Randwick City Council
a sense of community

Bayside Council
Serving Our Community

BIRDS GULLY AND BUNNERONG ROAD
FINAL FLOOD STUDY
VOLUME 2 – APPENDIX B – C – D – E – F

wma water

JUNE 2018

Appendix B

FIGURE B1A
BIRDS GULLY AND BUNNERONG ROAD
LOCATIONS OF RECORDED FLOOD DEPTHS
AND OBSEREVED FLOOD BEHAVIOUR
BG144
BG040
BG044
BG049
BG051
BG052
BG054
BG173
BG151
BG039
BG174
BG031
BG033
BG012
BG043
BG136
BG139
BG145
BG010
BG045
BG037
BG148
Recorded Flood Depths and Behaviour
Study Area
0
0.125
0.25
0.5
0.75
1
Km
J:\Jobs\116083\ArcMaps\ReportFigures\AppendixB\FigureB01A_LocationsRecordedFloodDepthObservedBehaviour.mxd

FIGURE B1B
BIRDS GULLY AND BUNNERONG ROAD LOCATIONS OF RECORDED FLOOD DEPTHS AND OBSEREVED FLOOD BEHAVIOUR

J:\Jobs\116083\ArcMaps\ReportFigures\AppendixB\FigureB01B_LocationsRecordedFloodDepthObservedBehaviour.mxd

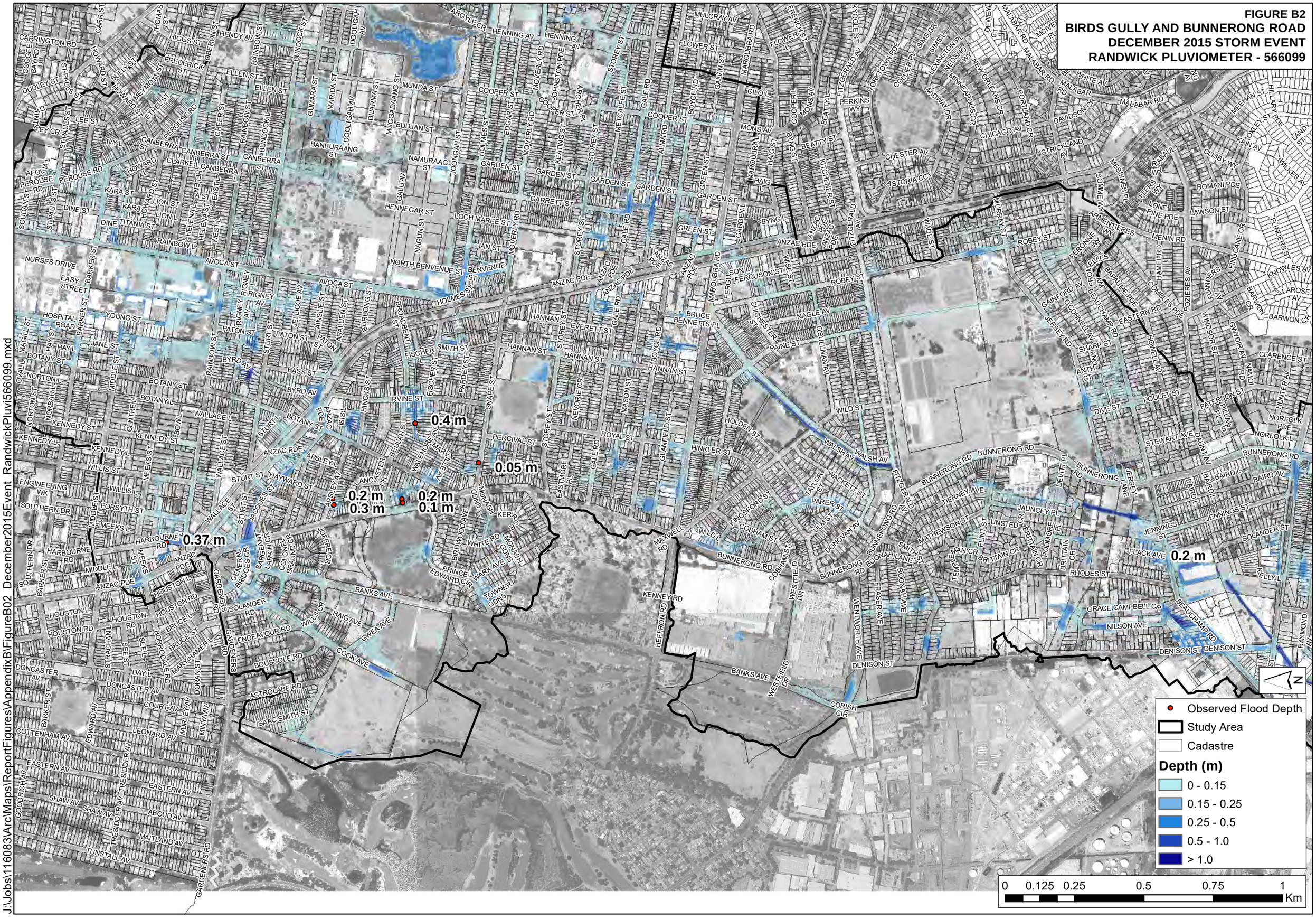

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FIGURE B3
BIRDS GULLY AND BUNNERONG ROAD
DECEMBER 2015 STORM EVENT
RANDWICK PLUVIOMETER - 566099
PHOTOS BG016

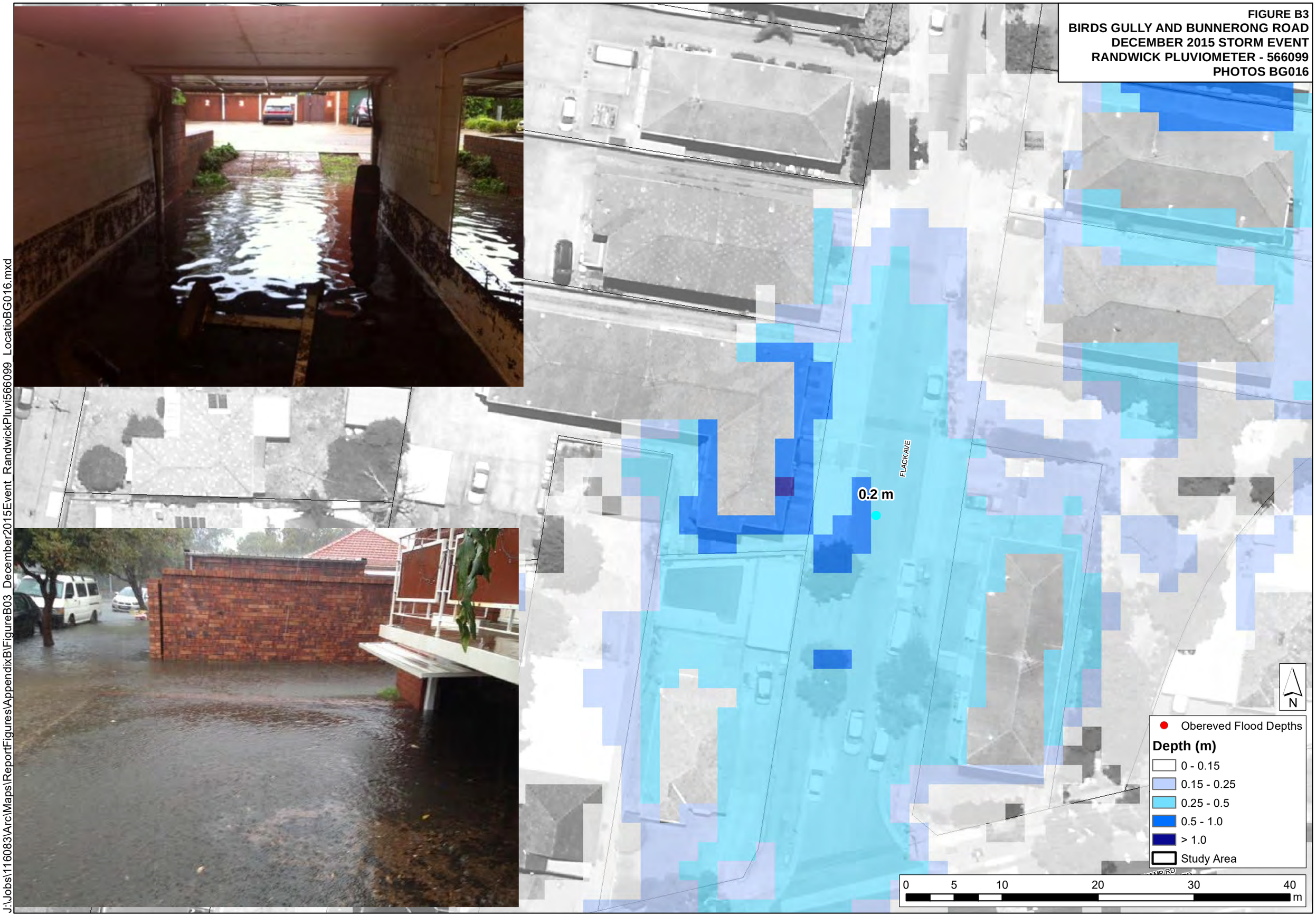

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FIGURE B4
BIRDS GULLY AND BUNNERONG ROAD
DECEMBER 2015 STORM EVENT
RANDWICK PLUVIOMETER - 566099
PHOTOS BG031

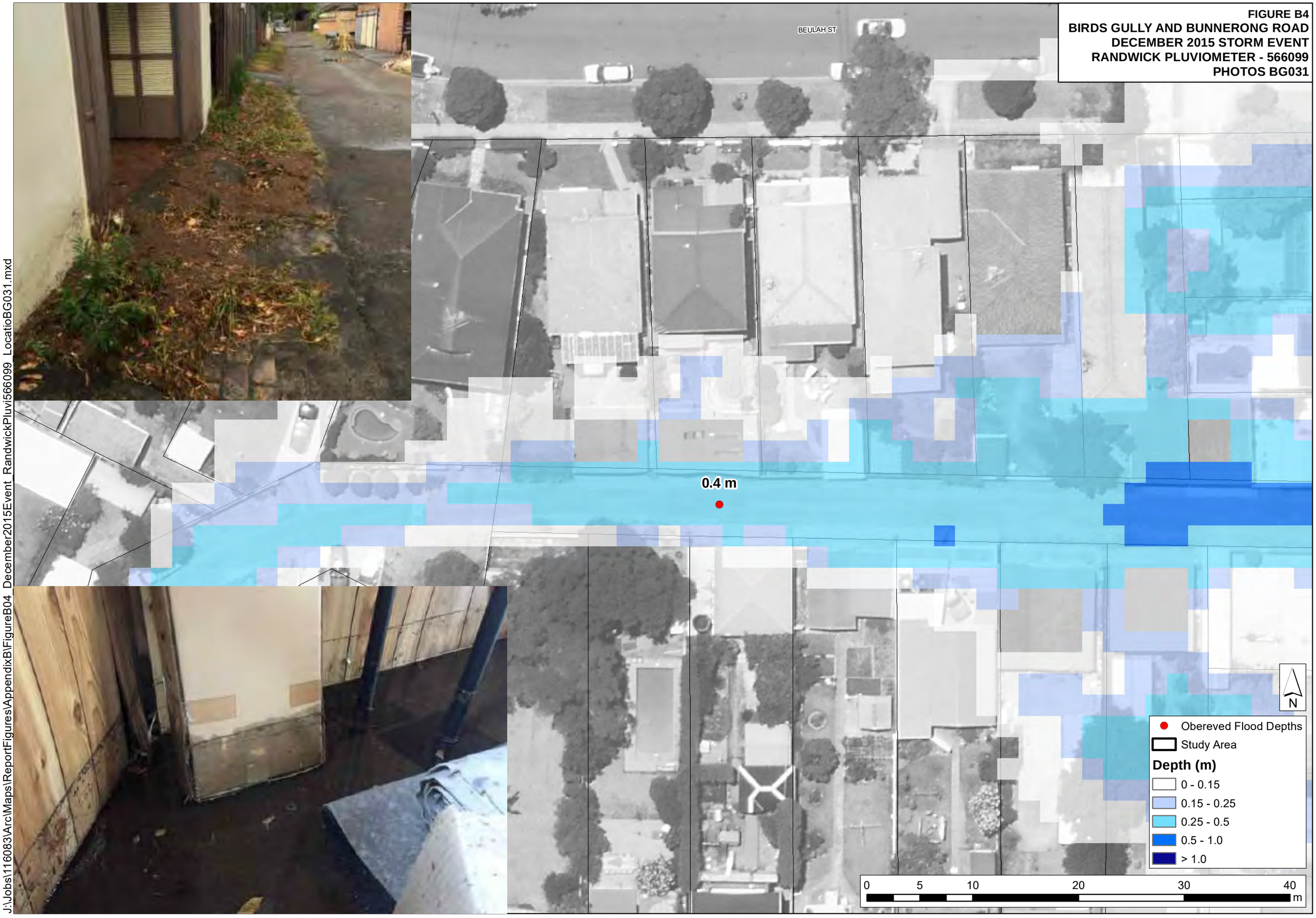

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FIGURE B5
BIRDS GULLY AND BUNNERONG ROAD
DECEMBER 2015 STORM EVENT
RANDWICK PLUVIOMETER - 566099
PHOTOS BG139

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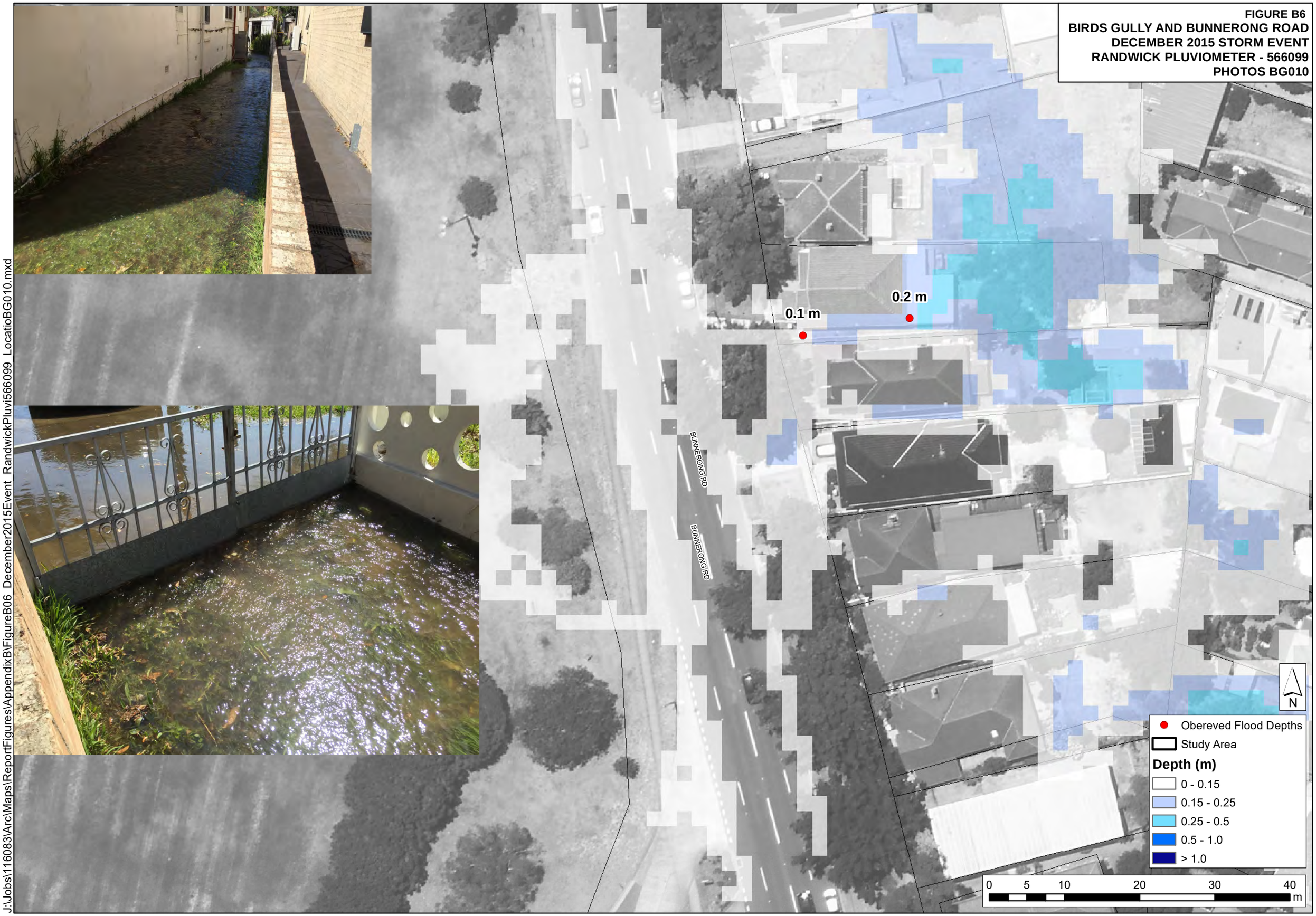
FIGURE B6
BIRDS GULLY AND BUNNERONG ROAD
DECEMBER 2015 STORM EVENT
RANDWICK PLUVIOMETER - 566099
PHOTOS BG010



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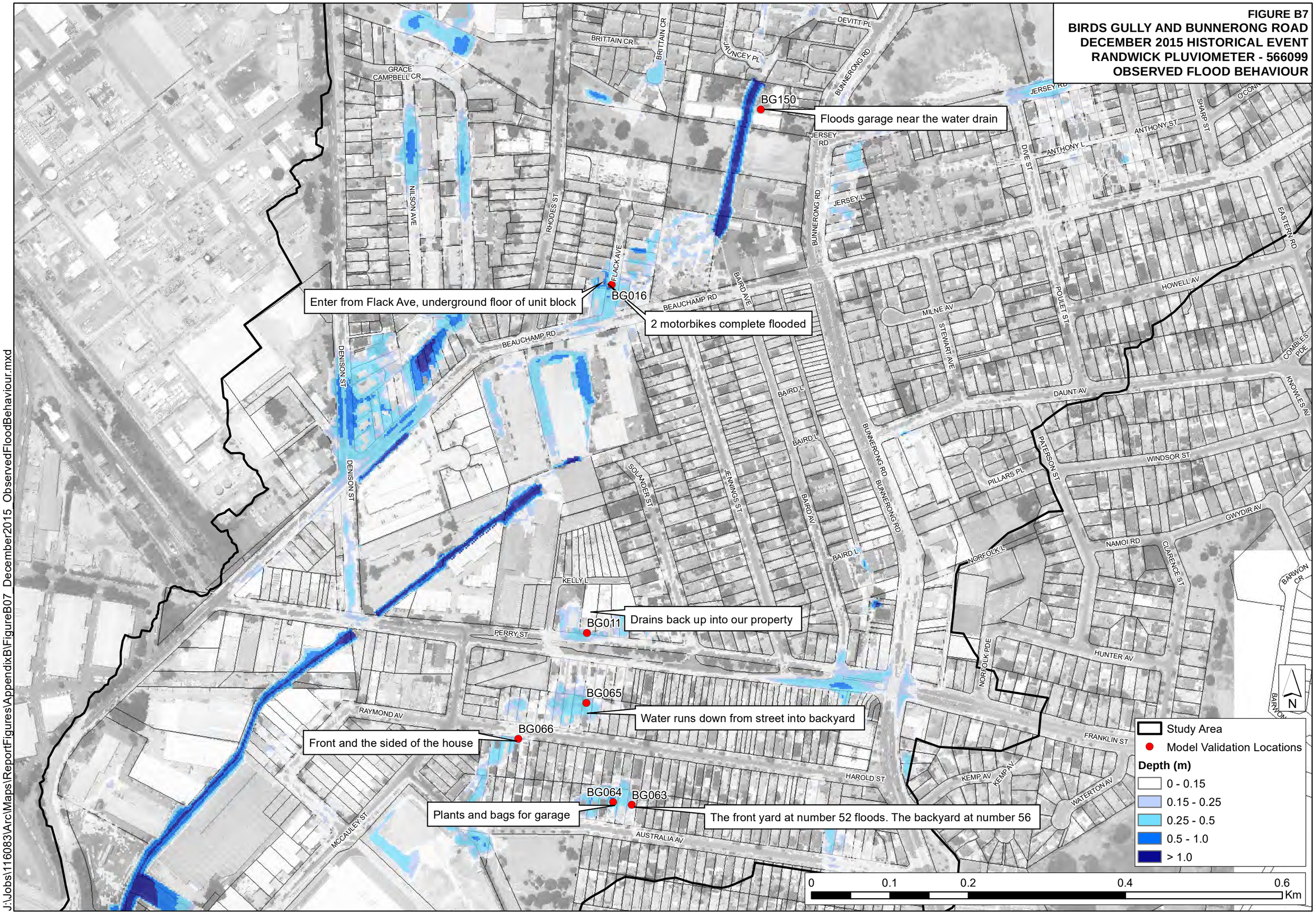

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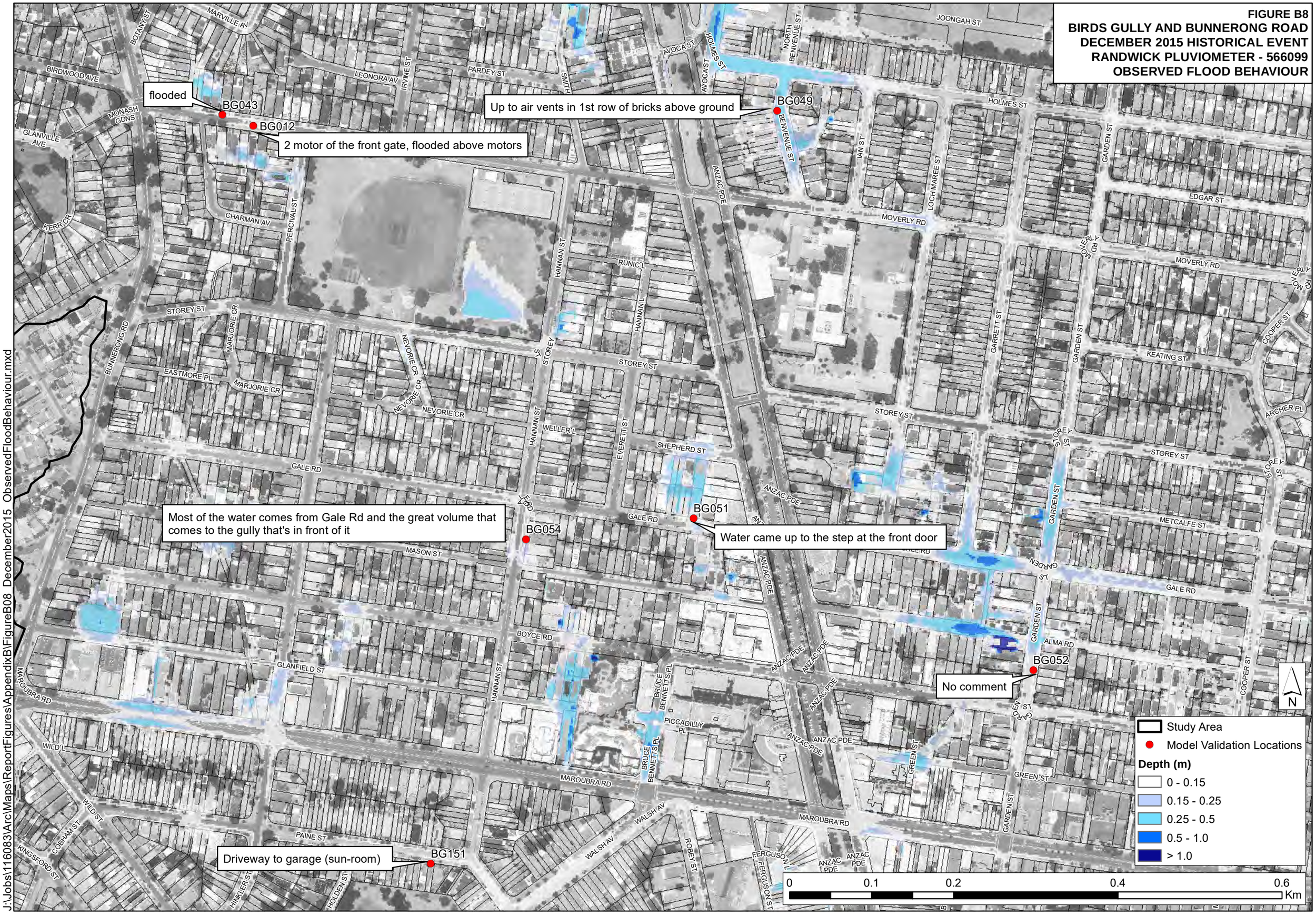
FIGURE B8
BIRDS GULLY AND BUNNERONG ROAD
DECEMBER 2015 HISTORICAL EVENT
RANDWICK PLUVIOMETER - 566099
OBSERVED FLOOD BEHAVIOUR
flooded
BG043
BG012
2 motor of the front gate, flooded above motors
Up to air vents in 1st row of bricks above ground
BG049
Most of the water comes from Gale Rd and the great volume that comes to the gully that's in front of it
BG054
BG051
Water came up to the step at the front door
BG052
No comment
Driveway to garage (sun-room)
BG151
Study Area
Model Validation Locations
Depth (m)
0 - 0.15
0.15 - 0.25
0.25 - 0.5
0.5 - 1.0
> 1.0
0
0.1
0.2
0.4
0.6
Km
N
J:\Jobs\116083\Arc\Maps\ReportFigures\AppendixB\FigureB08_December2015_ObservedFloodBehaviour.mxd

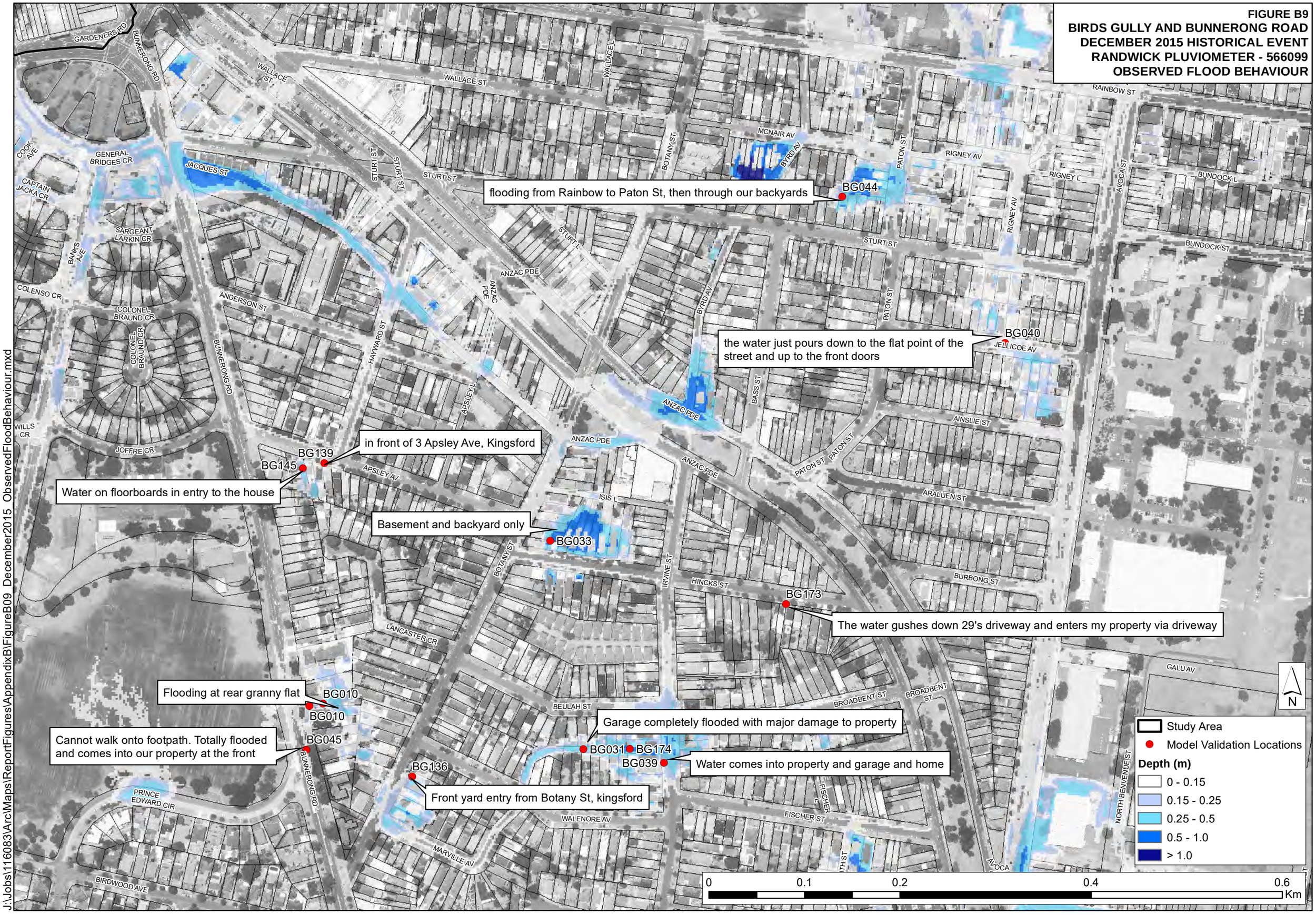
FIGURE B9
BIRDS GULLY AND BUNNERONG ROAD
DECEMBER 2015 HISTORICAL EVENT
RANDWICK PLUVIOMETER - 566099
OBSERVED FLOOD BEHAVIOUR
flooding from Rainbow to Paton St, then through our backyards
BG044
the water just pours down to the flat point of the street and up to the front doors
BG040
in front of 3 Apsley Ave, Kingsford
BG139
BG145
Water on floorboards in entry to the house
Basement and backyard only
BG033
BG173
The water gushes down 29's driveway and enters my property via driveway
Flooding at rear granny flat
BG010
BG010
Cannot walk onto footpath. Totally flooded and comes into our property at the front
BG045
Garage completely flooded with major damage to property
BG031
BG174
BG039
Water comes into property and garage and home
BG136
Front yard entry from Botany St, kingsford
GARDENERS RD
BUNNERONG RD
WALLACE ST
WALLACE L
STURT ST
STURT L
BOTANY ST
MCNAIR AV
BYRD AV
PATON ST
RIGNEY AV
RIGNEY L
AVOCA ST
BUNDOCK L
BUNDOCK ST
RAINBOW ST
COOK AVE
GENERAL BRIDGES CR
CAPTAIN JACKA CR
JACQUES ST
SARGEANT LARKIN CR
BANKS AVE
COLENSO CR
COLONEL BRAUND CR
ANDERSON ST
HAYWARD ST
ANZAC PDE
APSLEY L
APSLEY AV
BASS ST
AINSLIE ST
JELLICOE AV
WILLS CR
JOFFRE CR
ISIS L
IRVINE ST
HINCKS ST
BURBONG ST
ARALUEN ST
LANCASTER CR
BEULAH ST
BROADBENT ST
GALU AV
FISCHER L
FISCHER ST
WALENORE AV
MARVILLE AV
PRINCE EDWARD CIR
BIRDWOOD AVE
NORTH BENVENUE ST
N
Study Area
Model Validation Locations
Depth (m)
0 - 0.15
0.15 - 0.25
0.25 - 0.5
0.5 - 1.0
> 1.0
0
0.1
0.2
0.4
0.6
Km
J:\Jobs\116083\Arc\Maps\ReportFigures\AppendixB\FigureB09_December2015_ObservedFloodBehaviour.mxd

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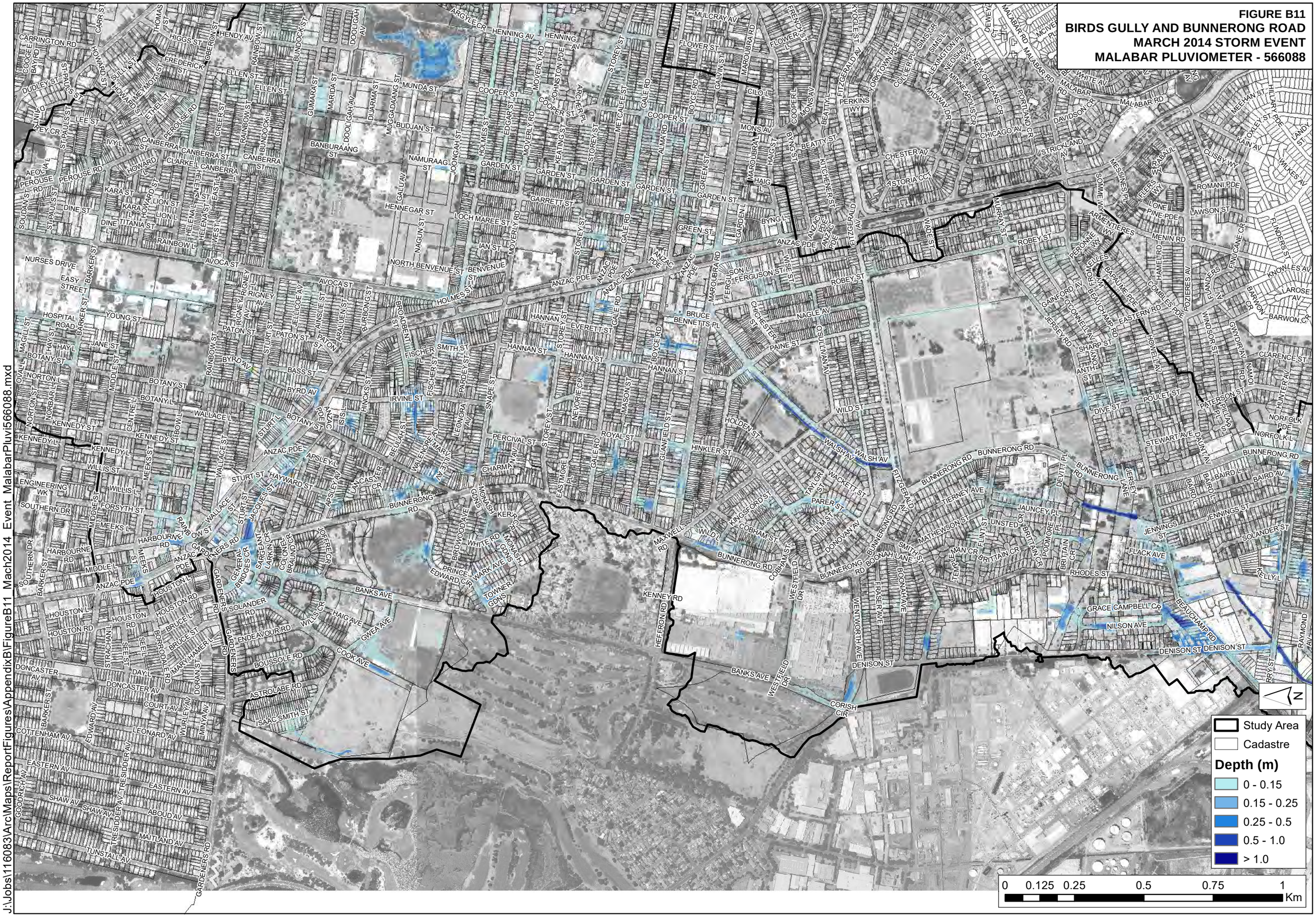
FIGURE B11
BIRDS GULLY AND BUNNERONG ROAD
MARCH 2014 STORM EVENT
MALABAR PLUVIOMETER - 566088
Study Area
Cadastre
Depth (m)
0 - 0.15
0.15 - 0.25
0.25 - 0.5
0.5 - 1.0
> 1.0
0 0.125 0.25 0.5 0.75 1
Km
N
J:\Jobs\116083\Arc\Maps\ReportFigures\AppendixB\FigureB11_Mach2014_Event_MalabarPluvi566088.mxd

FIGURE B12
BIRDS GULLY AND BUNNERONG ROAD
MARCH 2014 STORM EVENT
MALABAR PLUVIOMETER - 566088
PHOTOS BG065

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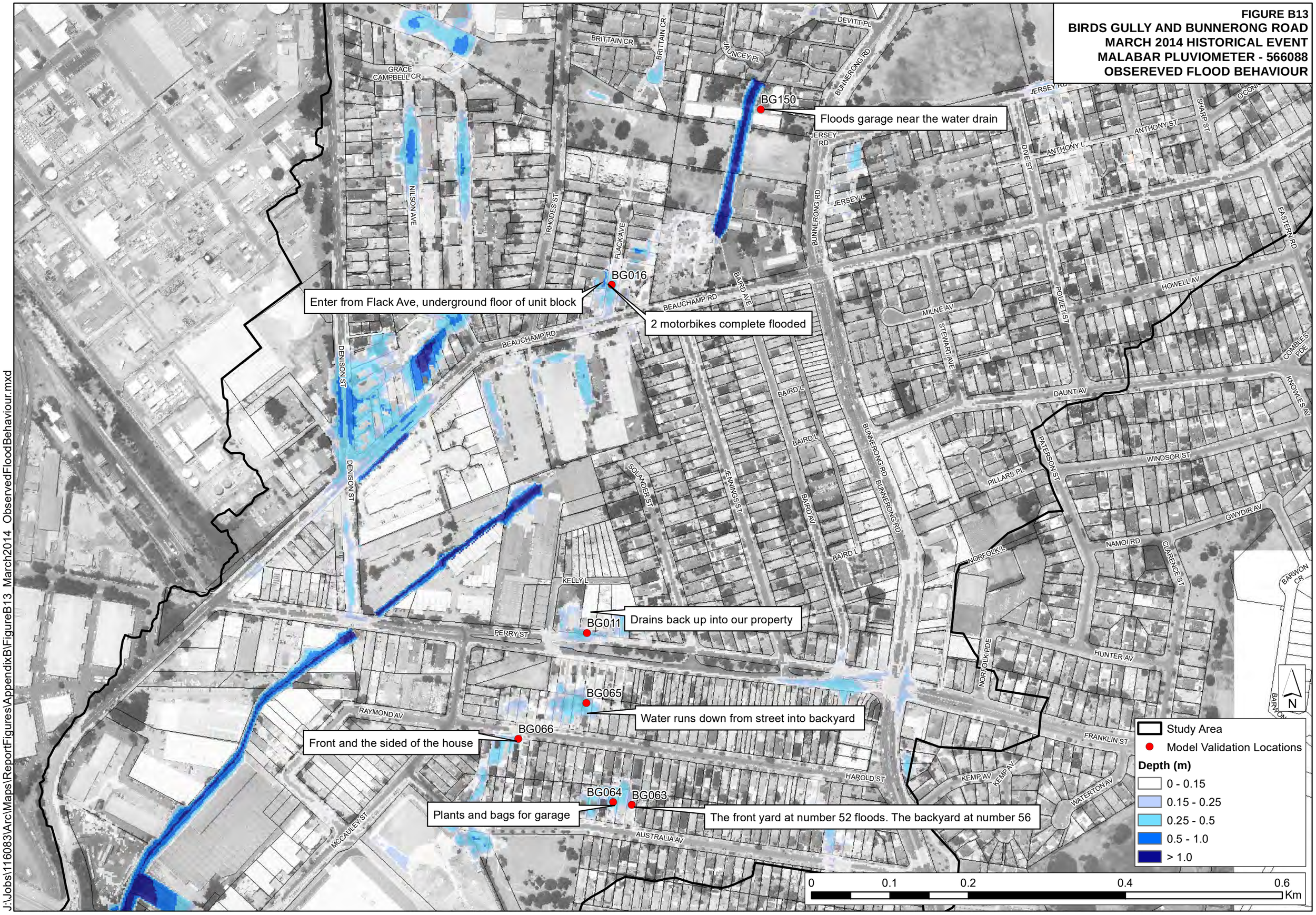
FIGURE B13
BIRDS GULLY AND BUNNERONG ROAD
MARCH 2014 HISTORICAL EVENT
MALABAR PLUVIOMETER - 566088
OBSEREVED FLOOD BEHAVIOUR
BG150
Floods garage near the water drain
BG016
Enter from Flack Ave, underground floor of unit block
2 motorbikes complete flooded
BG011
Drains back up into our property
BG065
Water runs down from street into backyard
BG066
Front and the sided of the house
BG064
BG063
Plants and bags for garage
The front yard at number 52 floods. The backyard at number 56
BRITTAIN CR
DEVITT PL
JAUNCEY PL
GRACE CAMPBELL CR
BUNNERONG RD
JERSEY RD
JERSEY L
ANTHONY L
ANTHONY ST
SHARP ST
DIVE ST
EASTERN RD
NILSON AVE
RHODES ST
FLACK AVE
BAIRD AVE
BEAUCHAMP RD
HOWELL AV
MILNE AV
STEWART AVE
POULET ST
COMBLES PDE
DAUNT AV
KNOWLES AV
DENISON ST
BAIRD L
PATERSON ST
WINDSOR ST
PILLARS PL
SOLANDER ST
JENNINGS ST
BAIRD AV
GWYDIR AV
NAMOI RD
CLARENCE ST
NORFOLK L
BARWON CR
KELLY L
PERRY ST
NORFOLK PDE
HUNTER AV
RAYMOND AV
FRANKLIN ST
HAROLD ST
KEMP AV
WATERTON AV
MCCAULEY ST
AUSTRALIA AV
Study Area
Model Validation Locations
Depth (m)
0 - 0.15
0.15 - 0.25
0.25 - 0.5
0.5 - 1.0
> 1.0
0
0.1
0.2
0.4
0.6
Km
N
J:\Jobs\116083\Arc\Maps\ReportFigures\AppendixB\FigureB13_March2014_ObservedFloodBehaviour.mxd

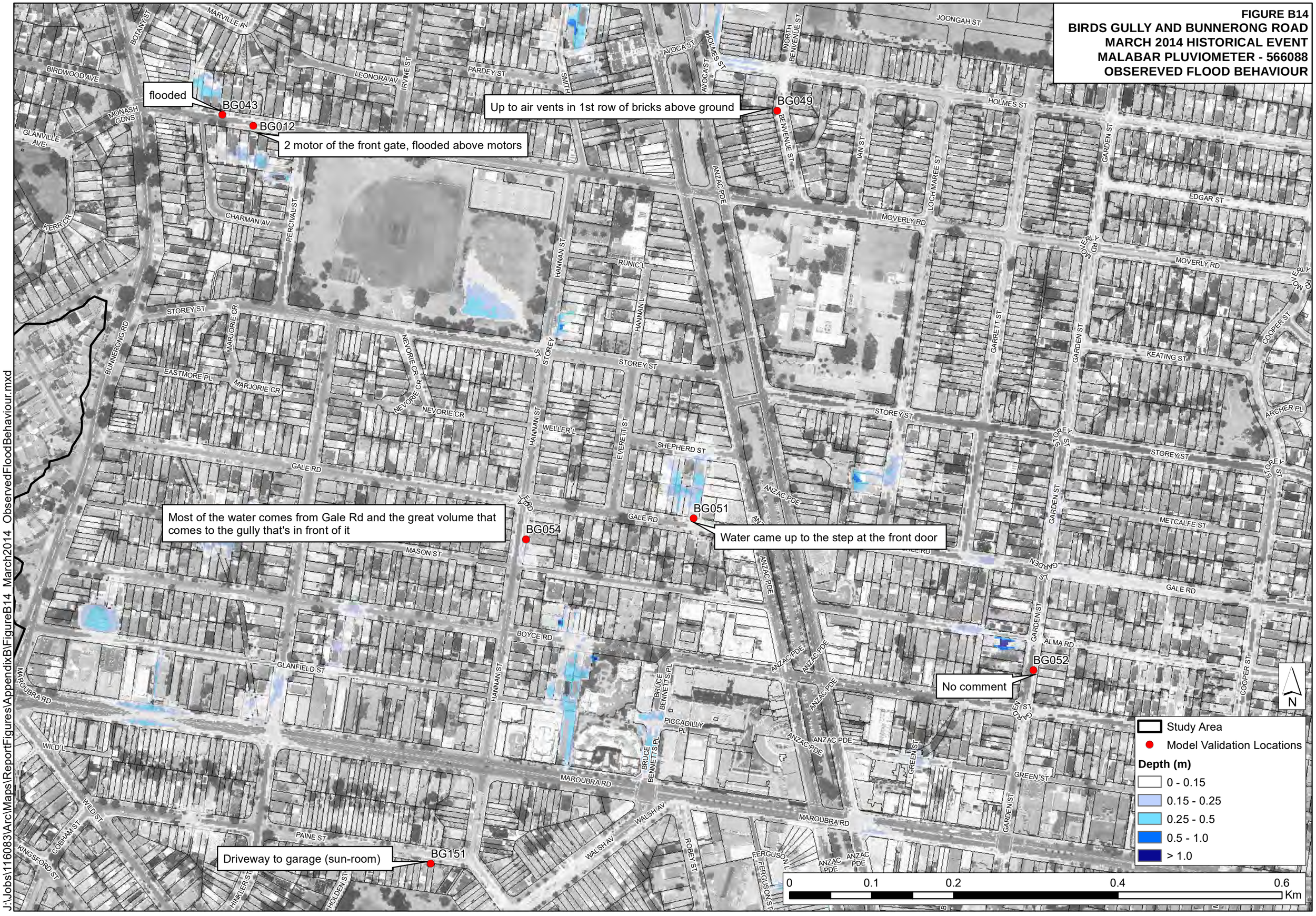
FIGURE B14
BIRDS GULLY AND BUNNERONG ROAD
MARCH 2014 HISTORICAL EVENT
MALABAR PLUVIOMETER - 566088
OBSEREVED FLOOD BEHAVIOUR
flooded
BG043
BG012
2 motor of the front gate, flooded above motors
Up to air vents in 1st row of bricks above ground
BG049
BG051
Water came up to the step at the front door
BG054
Most of the water comes from Gale Rd and the great volume that comes to the gully that's in front of it
BG052
No comment
BG151
Driveway to garage (sun-room)
Study Area
Model Validation Locations
Depth (m)
0 - 0.15
0.15 - 0.25
0.25 - 0.5
0.5 - 1.0
> 1.0
0
0.1
0.2
0.4
0.6
Km
N
J:\Jobs\116083\ArcMaps\ReportFigures\AppendixB\FigureB14_March2014_ObservedFloodBehaviour.mxd

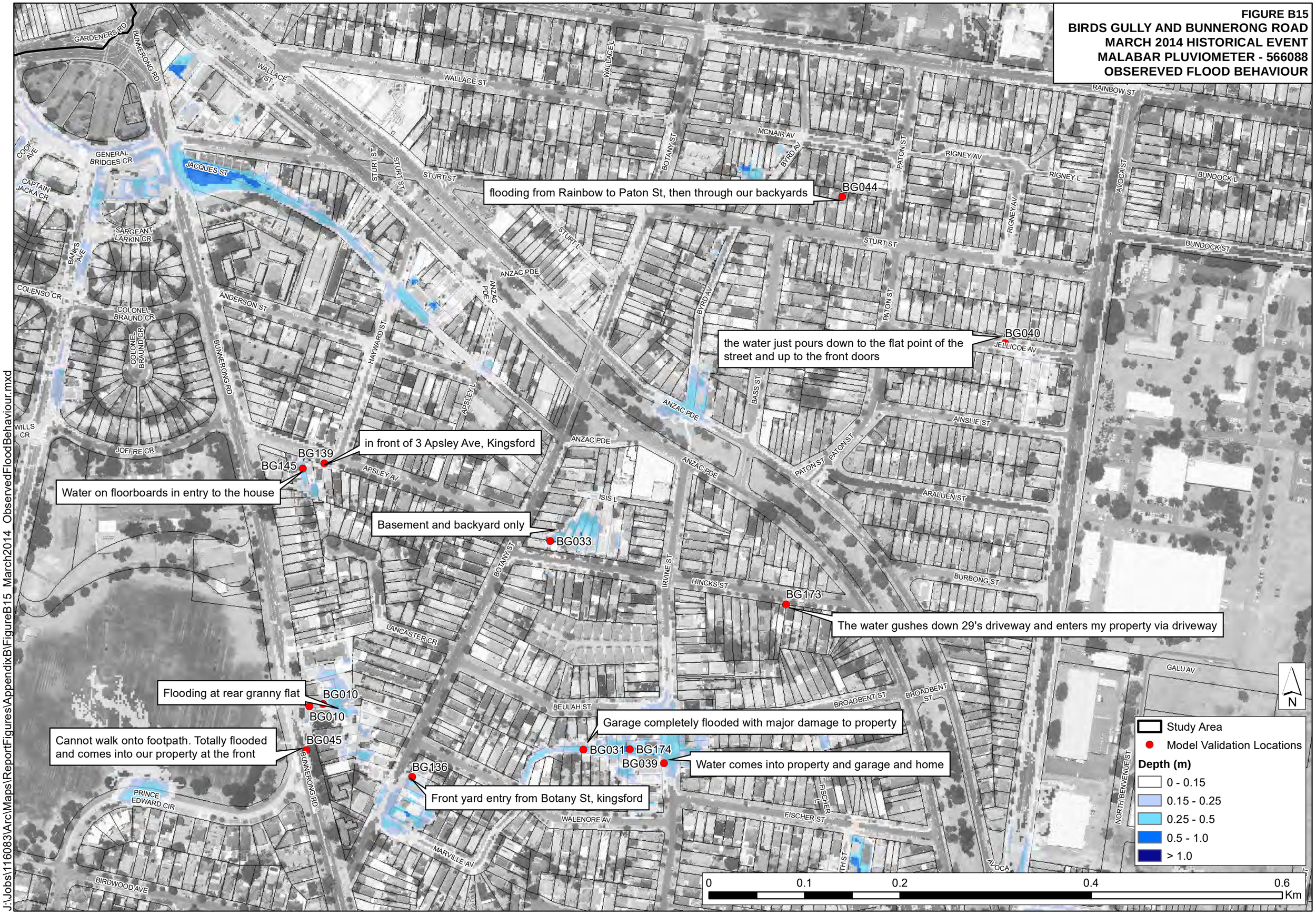
FIGURE B15
BIRDS GULLY AND BUNNERONG ROAD
MARCH 2014 HISTORICAL EVENT
MALABAR PLUVIOMETER - 566088
OBSEREVED FLOOD BEHAVIOUR
flooding from Rainbow to Paton St, then through our backyards
BG044
the water just pours down to the flat point of the street and up to the front doors
BG040
in front of 3 Apsley Ave, Kingsford
BG139
BG145
Water on floorboards in entry to the house
Basement and backyard only
BG033
BG173
The water gushes down 29's driveway and enters my property via driveway
Flooding at rear granny flat
BG010
BG010
Cannot walk onto footpath. Totally flooded and comes into our property at the front
BG045
Garage completely flooded with major damage to property
BG031
BG174
BG039
Water comes into property and garage and home
BG136
Front yard entry from Botany St, kingsford
GARDENERS RD
BUNNERONG RD
WALLACE ST
WALLACE L
MCNAIR AV
BOTANY ST
BYRD AV
PATON ST
RIGNEY AV
RIGNEY L
RAINBOW ST
AVOCA ST
BUNDOCK L
BUNDOCK ST
STURT ST
STURT L
ANZAC PDE
ANDERSON ST
HAYWARD ST
APSLEY L
APSLEY AV
BASS ST
AINSLIE ST
ARALUEN ST
BURBONG ST
ISIS L
IRVINE ST
HINCKS ST
LANCASTER CR
BEULAH ST
BROADBENT ST
FISCHER L
FISCHER ST
WALENORE AV
MARVILLE AV
GALU AV
NORTH BENVENUE ST
JELLICOE AV
COOK AVE
GENERAL BRIDGES CR
JACQUES ST
CAPTAIN JACKA CR
SARGEANT LARKIN CR
BANKS AVE
COLENSO CR
COLONEL BRAUND CR
WILLS CR
JOFFRE CR
PRINCE EDWARD CIR
BIRDWOOD AVE
N
Study Area
Model Validation Locations
Depth (m)
0 - 0.15
0.15 - 0.25
0.25 - 0.5
0.5 - 1.0
> 1.0
0
0.1
0.2
0.4
0.6
Km
J:\Jobs\116083\Arc\Maps\ReportFigures\AppendixB\FigureB15_March2014_ObservedFloodBehaviour.mxd

FIGURE B16
BIRDS GULLY AND BUNNERONG ROAD
MARCH 2014 HISTORICAL EVENT
MALABAR PLUVIOMETER - 566088
OBSEREVED FLOOD BEHAVIOUR
BG144
Water floods footpath on south side of road
BG148
Basement level 2 carpark
BG037
Building 2 lifts, resident car damage
Study Area
Model Validation Locations
Depth (m)
0 - 0.15
0.15 - 0.25
0.25 - 0.5
0.5 - 1.0
> 1.0
0
0.1
0.2
0.4
0.6
Km
N
WARATAH AV
ARTHUR ST
WANSEY RD
BOTANY ST
ARTHUR L
MILFORD ST
SHORT ST
BLENHEIM ST
CLARA ST
HIGH ST
FIRST AV WEST
INTERNATIONAL RD
FIRST AV EAST
SECOND AV NORTH
SECOND AV SOUTH
SECOND AV EAST
THIRD AV
COLLEGE RD
INTERNATIONAL LN
UNION RD
G2 LN
WESTERN CAMPUS DR
UNSW REGIMENT
FIGTREE LN
GATE 5 AV
GATE 6 AV
GATE 7 AV
OAK VALLEY LN
CHANCELLERY WK
GATE 10 L
MEARS L
MEARS AV
DON JUAN AV
BELMORE RD
UNIVERSITY MALL
DAY AV
LIBRARY WALK
LIBRARY WK
LIBRARY RD
SAMUELS LN
GATE 11 AV
EURIMBLA AV
HOSPITAL RD
DELIVERY DRIVE
CUTHILL ST
COOGEE BAY RD
SOUDAN L
BURROWS LN
K14 LN
J14 LN
K15 LN
ENGINEERING RD
SCIENCE RD
PHYSICS RD
WILLIS LN
OVAL L
MAGILL ST
EASY STREET
SOUDAN ST
AEOLIA ST
PEROUSE RD
AVOCA ST
ST PAULS L
ST PAULS ST
FRANCIS MARTIN DRIVE
HOUSTON RD
HOUSTON L
SOUTHERN DR
NORTON ST
NORBAR L
HAY ST
HAY L
MAUD ST
SIMEON PEARCE DRIVE
NURSES DRIVE
DINE ST
DINE L
BARKER ST
BARKER L
HARBOURNE L
HARBOURNE RD
KENNEDY L
KENNEDY ST
KENNETH L
MIDDLE ST
MIDDLE L
WILLIS ST
JANE ST
YOUNG ST
STRACHAN ST
STRACHAN L
SEE ST
SEE L
MEEKS ST
MEEKS L
FORSYTH ST
CENTRE L
BOTANY L
BORRODALE RD
ANZAC PDE
BOW L
RAINBOW ST
SOUTHERN CROSS CL
BRUCE ST
BRUCE L
J:\Jobs\116083\Arc\Maps\ReportFigures\AppendixB\FigureB16_March2014_ObservedFloodBehaviour.mxd

Appendix C

FIGURE C1
PEAK FLOOD DEPTHS
BIRDS GULLY AND BUNNERONG ROAD
1 EY EVENT

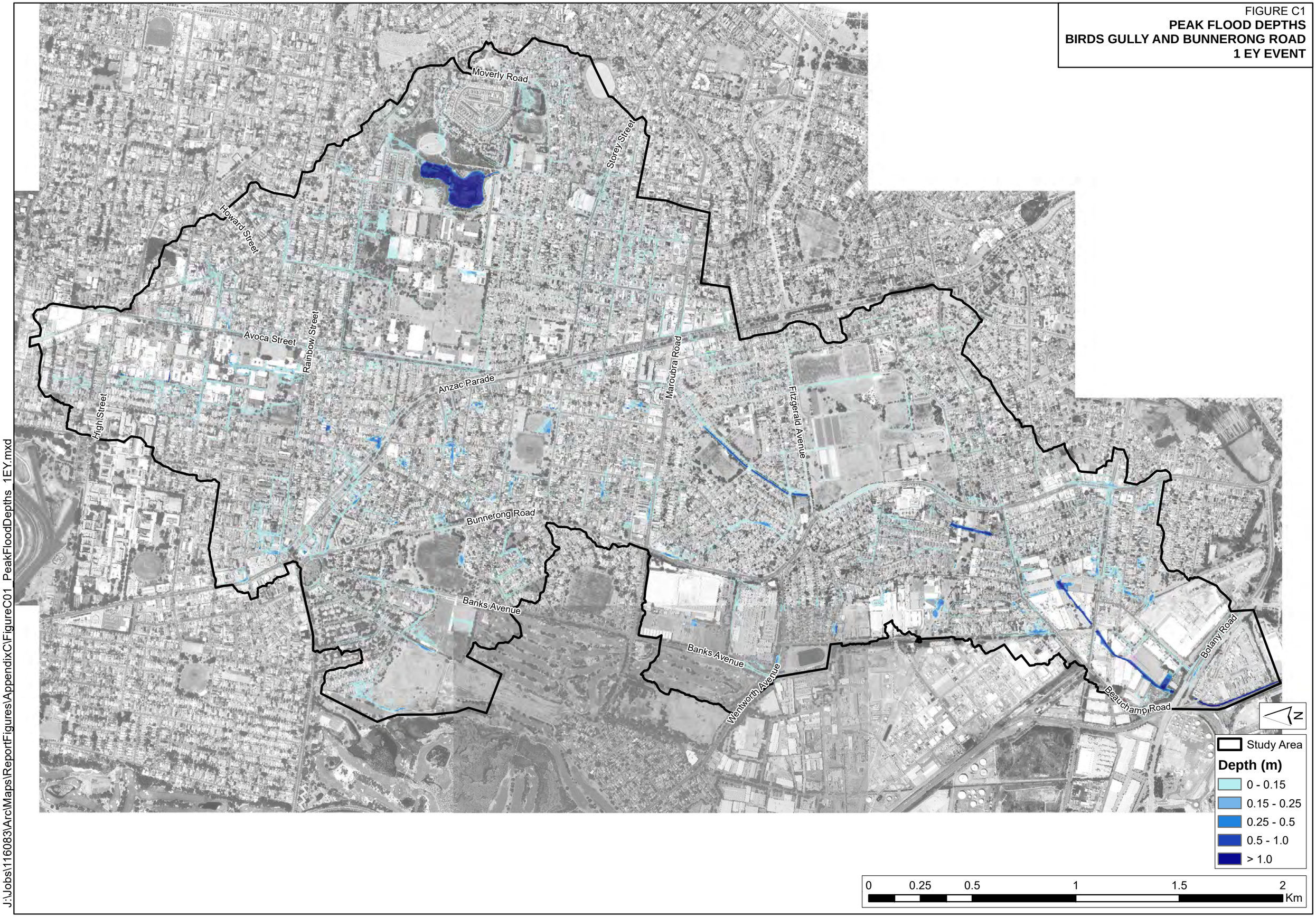

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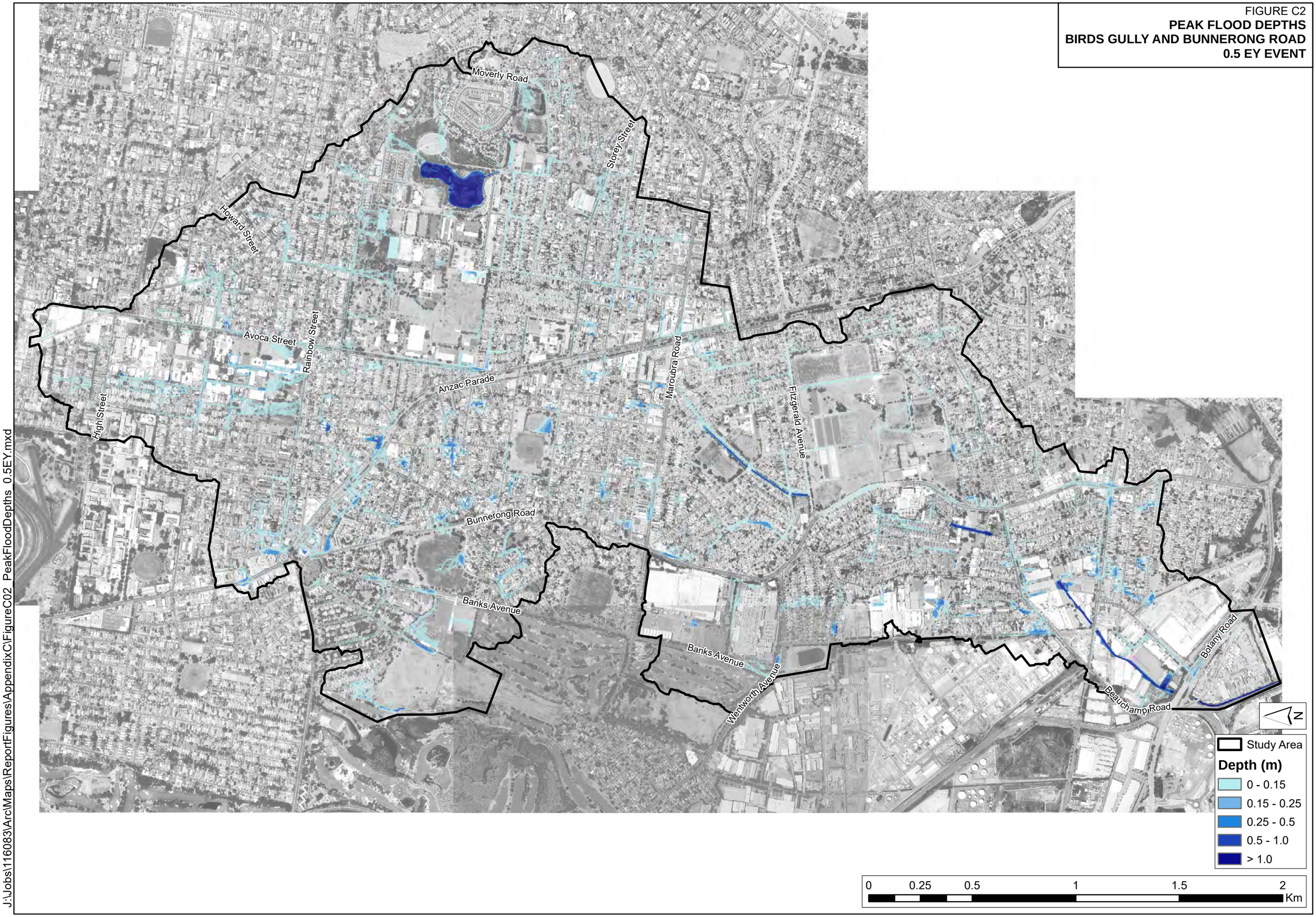
FIGURE C2
PEAK FLOOD DEPTHS
BIRDS GULLY AND BUNNERONG ROAD
0.5 EY EVENT



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