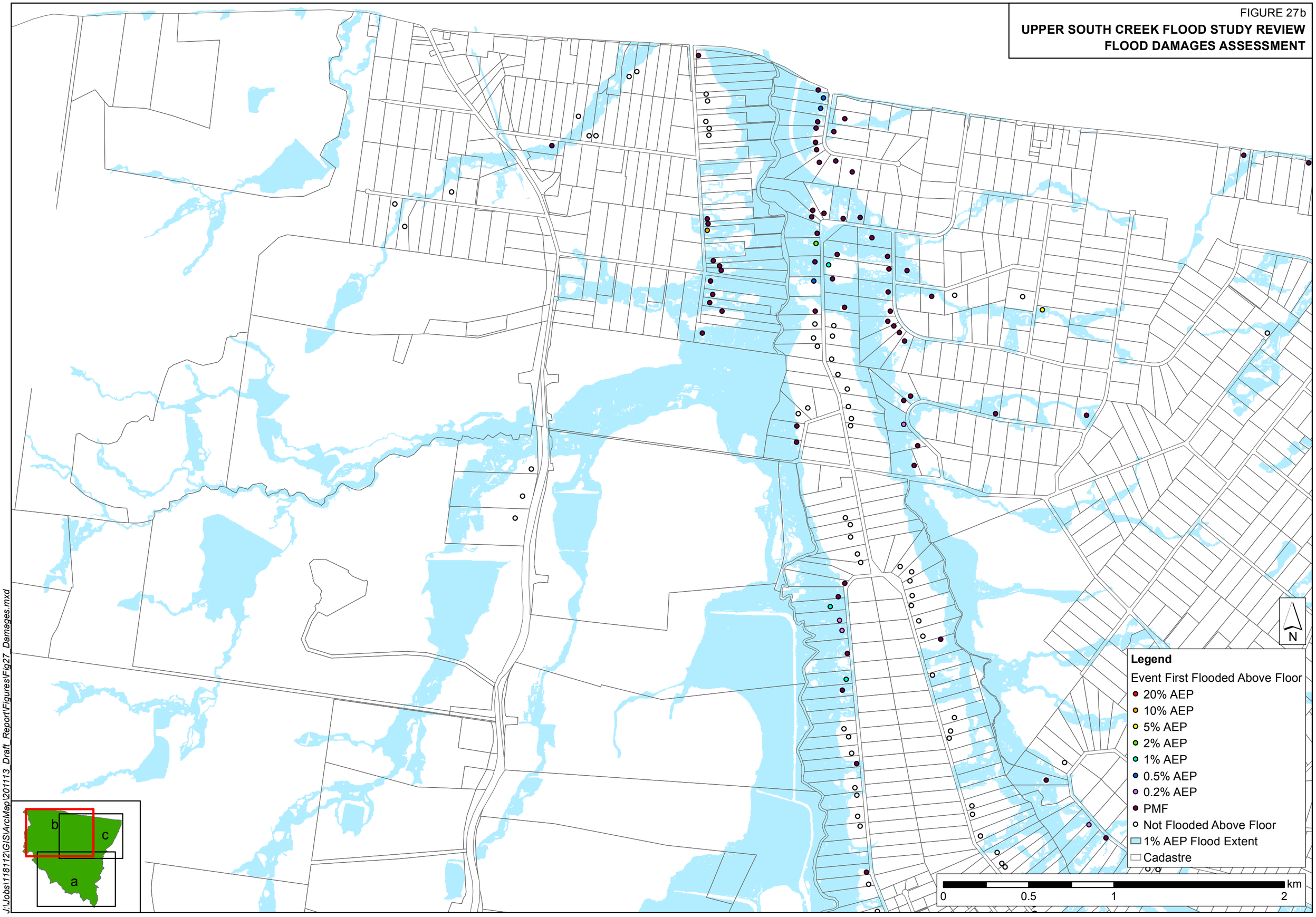

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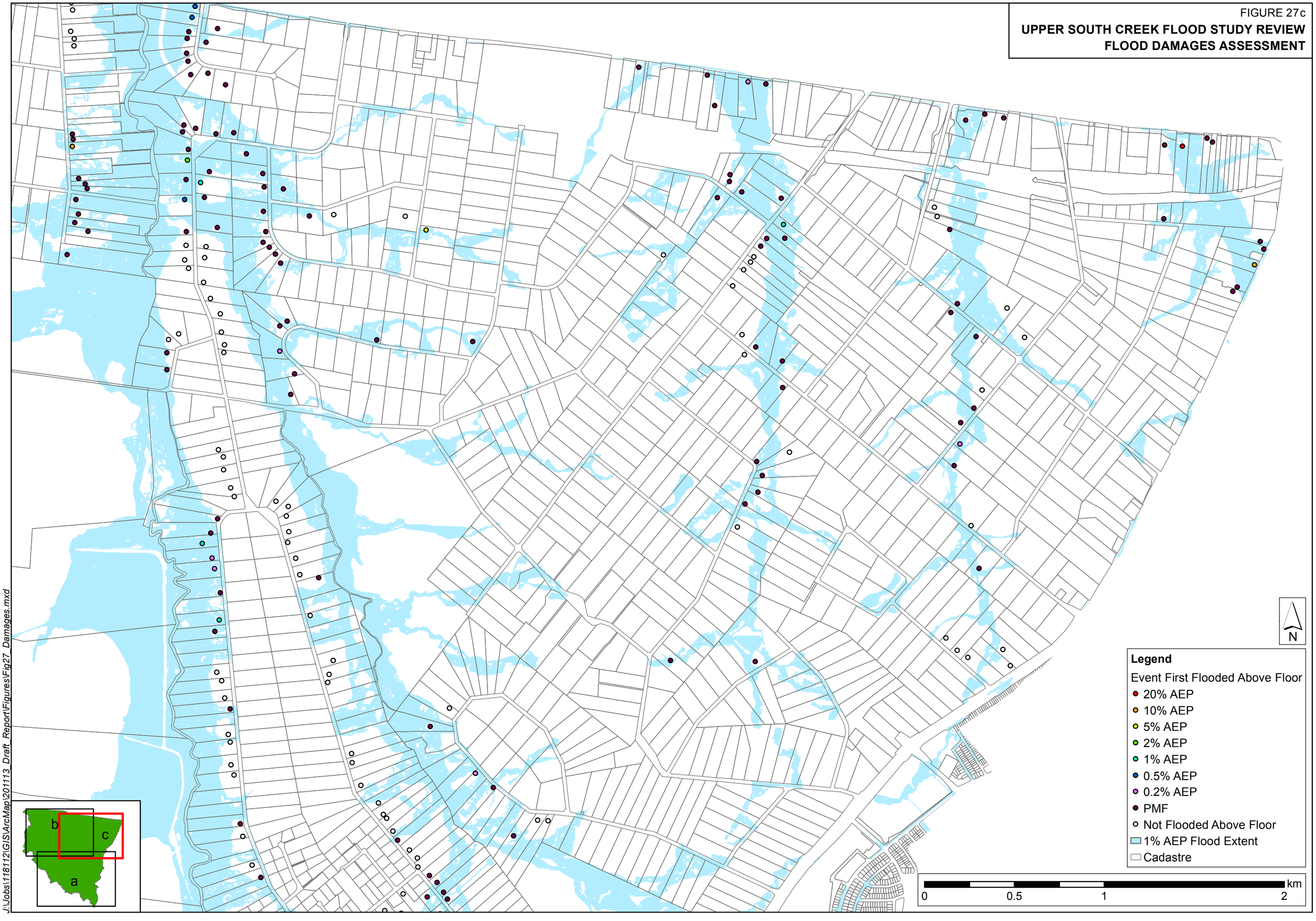
FIGURE 27c

UPPER SOUTH CREEK FLOOD STUDY REVIEW
FLOOD DAMAGES ASSESSMENT



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