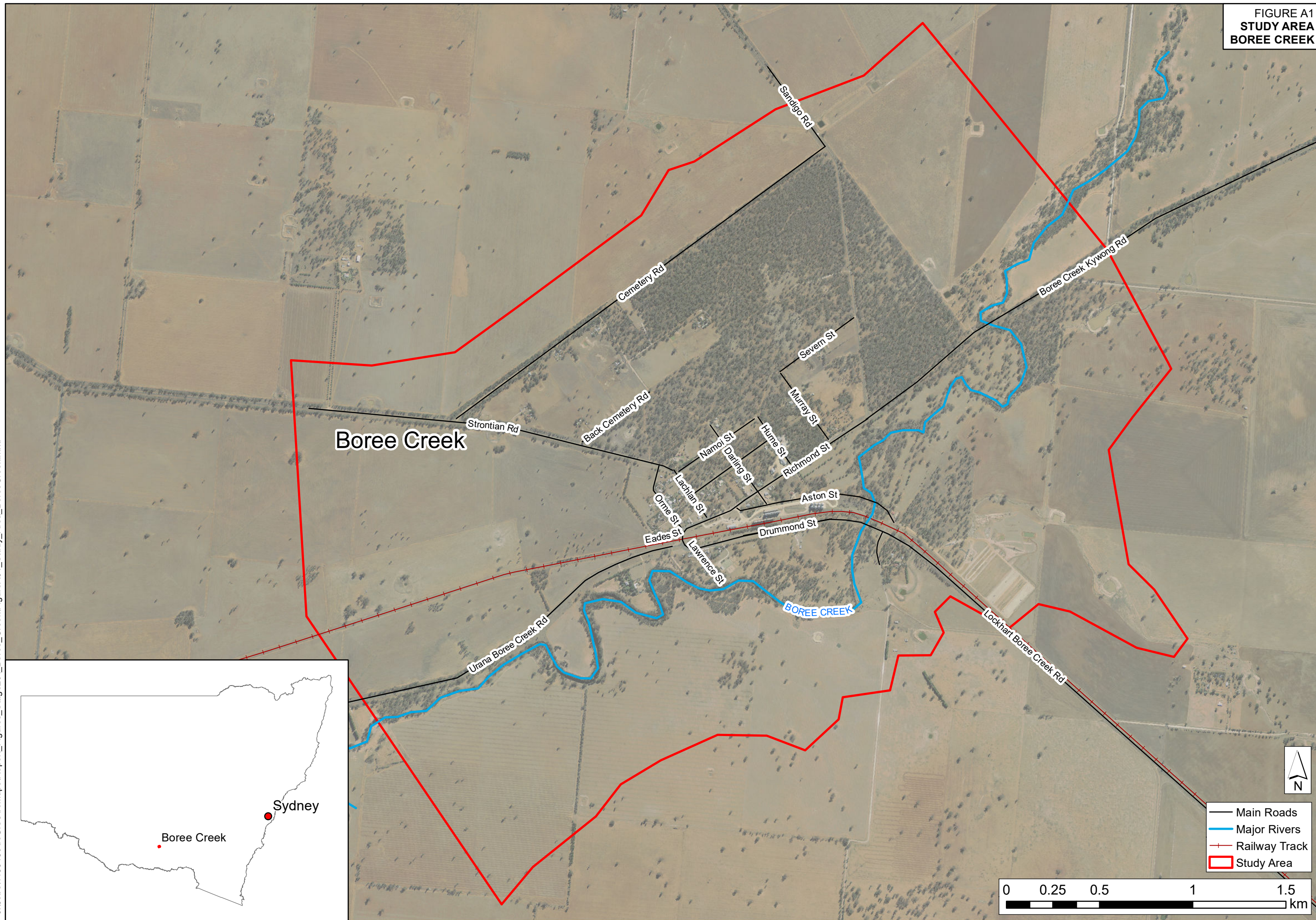


FEDERATION VILLAGES FLOODPLAIN RISK MANAGEMENT STUDY AND PLAN APPENDIX A BOREE CREEK FINAL – VOLUME II

Figure A1: Study Area
Figure A2: Land Use Zonings
Figure A3: Site Inspection Photographs
Figure A4: Topographic Data
Figure A5: Hydrologic and Hydraulic Model Domains
Figure A6: XP-RAFTS Model Sub-catchment Delineation
Figure A7: Hydraulic Roughness and Hydraulic Structures
Figure A8: Design Event – Peak Flood Depths and Levels – 20% AEP Event
Figure A9: Design Event – Peak Flood Depths and Levels – 10% AEP Event
Figure A10: Design Event – Peak Flood Depths and Levels – 5% AEP Event
Figure A11: Design Event – Peak Flood Depths and Levels – 2% AEP Event
Figure A12: Design Event – Peak Flood Depths and Levels – 1% AEP Event
Figure A13: Design Event – Peak Flood Depths and Levels – 1 in 200 Event
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Figure A20: Hydraulic Categorisation – 5% AEP Event
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Figure A23: Option FMBC-01 – Peak Flood Level Impact 5% AEP Event
Figure A24: Option FMBC-01 – Peak Flood Level Impact 1% AEP Event
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Figure A28: Option FMBC-03 – Peak Flood Level Impact 1% AEP Event
Figure A29: Option FMBC-04 – Peak Flood Level Impact 5% AEP Event
Figure A30: Option FMBC-04 – Peak Flood Level Impact 1% AEP Event
Figure A31: Option FMBC-05 – Peak Flood Level Impact 5% AEP Event
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Figure A33: Option FMBC-06 – Peak Flood Level Impact 5% AEP Event
Figure A34: Option FMBC-06 – Peak Flood Level Impact 1% AEP Event
Figure A35: Option FMBC-07 – Peak Flood Level Impact 1% AEP Event

FIGURE A1
STUDY AREA
BOREE CREEK



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FIGURE A2
LAND USE ZONINGS
BOREE CREEK

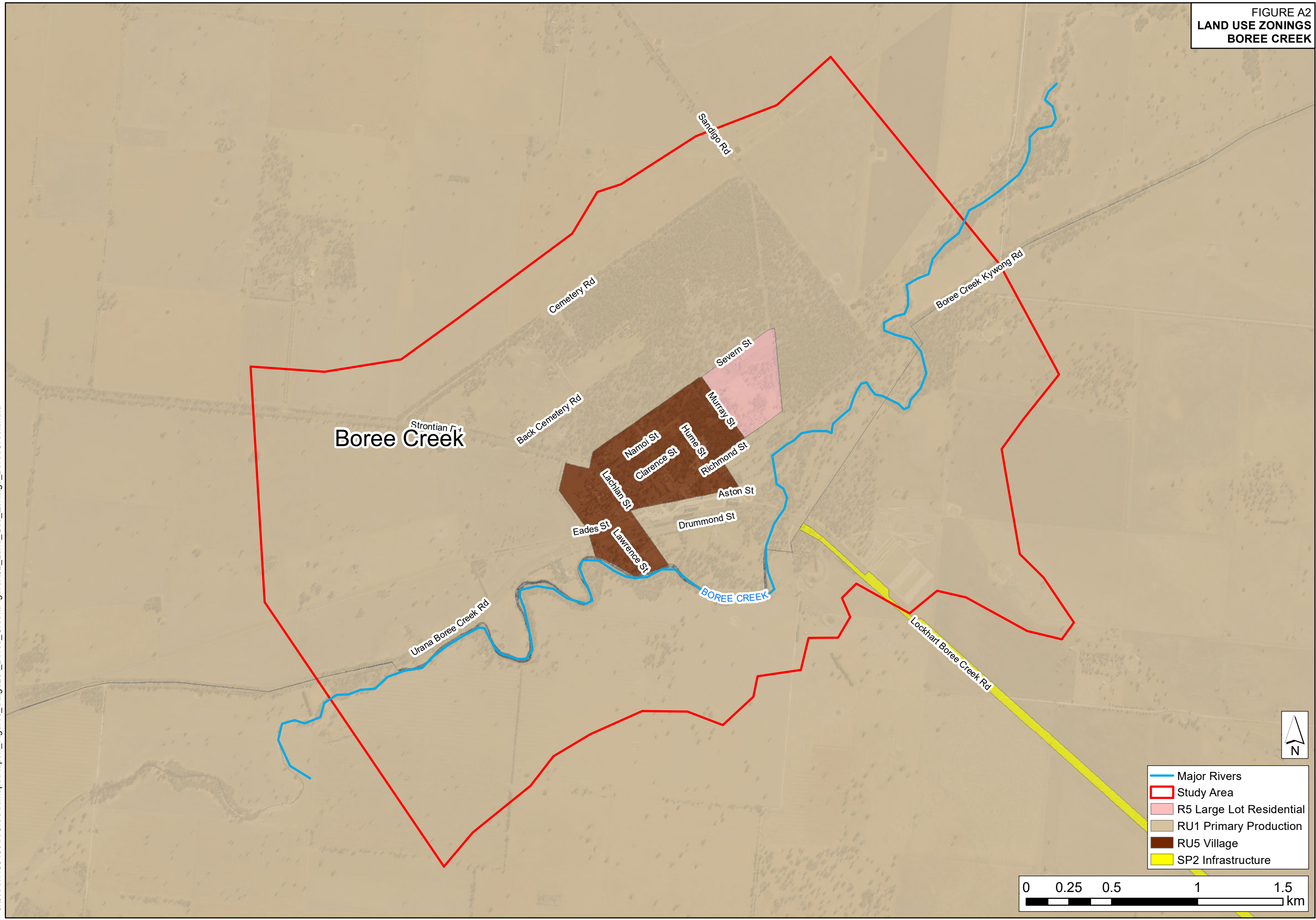


FIGURE A3
SITE INSPECTION PHOTOGRAPHS
BOREE CREEK

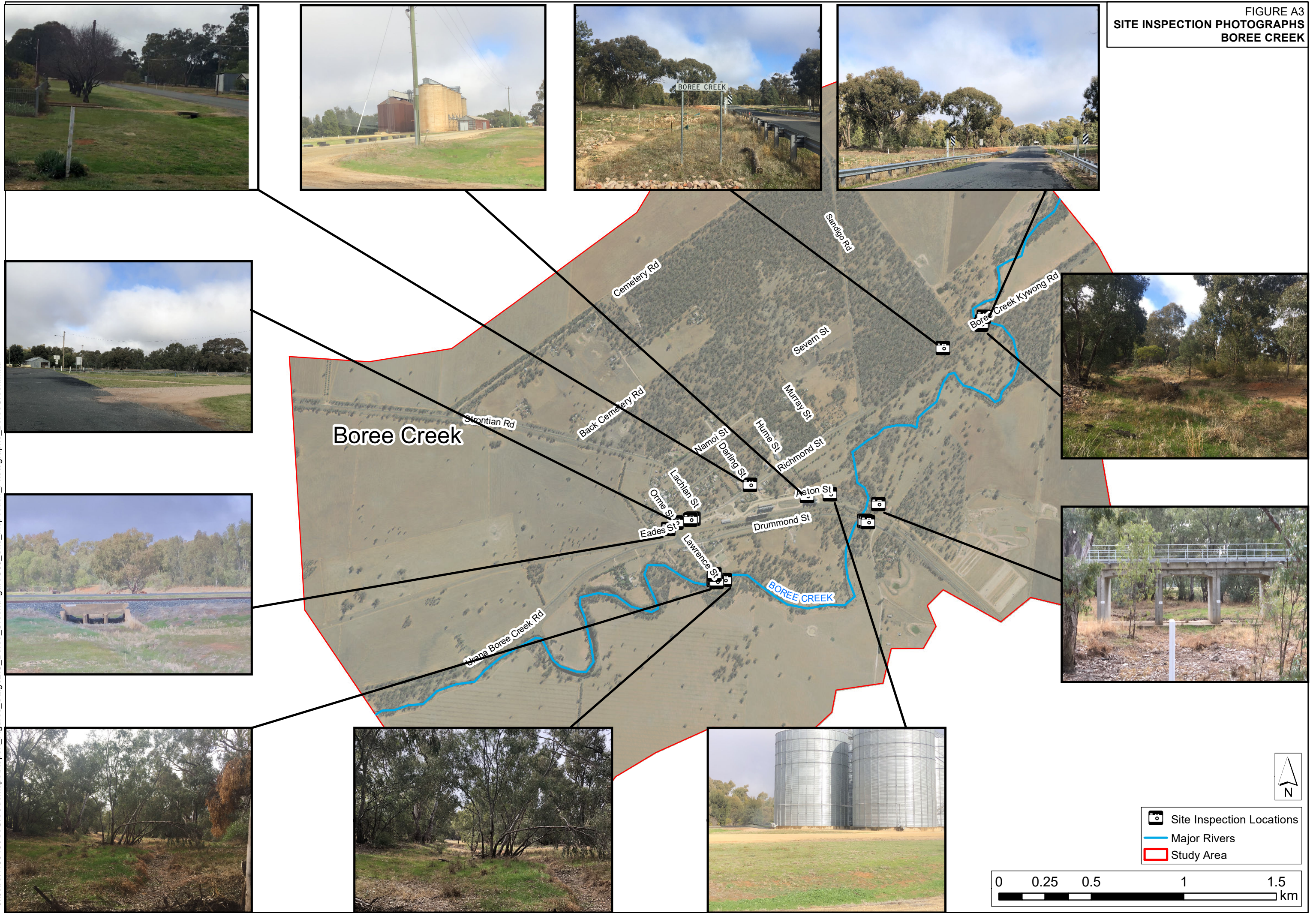


FIGURE A4
TOPOGRAPHIC DATA
BOREE CREEK

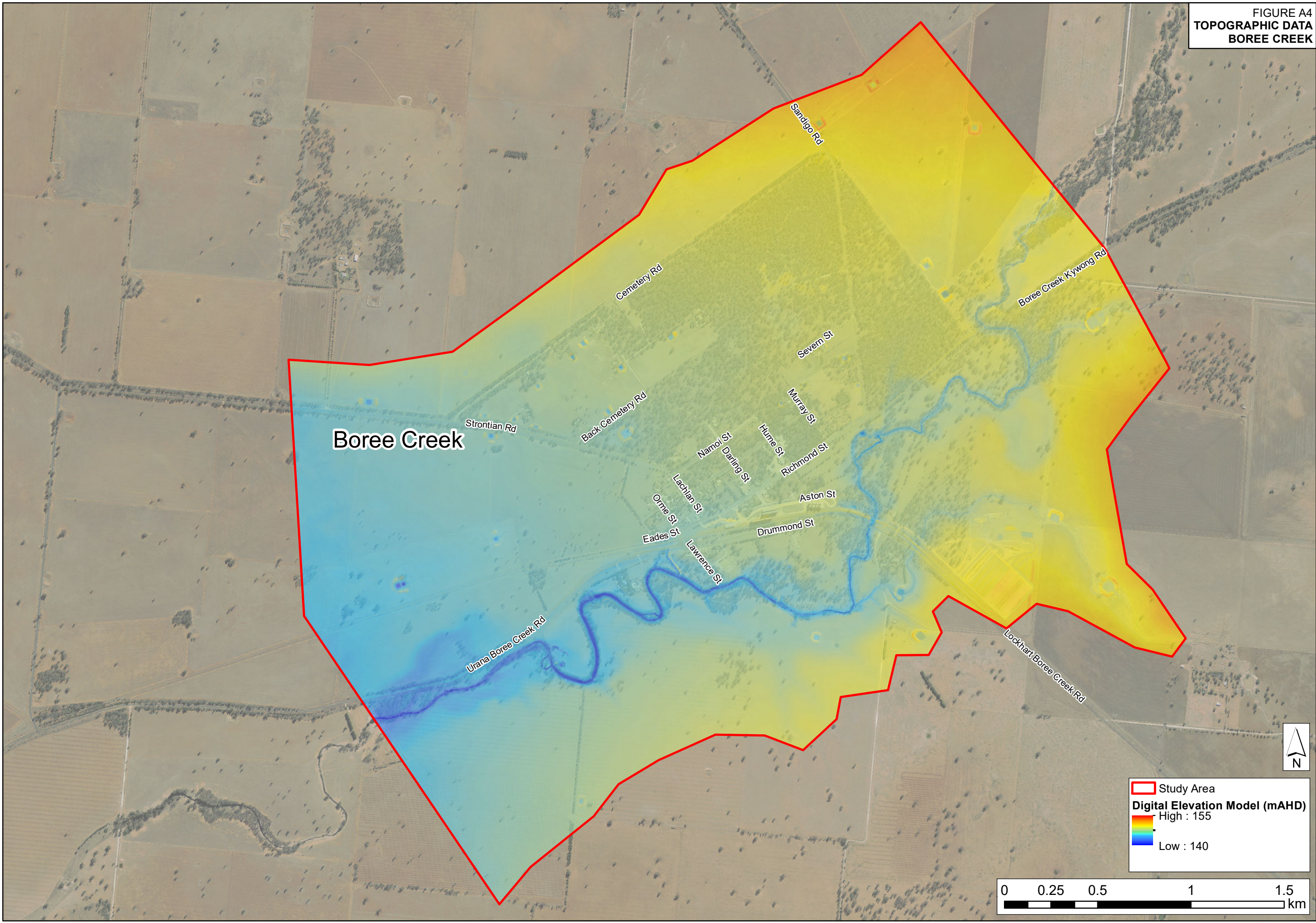


FIGURE A5
HYDROLOGIC AND HYDRAULIC MODEL DOMAINS
BOREE CREEK

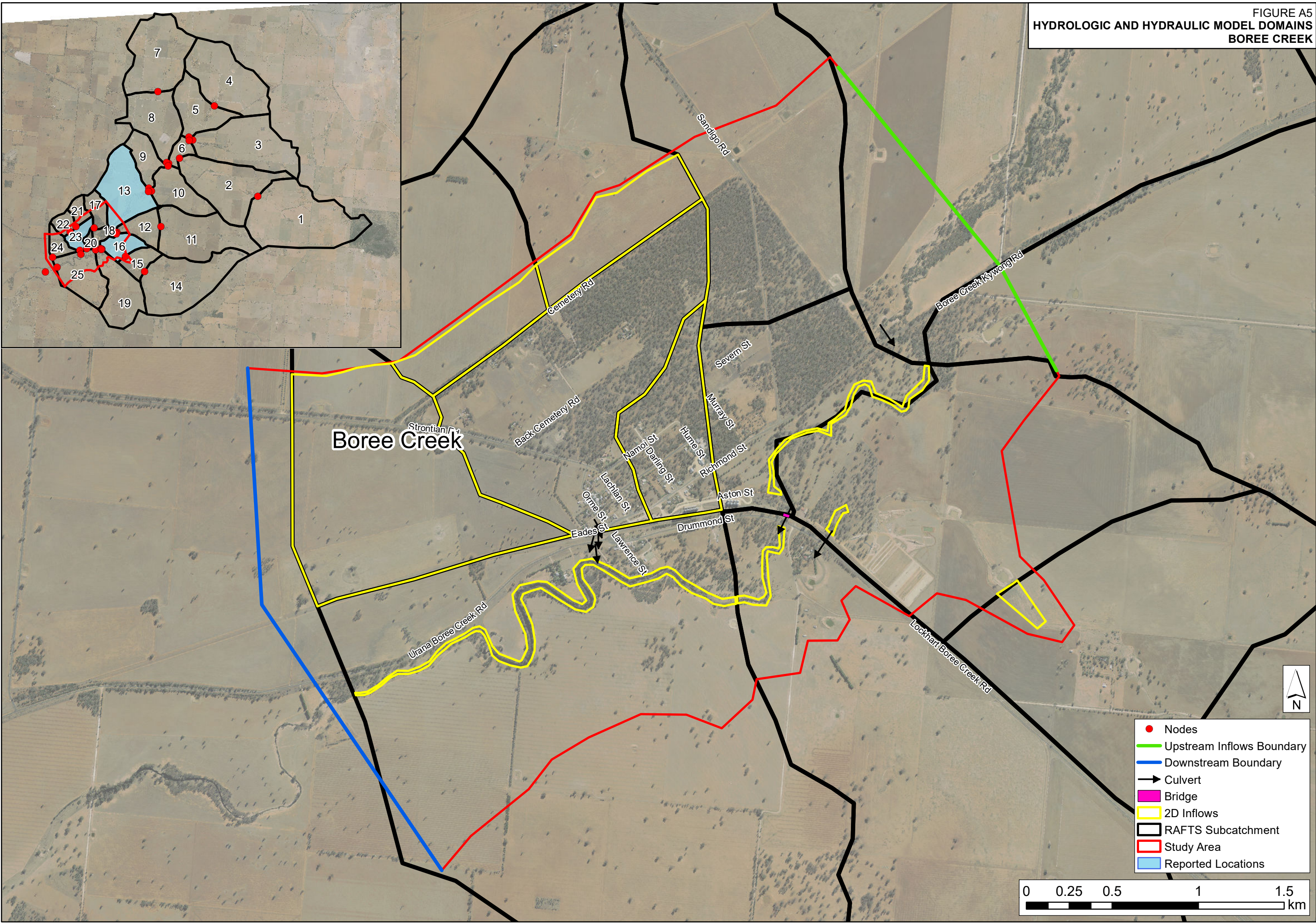
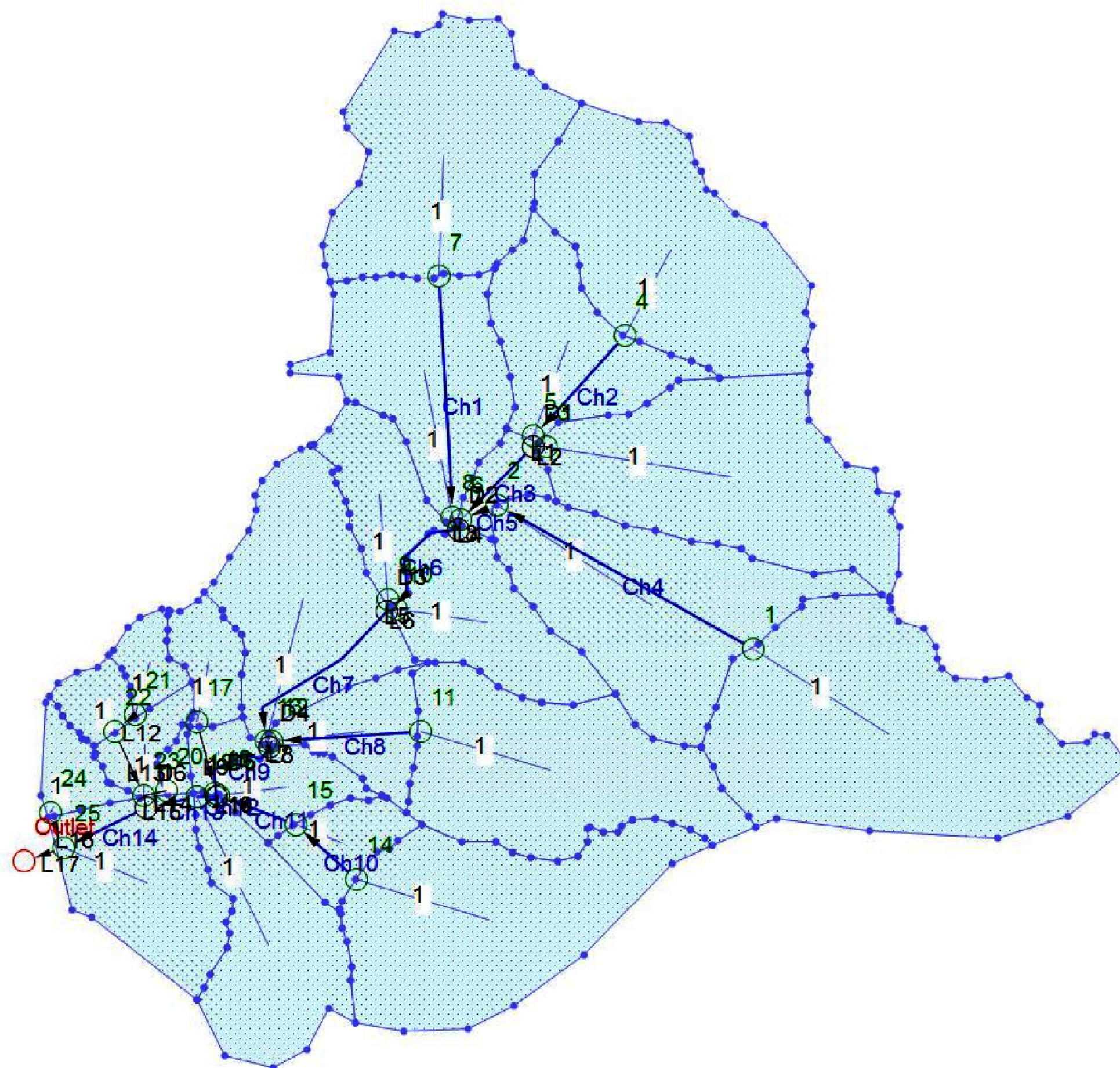


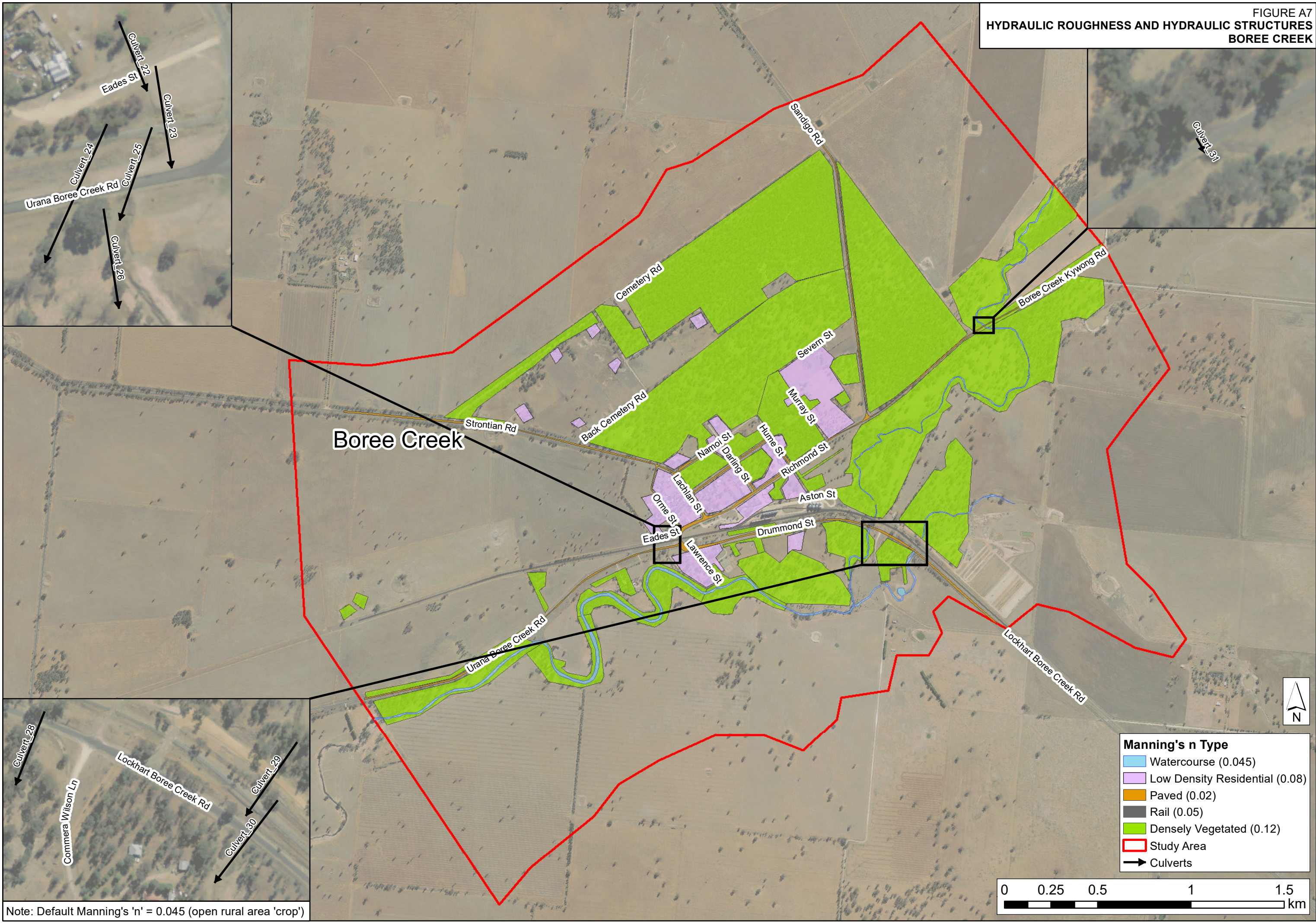
FIGURE A6
XP-RAFTS MODEL SET UP
BOREE CREEK



0

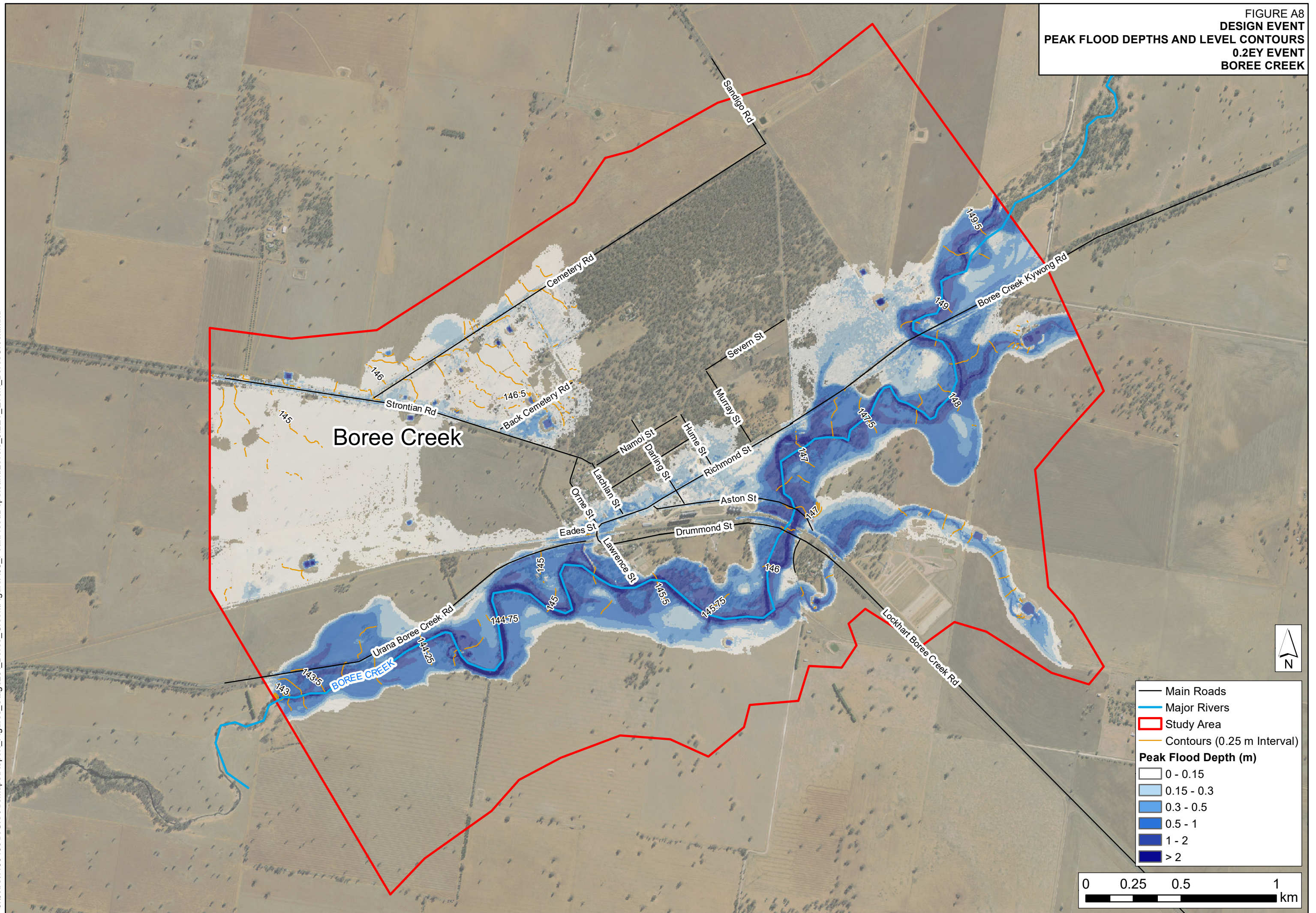
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FIGURE A7
HYDRAULIC ROUGHNESS AND HYDRAULIC STRUCTURES
BOREE CREEK



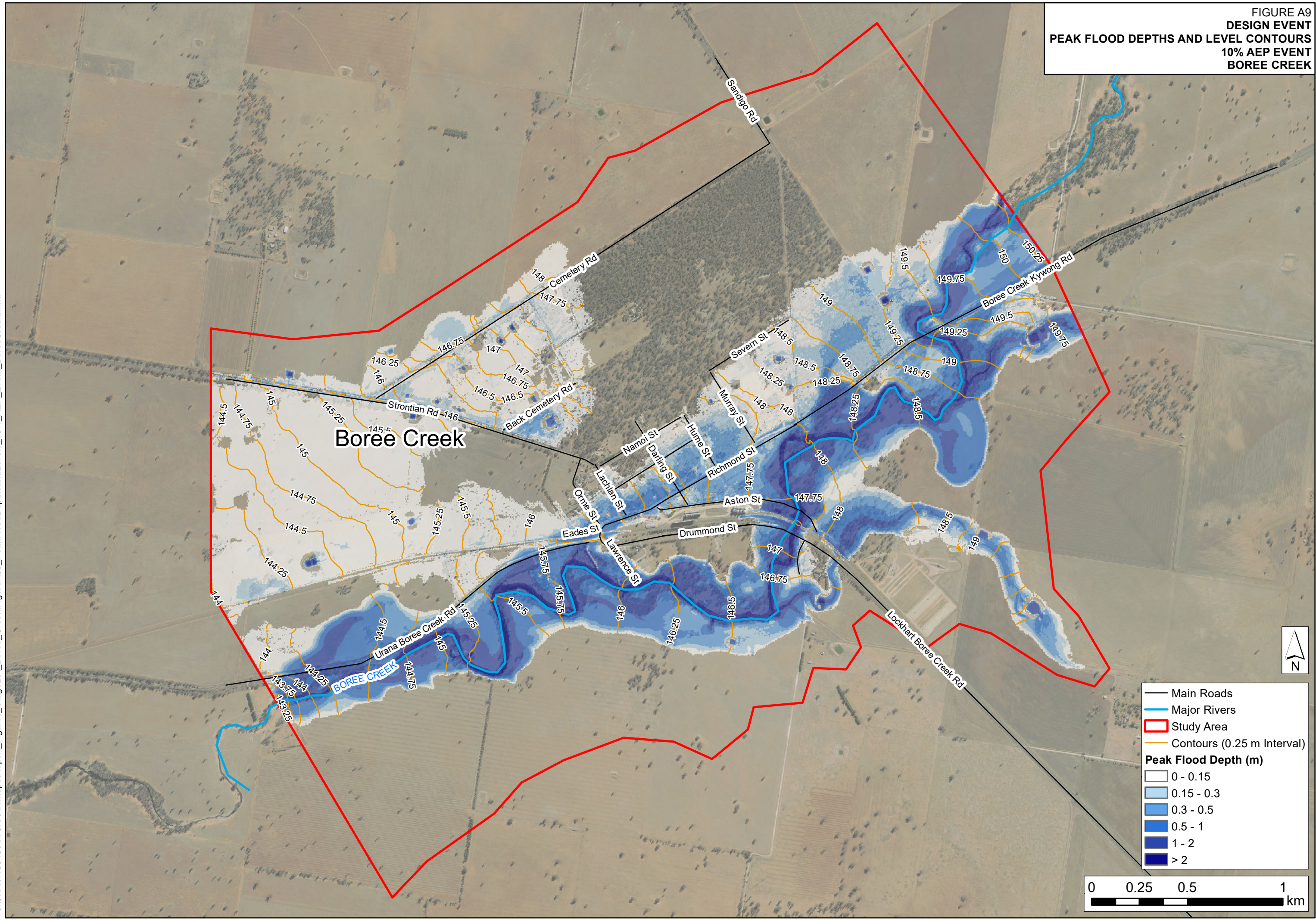
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FIGURE A8
DESIGN EVENT
PEAK FLOOD DEPTHS AND LEVEL CONTOURS
0.2EY EVENT
BOREE CREEK



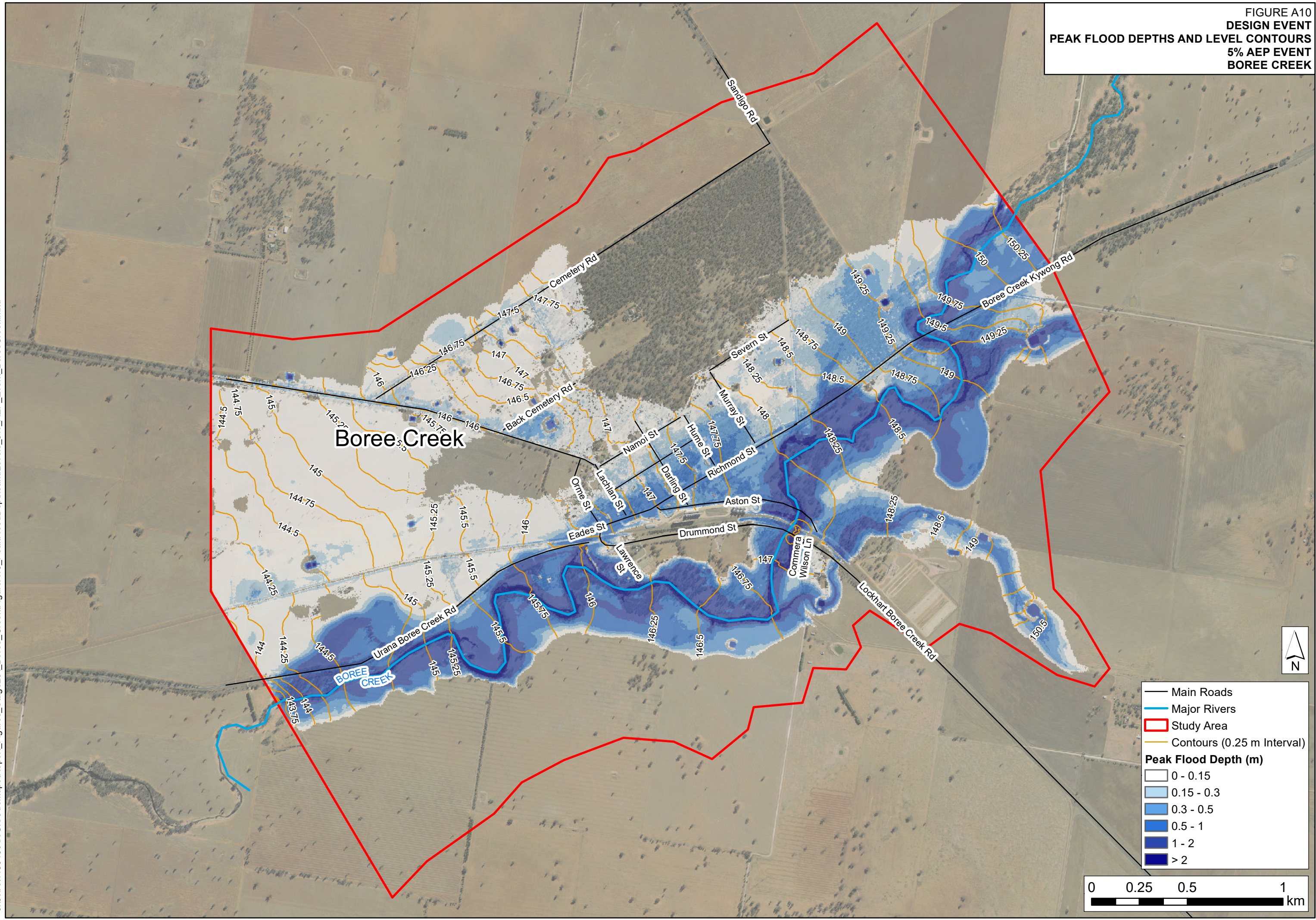
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FIGURE A9
DESIGN EVENT
PEAK FLOOD DEPTHS AND LEVEL CONTOURS
10% AEP EVENT
BOREE CREEK



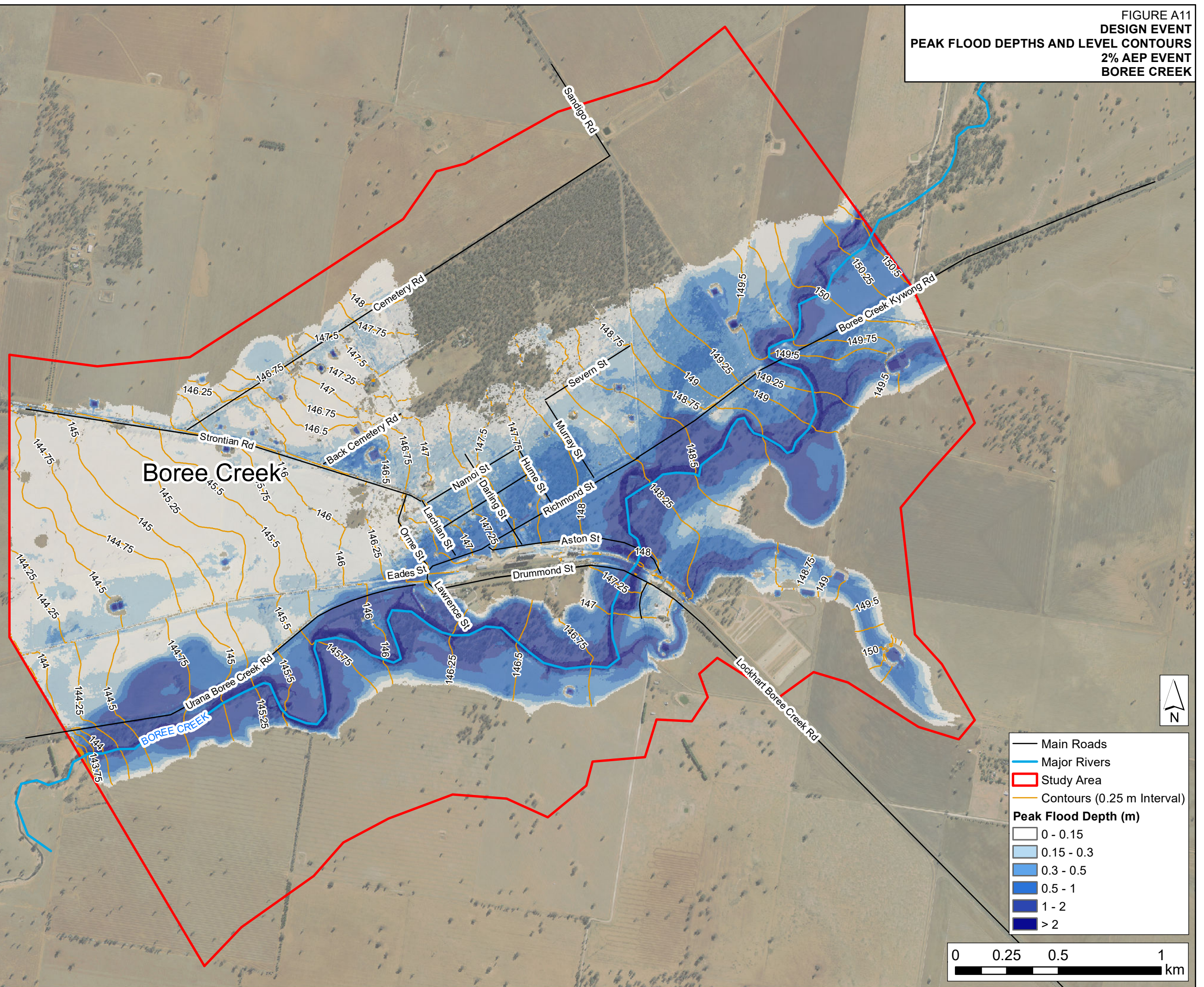
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FIGURE A10
DESIGN EVENT
PEAK FLOOD DEPTHS AND LEVEL CONTOURS
5% AEP EVENT
BOREE CREEK



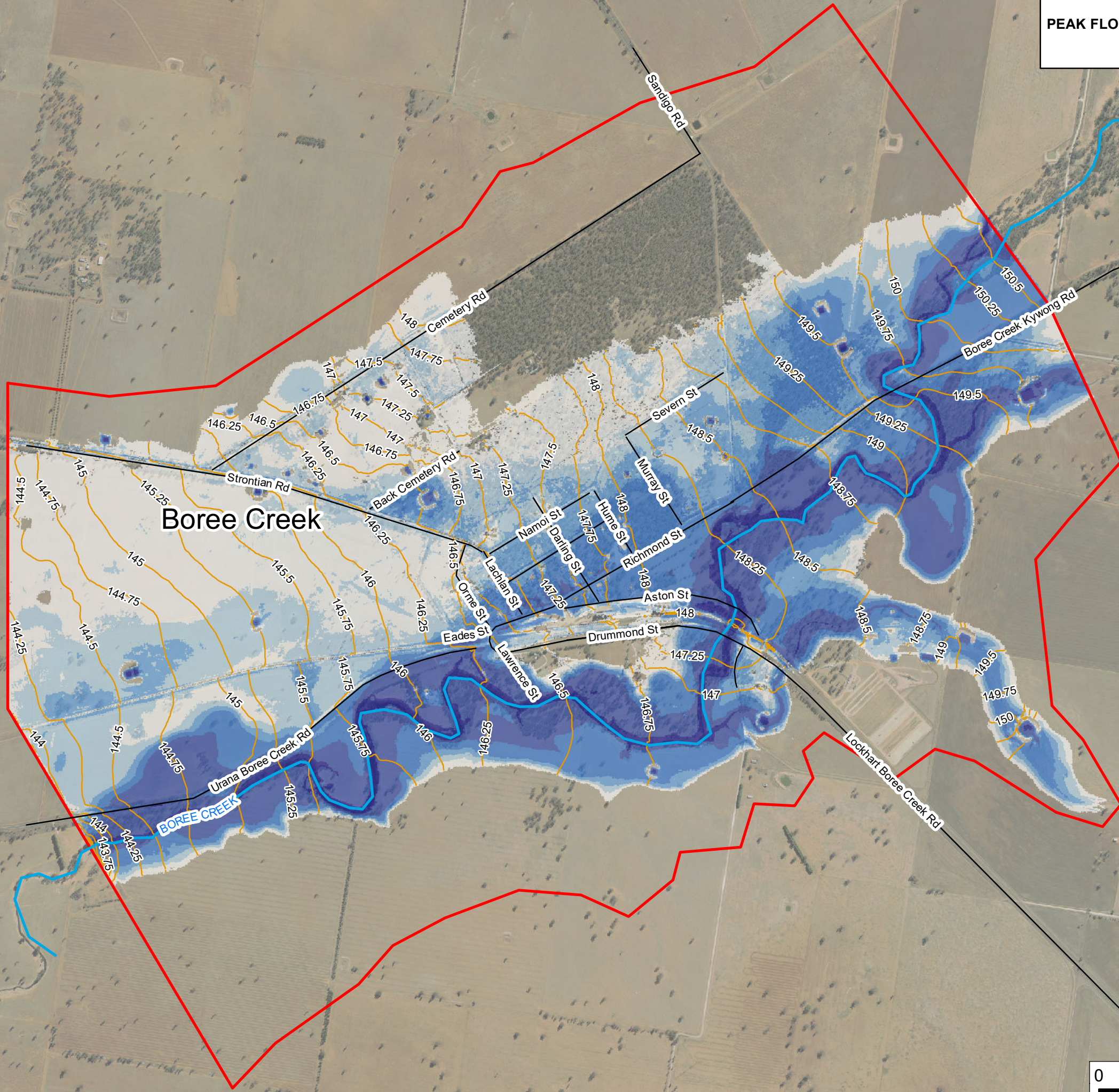
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FIGURE A11
DESIGN EVENT
PEAK FLOOD DEPTHS AND LEVEL CONTOURS
2% AEP EVENT
BOREE CREEK



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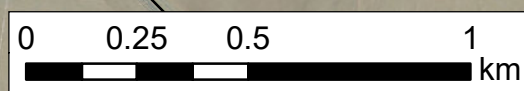
FIGURE A12
DESIGN EVENT
PEAK FLOOD DEPTHS AND LEVEL CONTOURS
1% AEP EVENT
BOREE CREEK



— Main Roads
— Major Rivers
▭ Study Area
— Contours (0.25 m Interval)

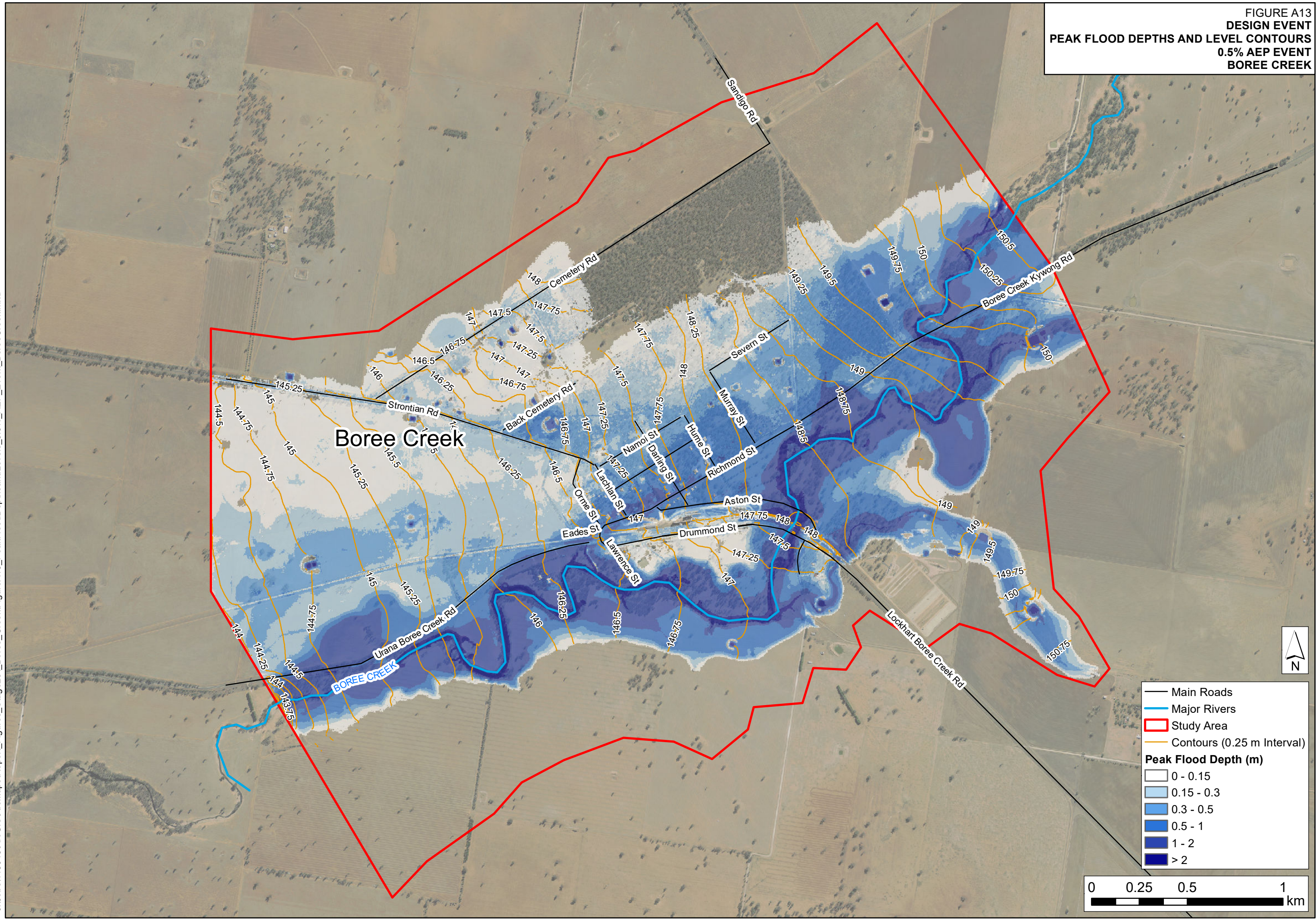
Peak Flood Depth (m)

0 - 0.15
0.15 - 0.3
0.3 - 0.5
0.5 - 1
1 - 2
> 2



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FIGURE A13
DESIGN EVENT
PEAK FLOOD DEPTHS AND LEVEL CONTOURS
0.5% AEP EVENT
BOREE CREEK



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FIGURE A14
DESIGN EVENT
PEAK FLOOD DEPTHS AND LEVEL CONTOURS
0.2% AEP EVENT
BOREE CREEK

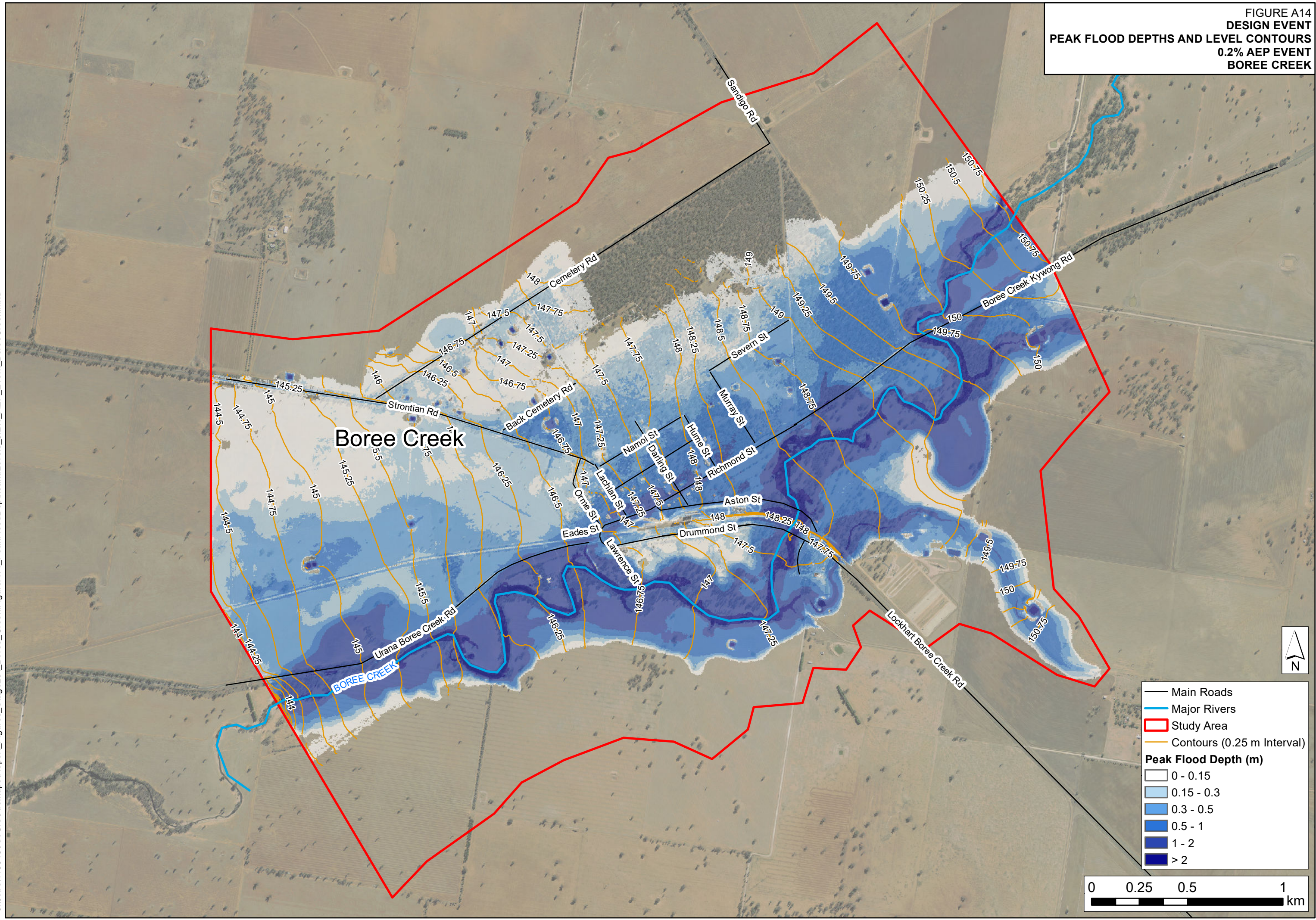
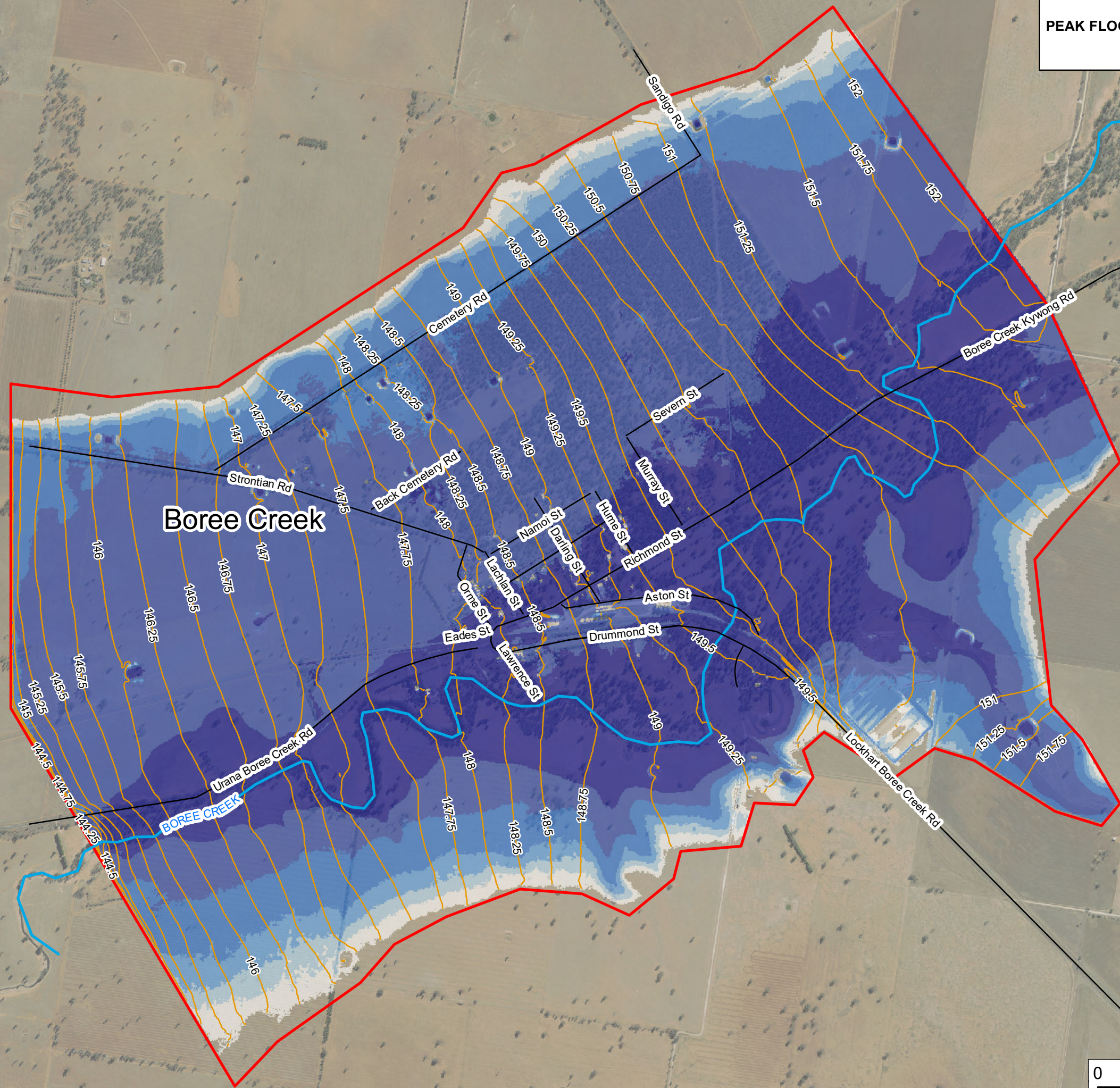


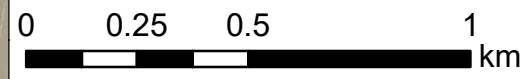
FIGURE A15
DESIGN EVENT
PEAK FLOOD DEPTHS AND LEVEL CONTOURS
PMF EVENT
BOREE CREEK



— Main Roads
— Major Rivers
— Study Area
— Contours (0.25 m Interval)

Peak Flood Depth (m)

0 - 0.15
0.15 - 0.3
0.3 - 0.5
0.5 - 1
1 - 2
> 2



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FIGURE A16
DESIGN EVENT
IMPACT ASSESSMENT BETWEEN PEAK
FLOOD LEVEL AND THE FLOOD STUDY
1% AEP EVENT
BOREE CREEK

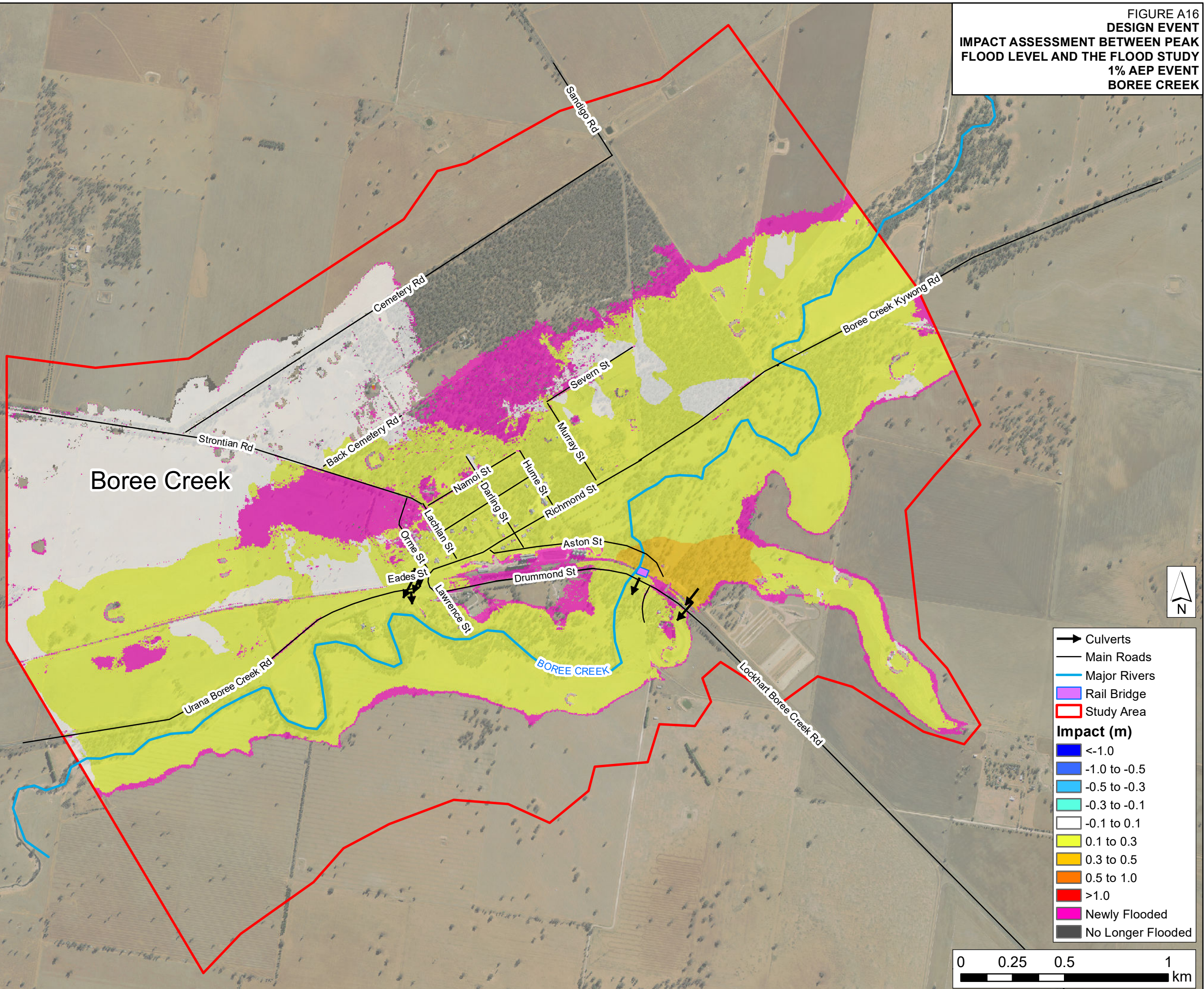


FIGURE A17
DESIGN EVENT
HYDRAULIC HAZARD
5% AEP EVENT
BOREE CREEK

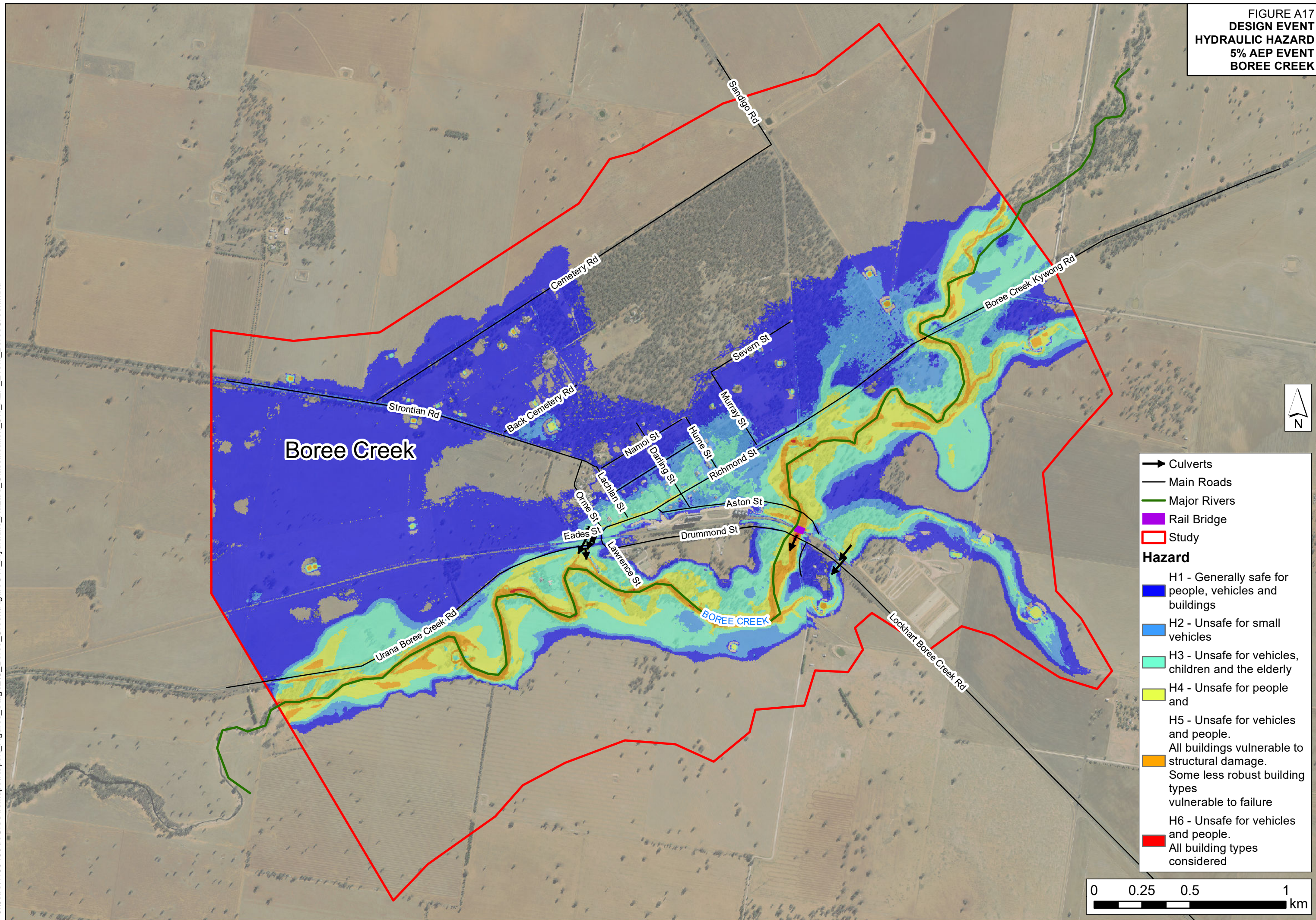
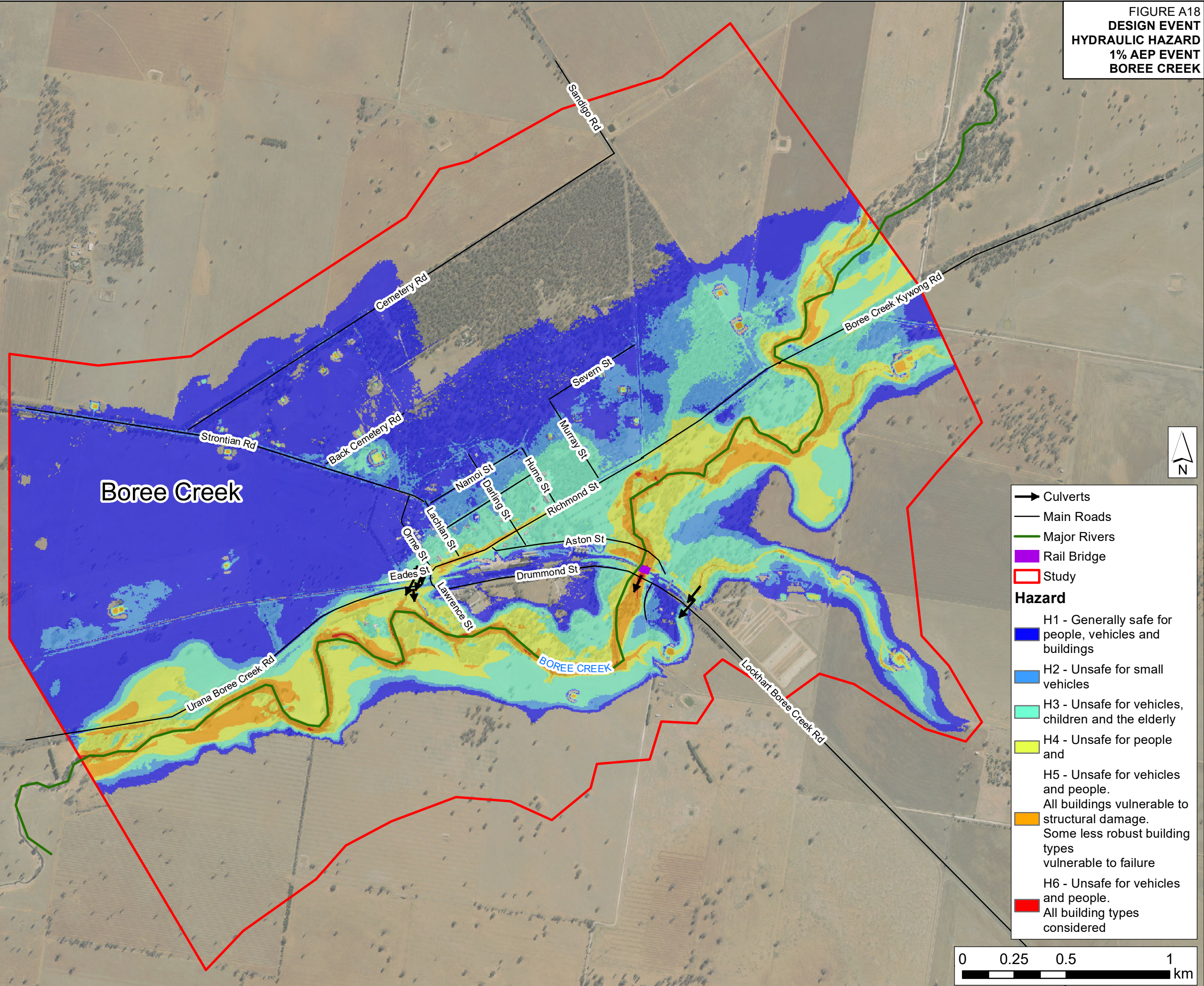


FIGURE A18
DESIGN EVENT
HYDRAULIC HAZARD
1% AEP EVENT
BOREE CREEK



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FIGURE A19
DESIGN EVENT
HYDRAULIC HAZARD
PMF EVENT
BOREE CREEK

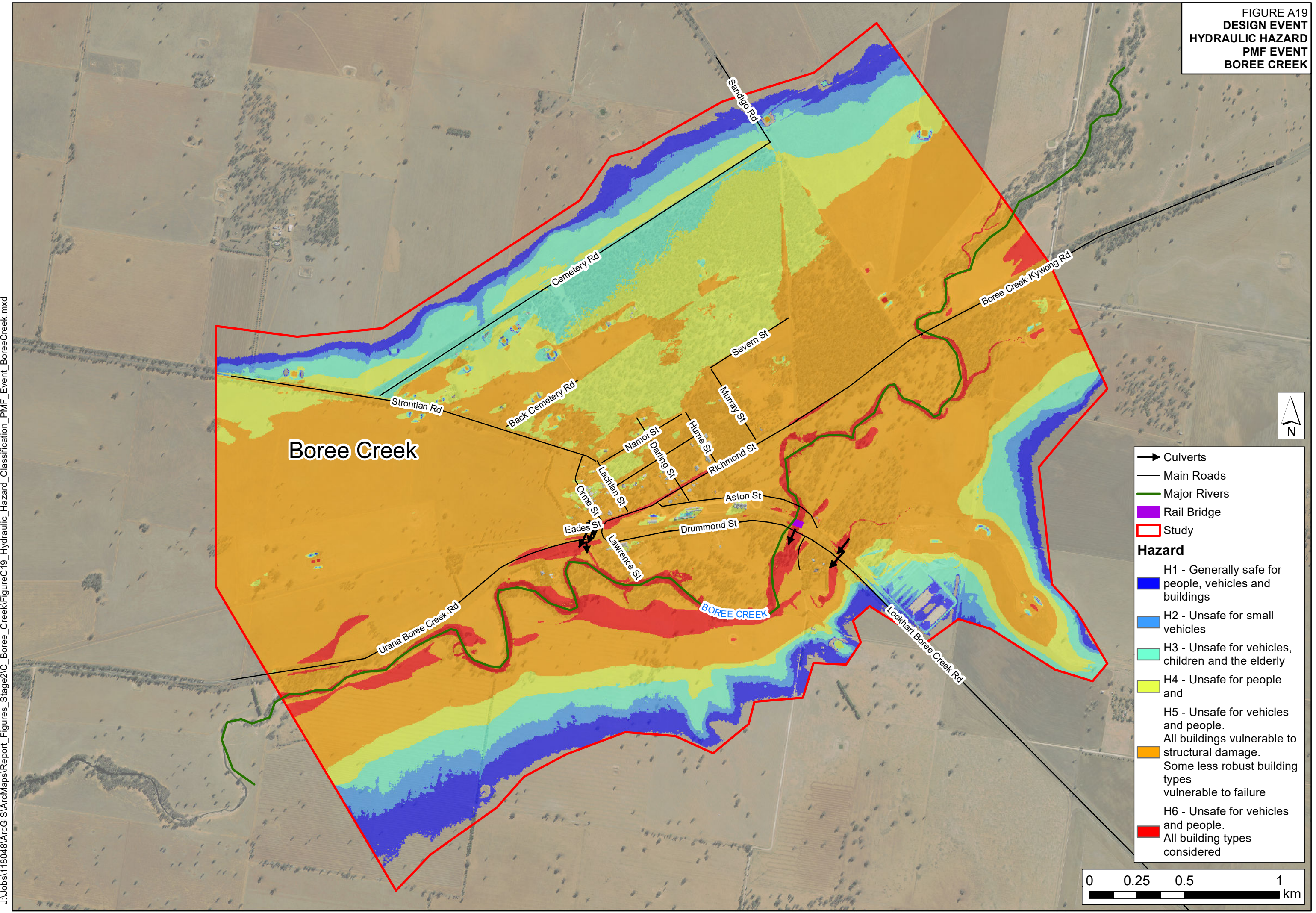


FIGURE A20
DESIGN EVENT
HYDRAULIC CATEGORISATION
5% AEP EVENT
BOREE CREEK

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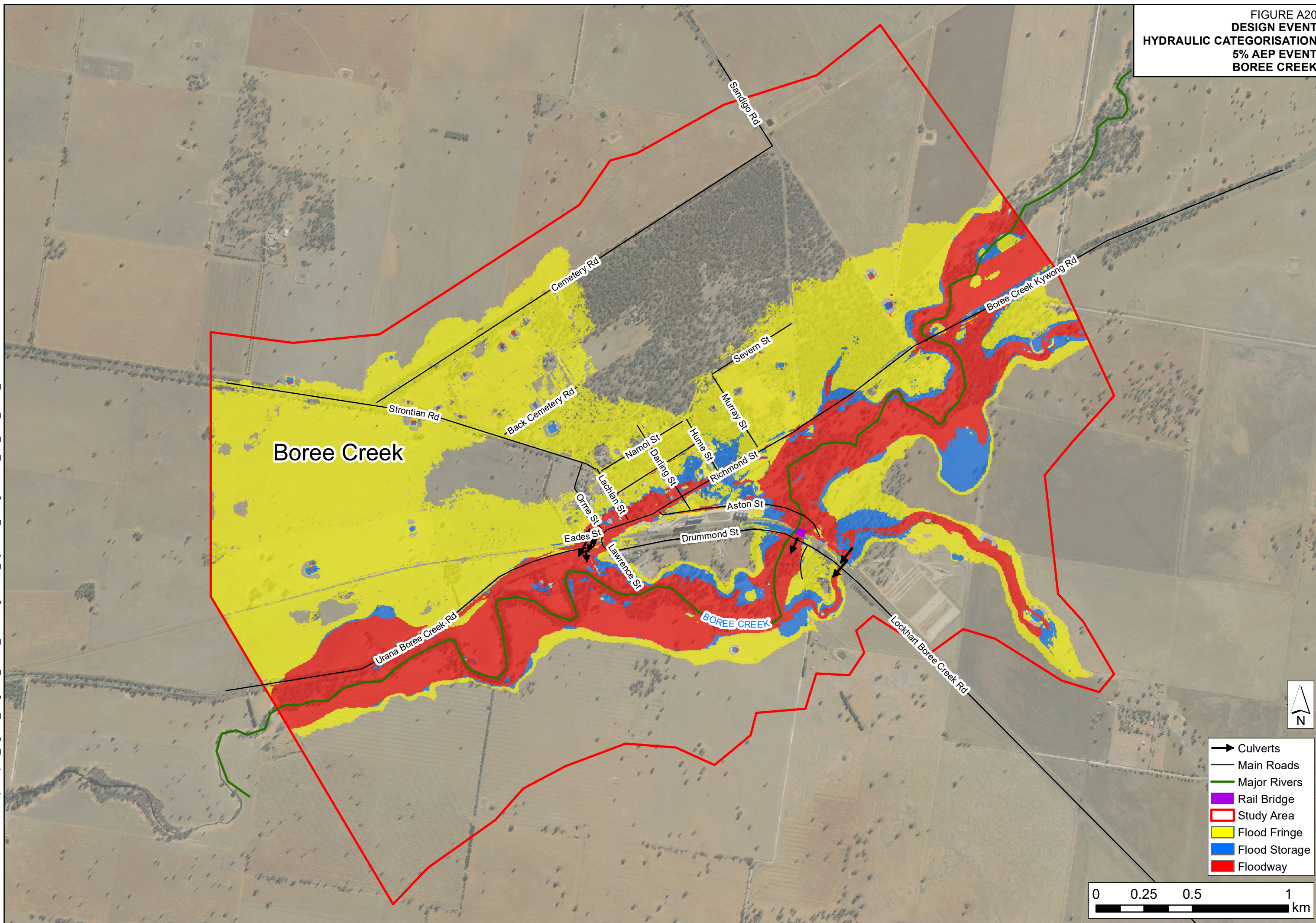


FIGURE A21
DESIGN EVENT
HYDRAULIC CATEGORISATION
1% AEP EVENT
BOREE CREEK

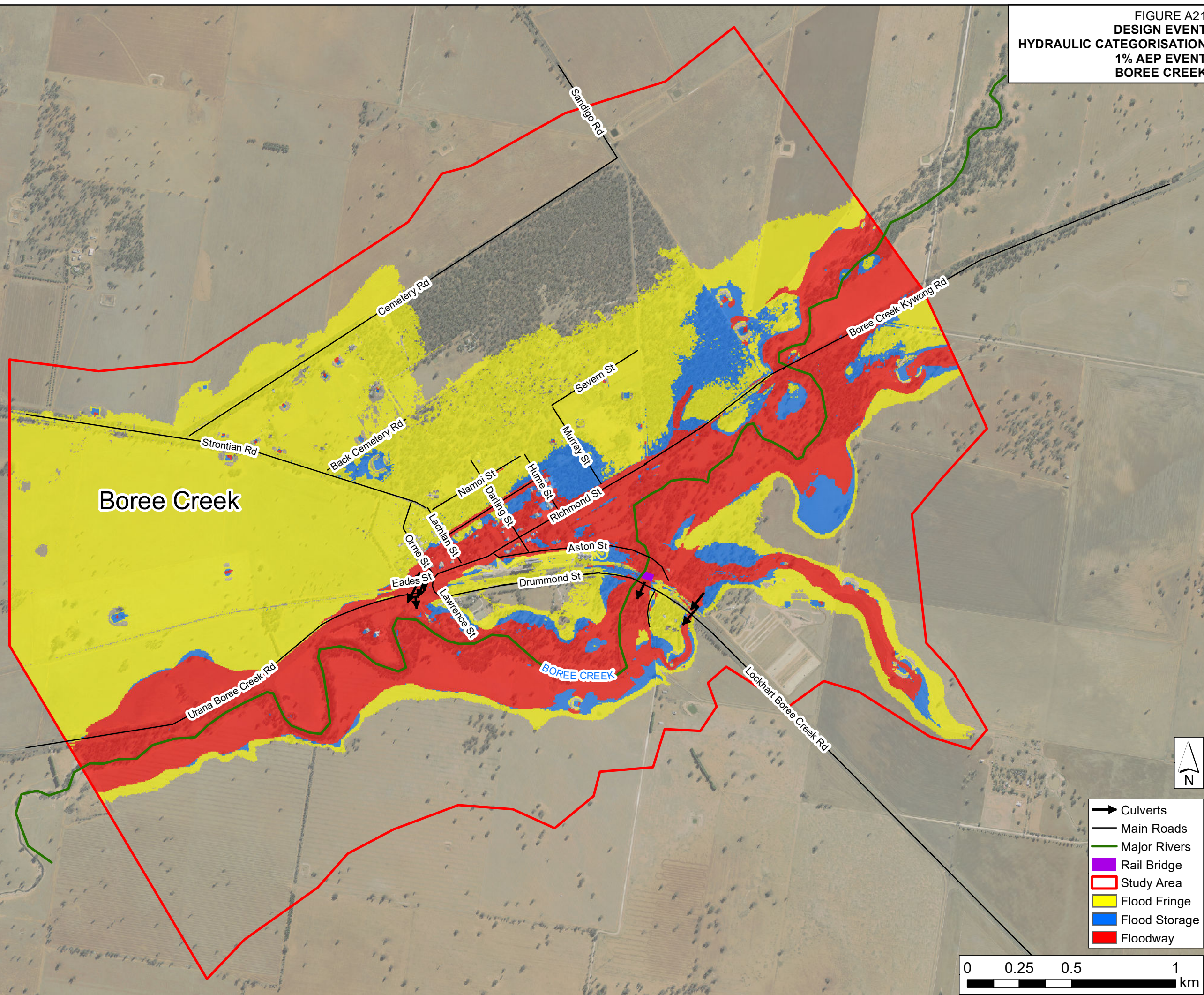
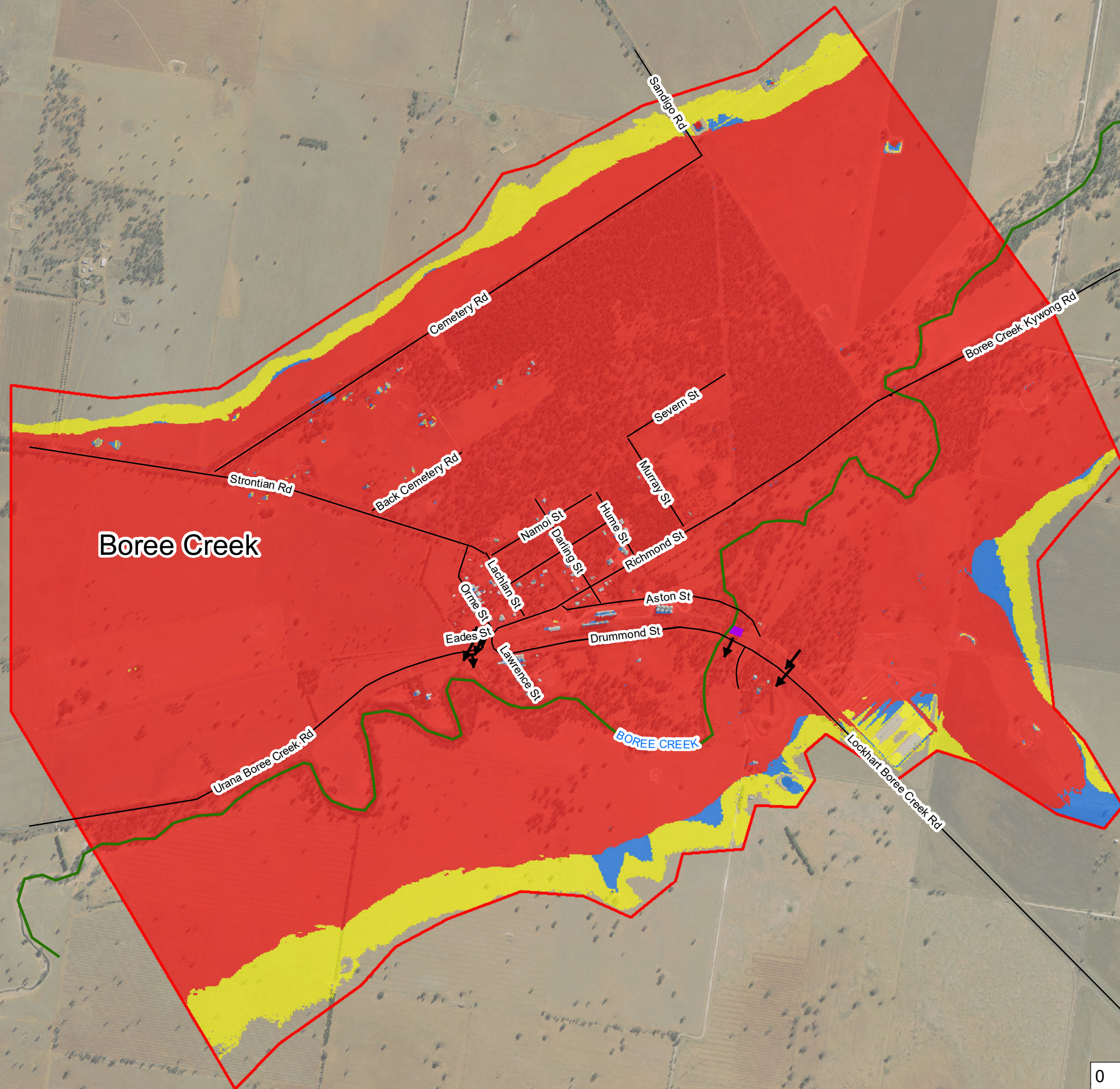


FIGURE A22
DESIGN EVENT
HYDRAULIC CATEGORISATION
PMF EVENT
BOREE CREEK

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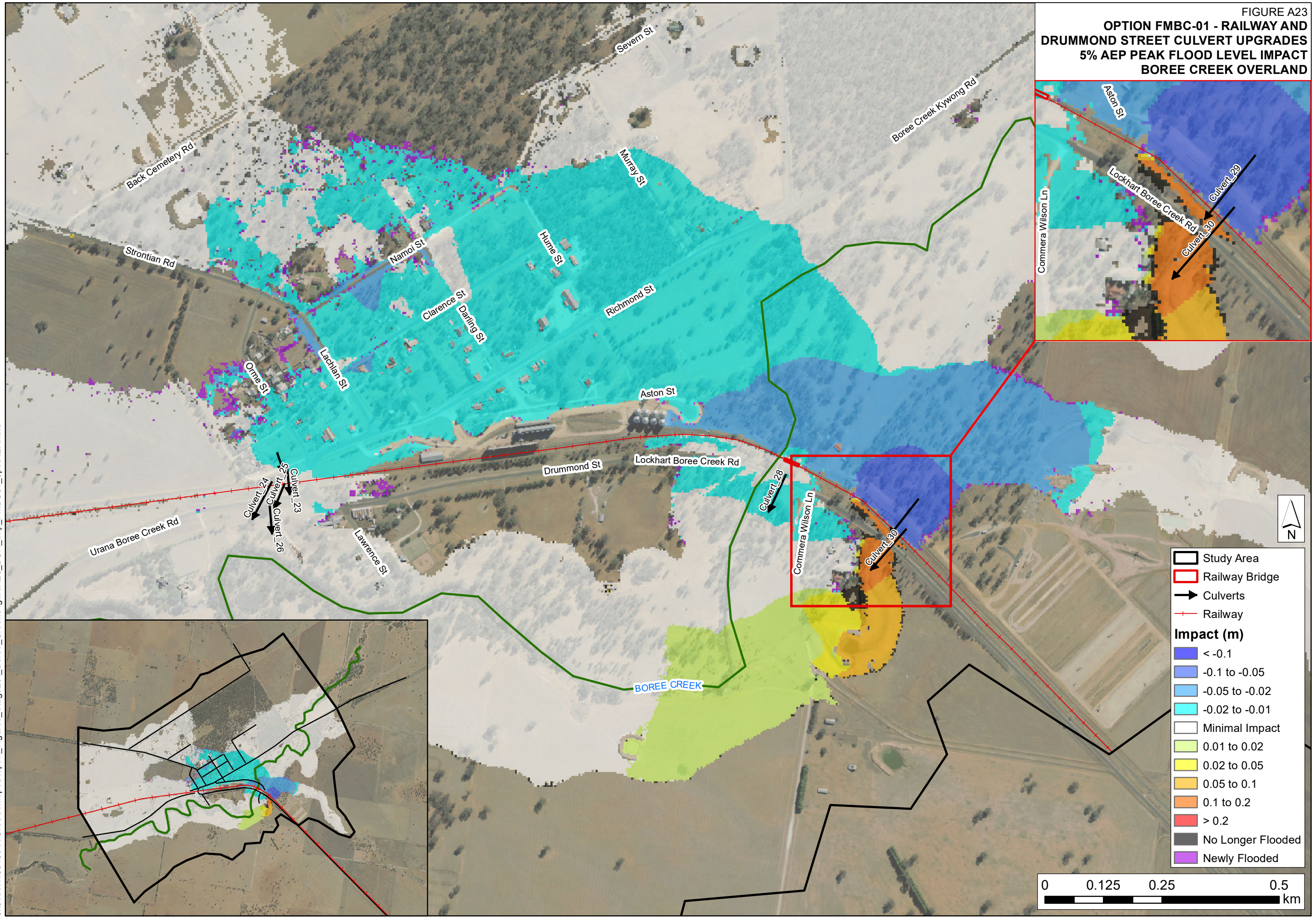


- Culverts
- Main Roads
- Major Rivers
- Rail Bridge
- Study Area
- Flood Fringe
- Flood Storage
- Floodway

0 0.25 0.5 1 km

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FIGURE A23
OPTION FMBC-01 - RAILWAY AND
DRUMMOND STREET CULVERT UPGRADES
5% AEP PEAK FLOOD LEVEL IMPACT
BOREE CREEK OVERLAND

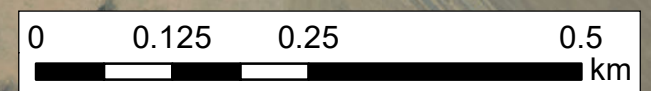


Legend

- Study Area
- Railway Bridge
- Culverts
- Railway

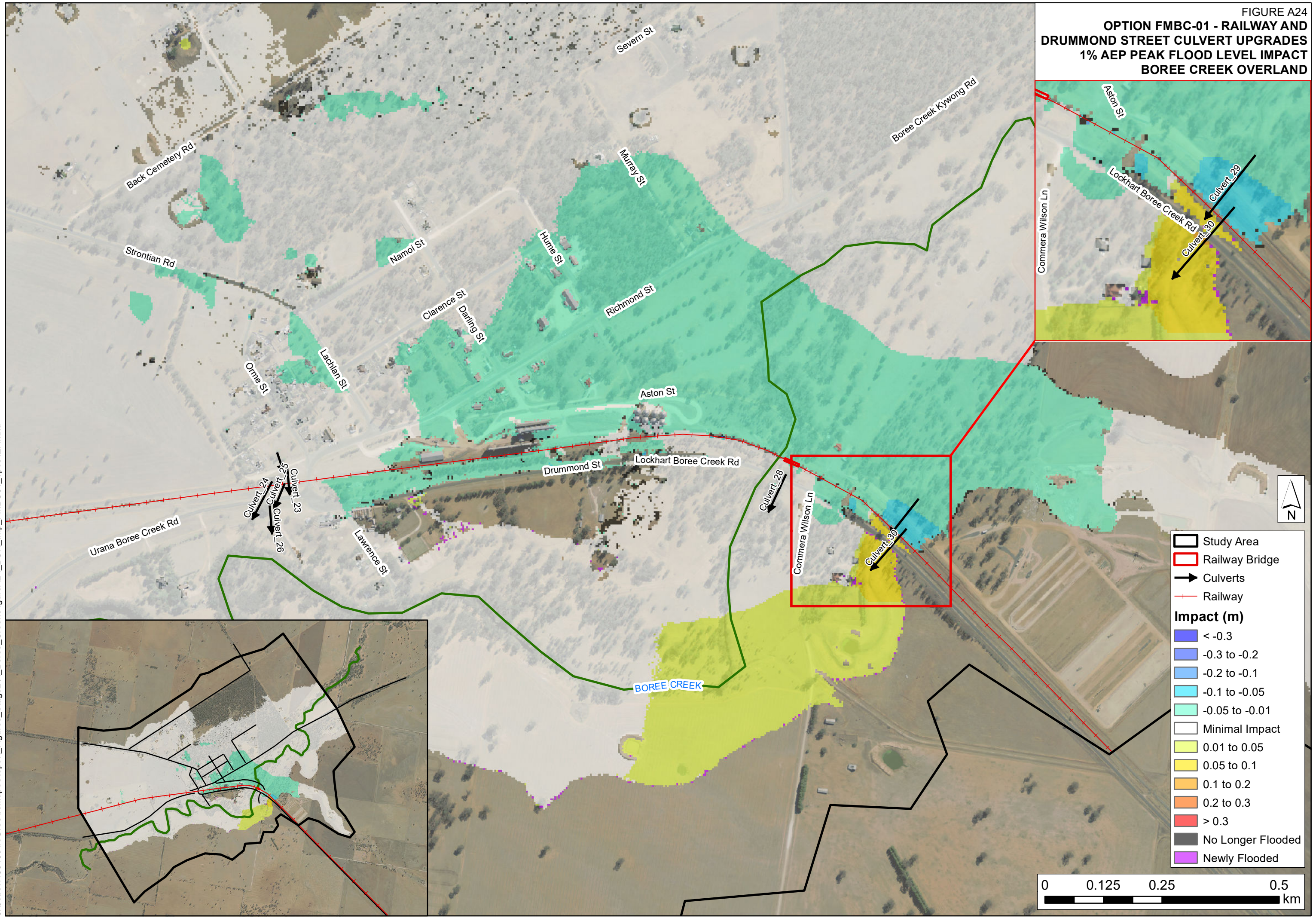
Impact (m)

- < -0.1
- 0.1 to -0.05
- 0.05 to -0.02
- 0.02 to -0.01
- Minimal Impact
- 0.01 to 0.02
- 0.02 to 0.05
- 0.05 to 0.1
- 0.1 to 0.2
- > 0.2
- No Longer Flooded
- Newly Flooded



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FIGURE A24
OPTION FMBC-01 - RAILWAY AND
DRUMMOND STREET CULVERT UPGRADES
1% AEP PEAK FLOOD LEVEL IMPACT
BOREE CREEK OVERLAND



Legend

- Study Area
- Railway Bridge
- Culverts
- Railway

Impact (m)

- < -0.3
- 0.3 to -0.2
- 0.2 to -0.1
- 0.1 to -0.05
- 0.05 to -0.01
- Minimal Impact
- 0.01 to 0.05
- 0.05 to 0.1
- 0.1 to 0.2
- 0.2 to 0.3
- > 0.3
- No Longer Flooded
- Newly Flooded

FIGURE A25
OPTION FMBC-02 - BOREE CREEK
WESTERN CULVERT UPGRADES
5% AEP PEAK FLOOD LEVEL IMPACT
BOREE CREEK OVERLAND

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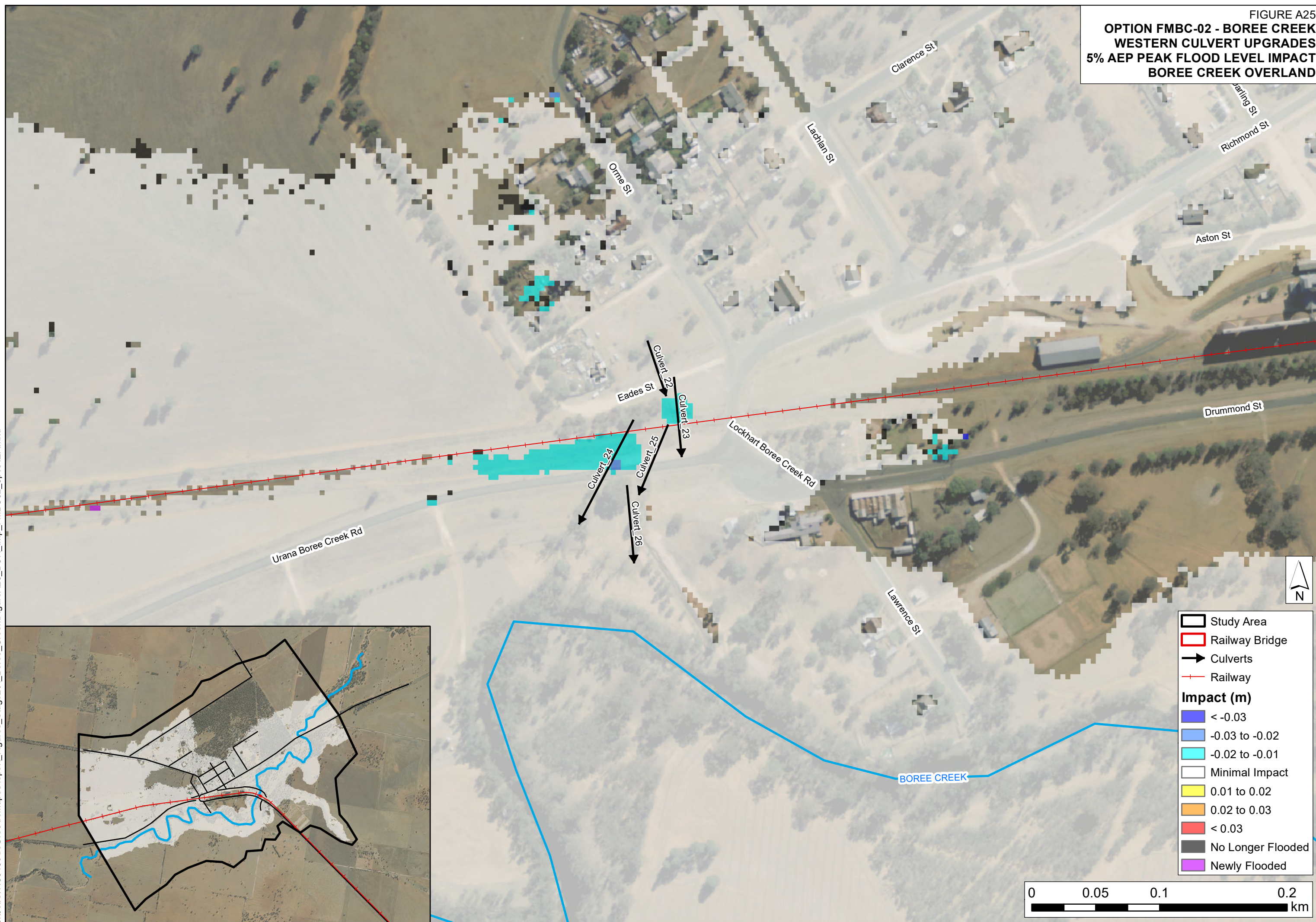
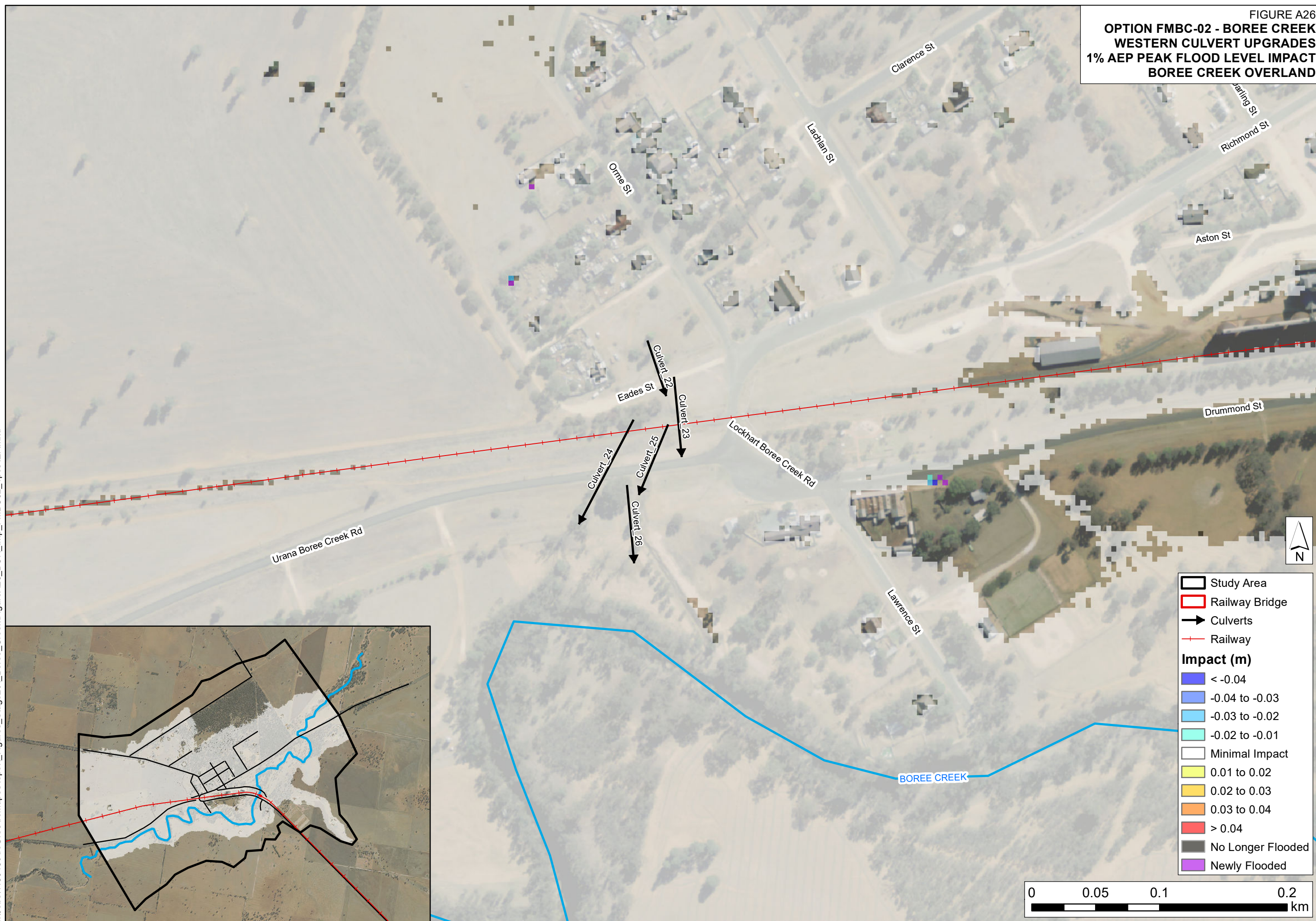
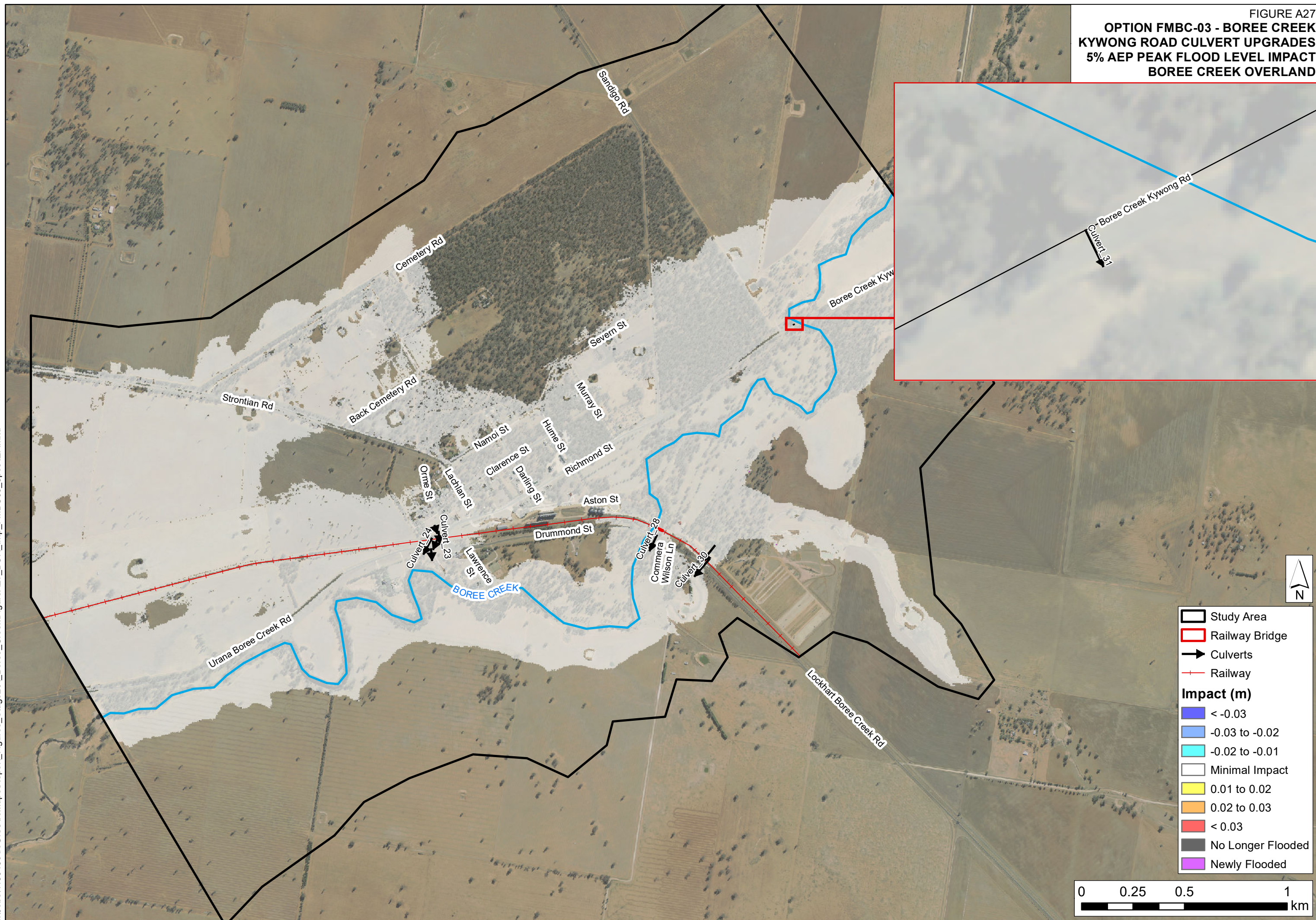


FIGURE A26
OPTION FMBC-02 - BOREE CREEK
WESTERN CULVERT UPGRADES
1% AEP PEAK FLOOD LEVEL IMPACT
BOREE CREEK OVERLAND

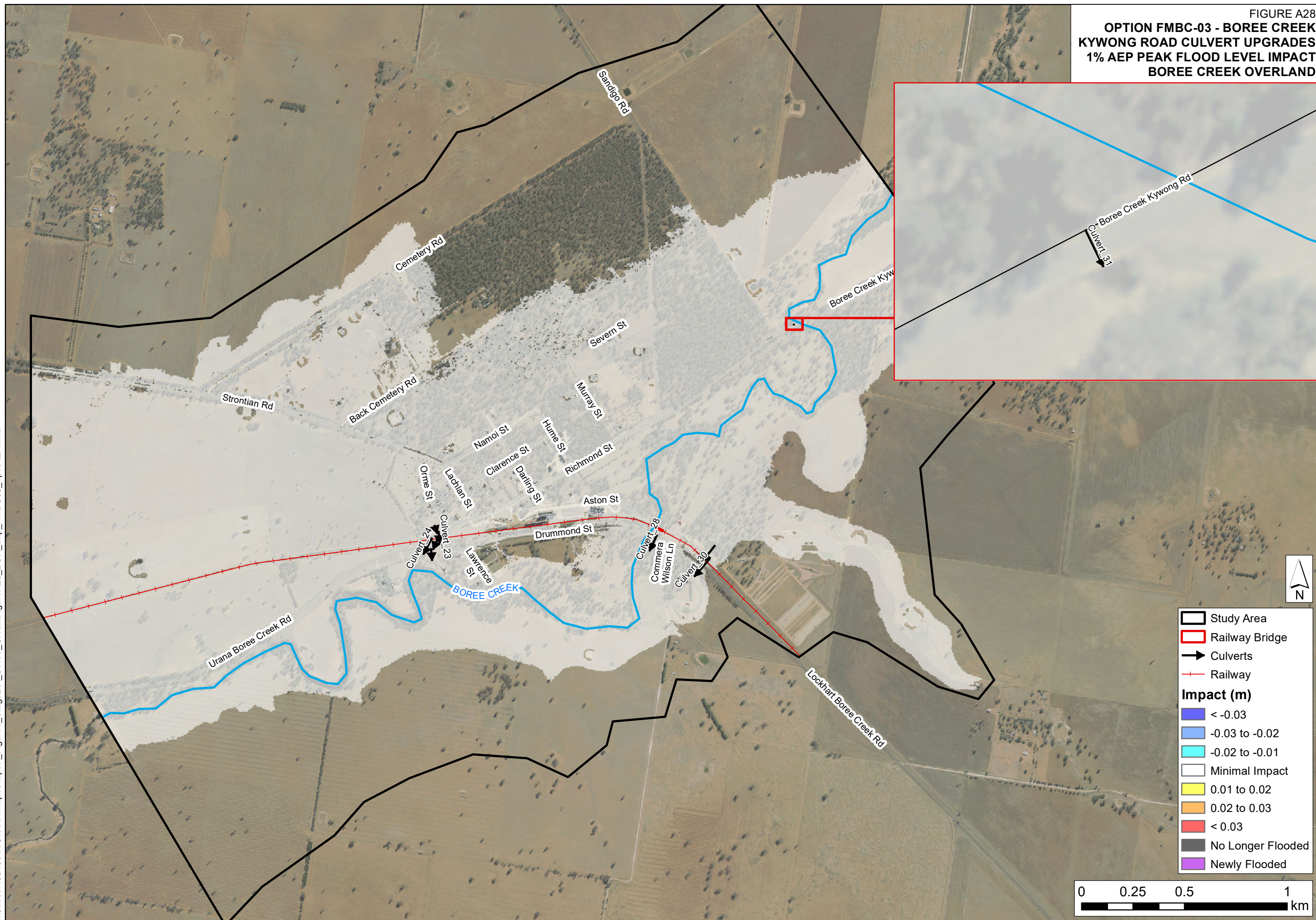
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FIGURE A29
OPTION FMBC-04 - MAJOR CHANNEL AUGMENTATION
AND RAILWAY BRIDGE EXPANSION
5% AEP PEAK FLOOD LEVEL IMPACT
BOREE CREEK OVERLAND

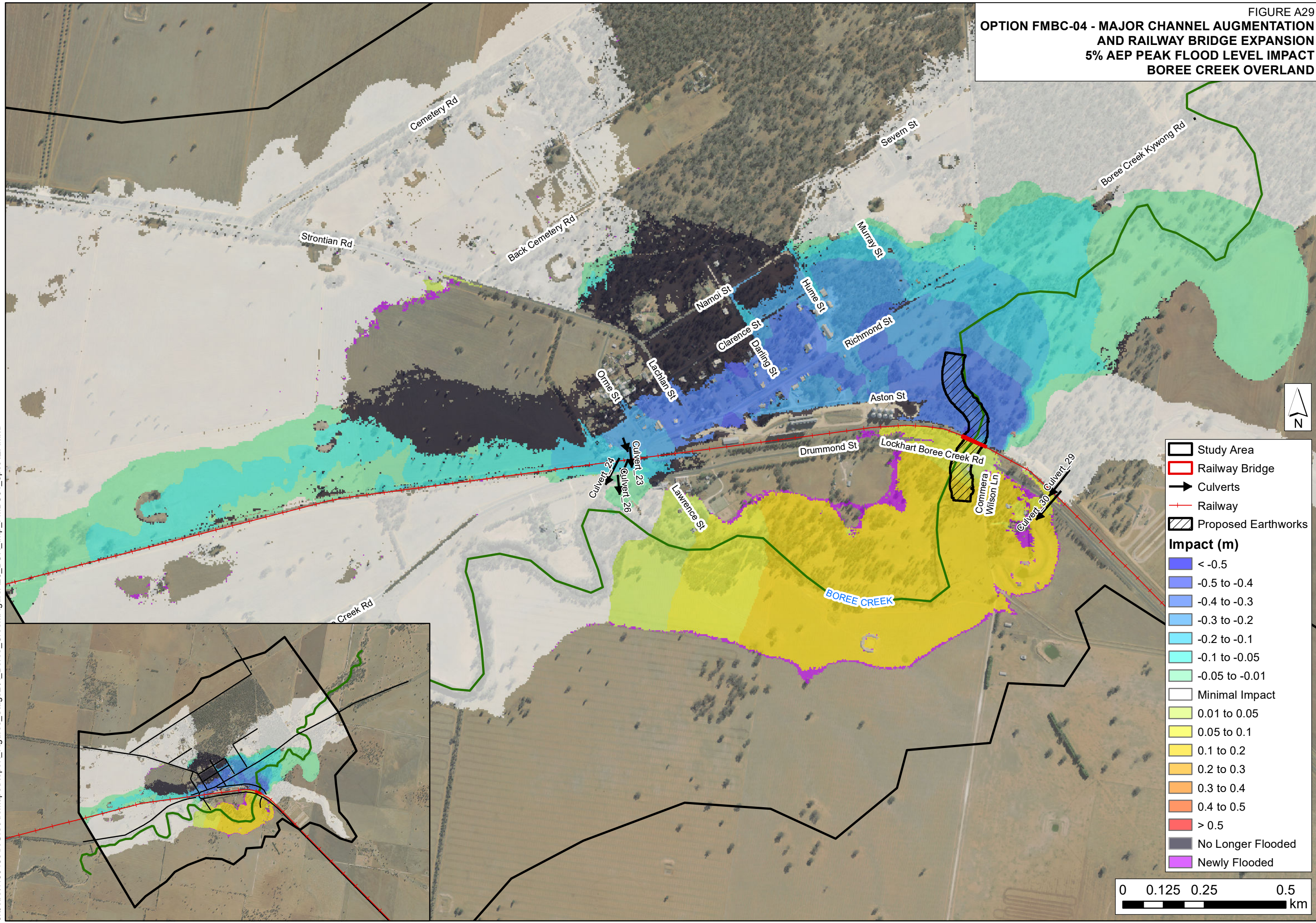
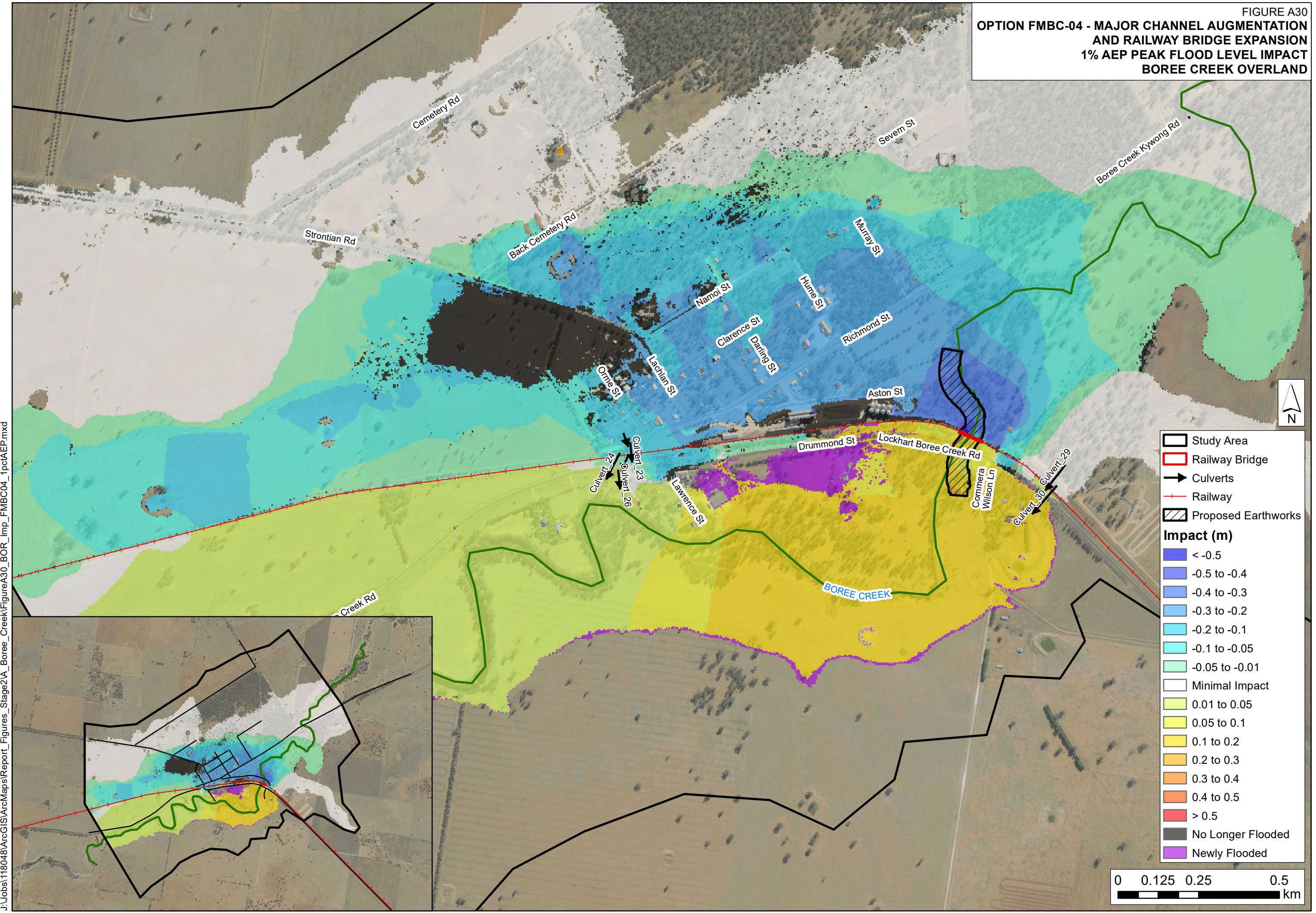


FIGURE A30
OPTION FMBC-04 - MAJOR CHANNEL AUGMENTATION
AND RAILWAY BRIDGE EXPANSION
1% AEP PEAK FLOOD LEVEL IMPACT
BOREE CREEK OVERLAND



Legend

- Study Area
- Railway Bridge
- Culverts
- Railway
- Proposed Earthworks

Impact (m)

- < -0.5
- 0.5 to -0.4
- 0.4 to -0.3
- 0.3 to -0.2
- 0.2 to -0.1
- 0.1 to -0.05
- 0.05 to -0.01
- Minimal Impact
- 0.01 to 0.05
- 0.05 to 0.1
- 0.1 to 0.2
- 0.2 to 0.3
- 0.3 to 0.4
- 0.4 to 0.5
- > 0.5
- No Longer Flooded
- Newly Flooded

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FIGURE A31
OPTION FMBC-05 - RELOCATION OF RAILWAY
TERMINUS EAST OF BOREE CREEK
5% AEP PEAK FLOOD LEVEL IMPACT
BOREE CREEK OVERLAND

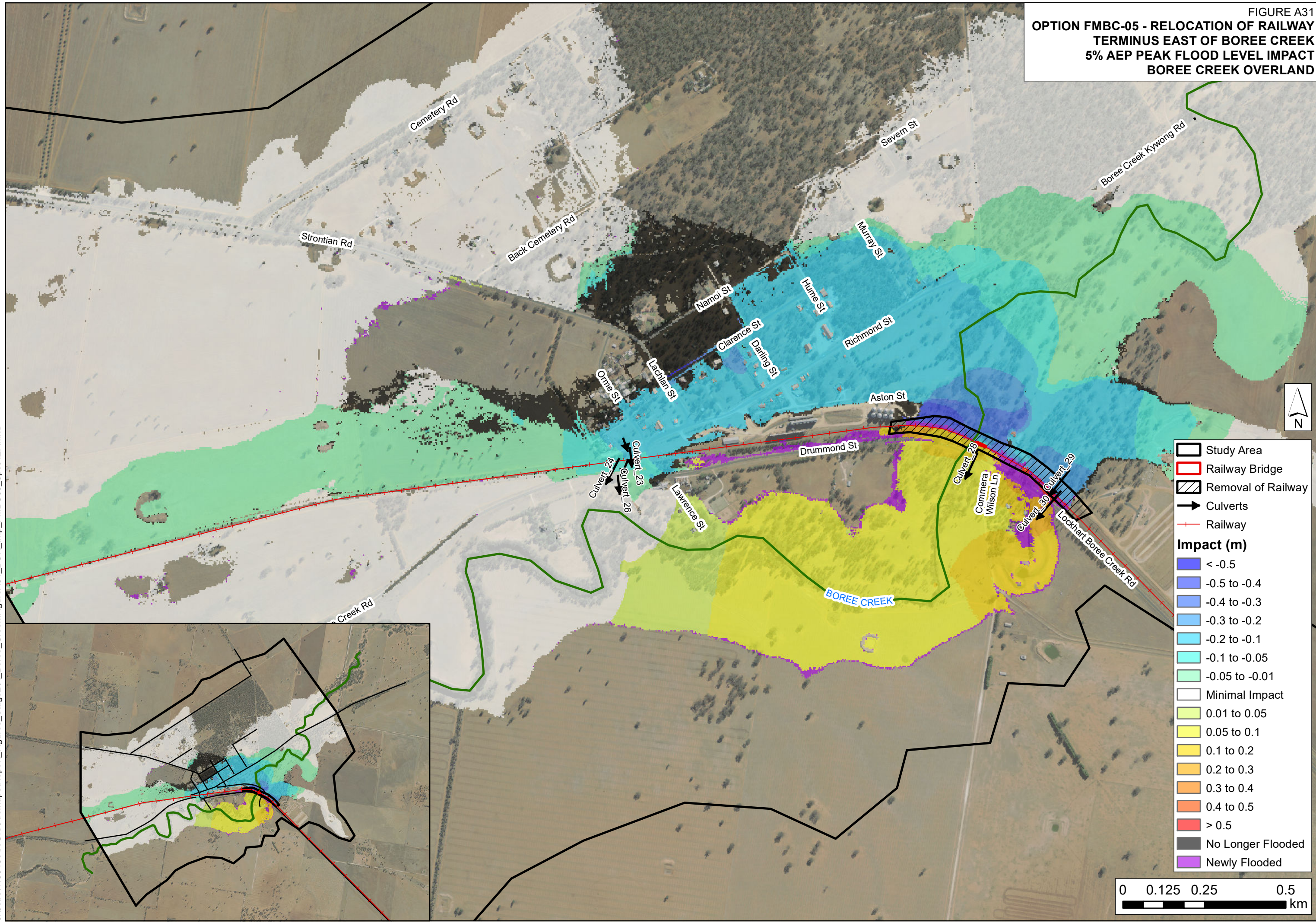
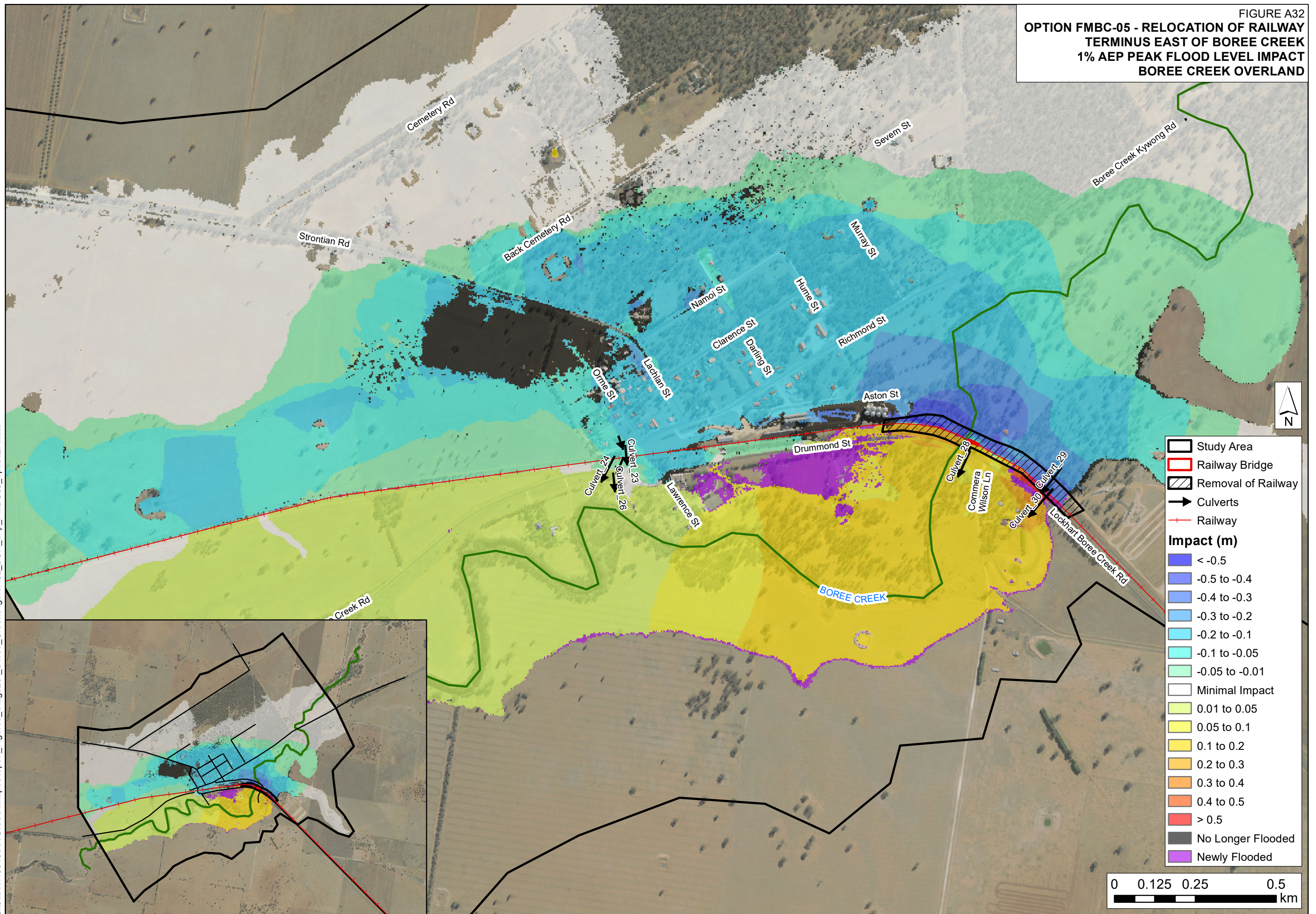


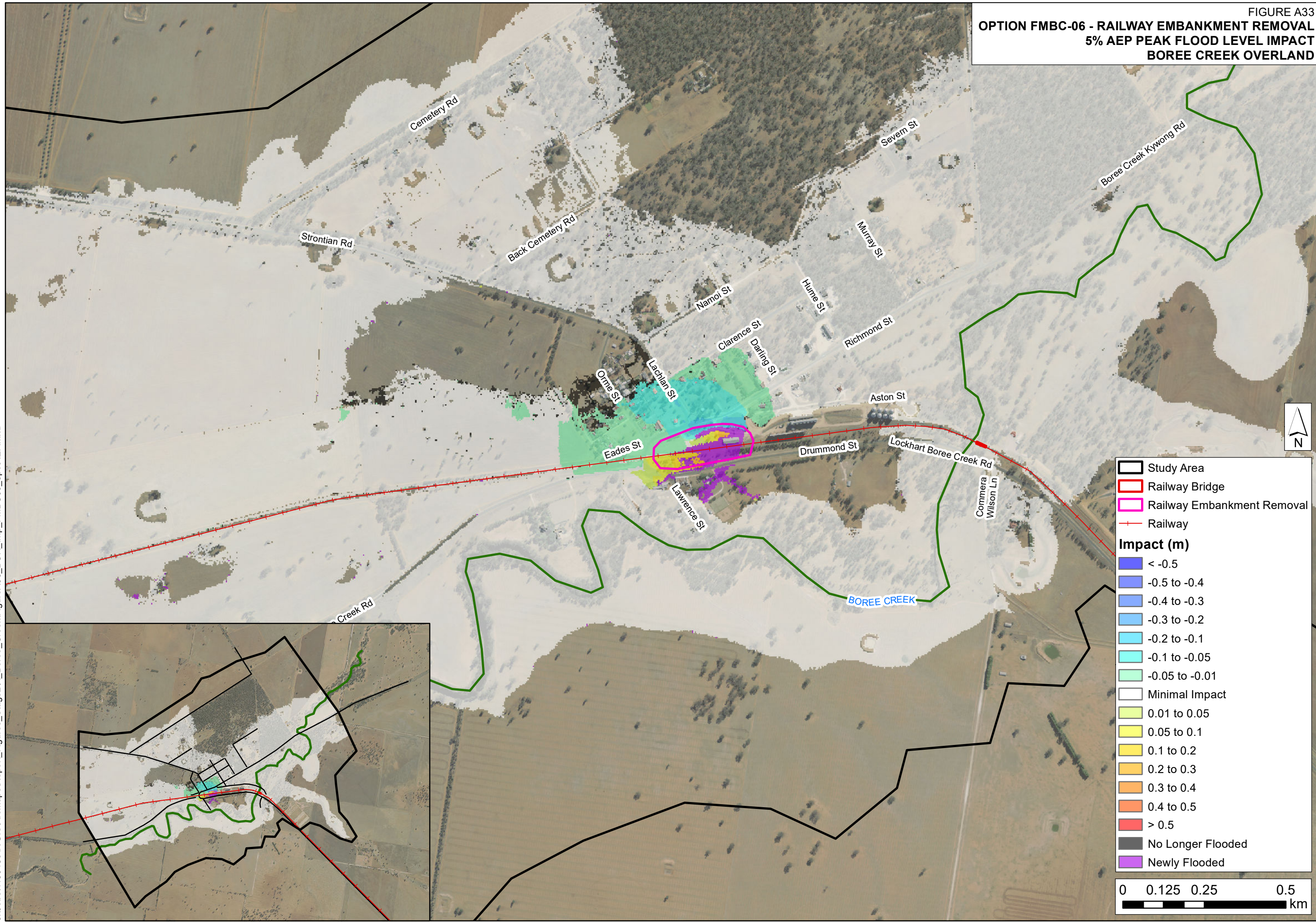
FIGURE A32
OPTION FMBC-05 - RELOCATION OF RAILWAY
TERMINUS EAST OF BOREE CREEK
1% AEP PEAK FLOOD LEVEL IMPACT
BOREE CREEK OVERLAND

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OPTION FMBC-06 - RAILWAY EMBANKMENT REMOVAL
5% AEP PEAK FLOOD LEVEL IMPACT
BOREE CREEK OVERLAND

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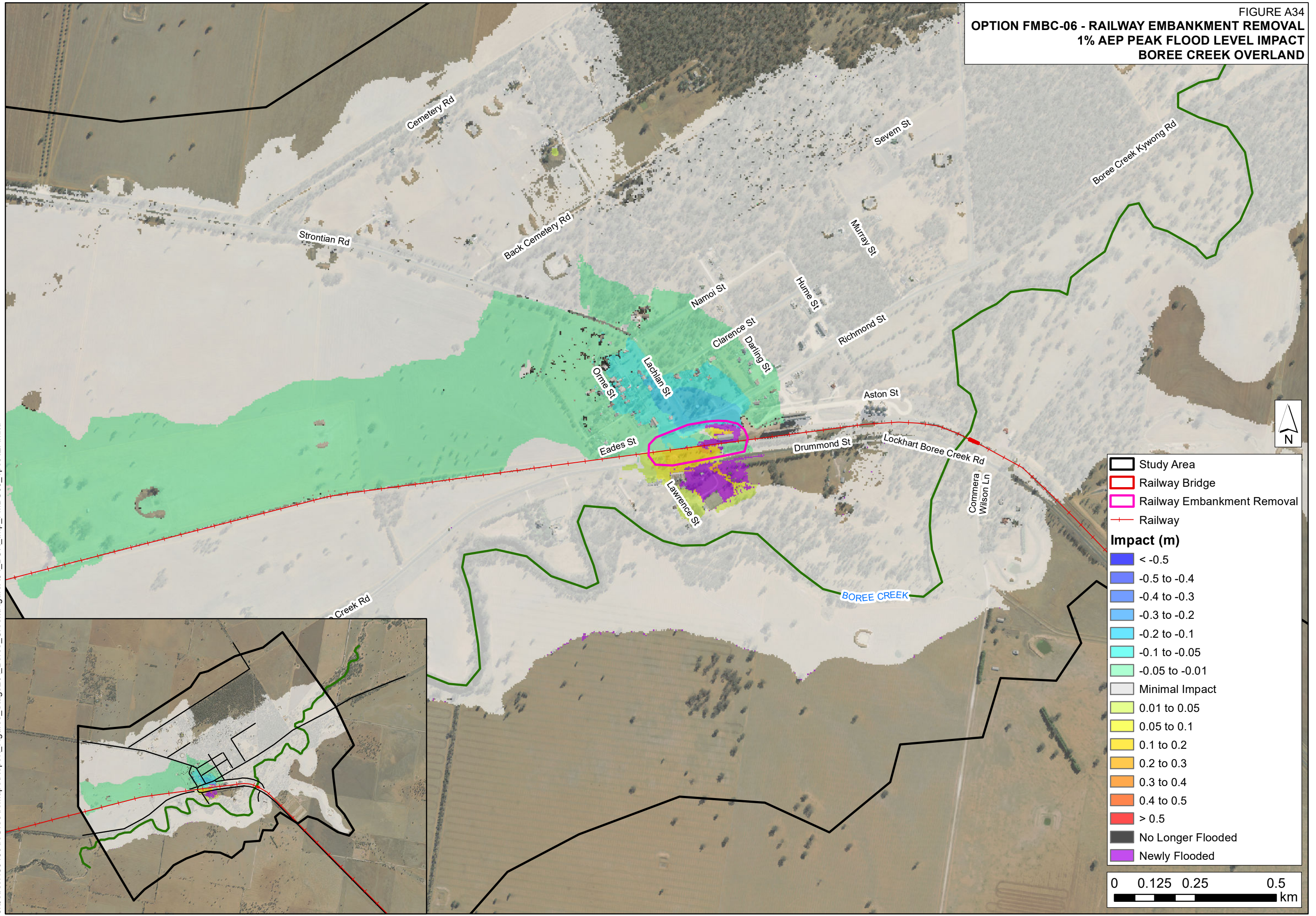


- Study Area
 - Railway Bridge
 - Railway Embankment Removal
 - Railway
- Impact (m)**
- < -0.5
 - 0.5 to -0.4
 - 0.4 to -0.3
 - 0.3 to -0.2
 - 0.2 to -0.1
 - 0.1 to -0.05
 - 0.05 to -0.01
 - Minimal Impact
 - 0.01 to 0.05
 - 0.05 to 0.1
 - 0.1 to 0.2
 - 0.2 to 0.3
 - 0.3 to 0.4
 - 0.4 to 0.5
 - > 0.5
 - No Longer Flooded
 - Newly Flooded

0 0.125 0.25 0.5 km

OPTION FMBC-06 - RAILWAY EMBANKMENT REMOVAL
1% AEP PEAK FLOOD LEVEL IMPACT
BOREE CREEK OVERLAND

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Legend

- Study Area
- Railway Bridge
- Railway Embankment Removal
- Railway

Impact (m)

- < -0.5
- 0.5 to -0.4
- 0.4 to -0.3
- 0.3 to -0.2
- 0.2 to -0.1
- 0.1 to -0.05
- 0.05 to -0.01
- Minimal Impact
- 0.01 to 0.05
- 0.05 to 0.1
- 0.1 to 0.2
- 0.2 to 0.3
- 0.3 to 0.4
- 0.4 to 0.5
- > 0.5
- No Longer Flooded
- Newly Flooded

Scale

0 0.125 0.25 0.5 km

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