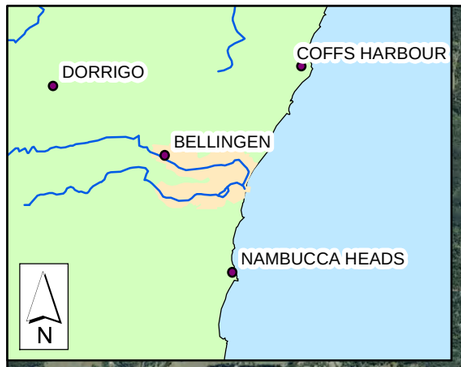
FIGURE 1
STUDY AREA



REPTON
NORTH BELLINGEN
BELLINGEN
Cemetery Creek
Bellinger River
Pacific Highway
RALEIGH
North Coast Railway
Tuckers Island
Pacific Ocean
Boggy Creek
Back Creek
Kalang River
Kalang River North Arm
Kalang River South Arm
URUNGA
NEWRY ISLAND
Uranga Lagoon
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
N
Reporting Locations
Hydraulic Model Extent
0 1 2 4 6
km

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FIGURE 2
AVAILABLE SURVEY DATA

NORTH BELLINGEN
BELLINGEN
Bellinger River
Kalang River
Kalang River North Arm
Kalang River South Arm
NEWRY ISLAND
Pacific Highway
North Coast Railway
RALEIGH
REPTON
Tuckers Island
Boggy Creek
Back Creek
URUNGA
Urunga Lagoon
Pacific Ocean

N

- Hydrosurvey
- Bridge Survey 2019
- Pacific Highway Alignment
- Channel Survey 2019
- Cadastre
- Hydraulic Model Extent

Elevation (mAHD)
High : 20
Low : 0

0 1 2 4 6 km

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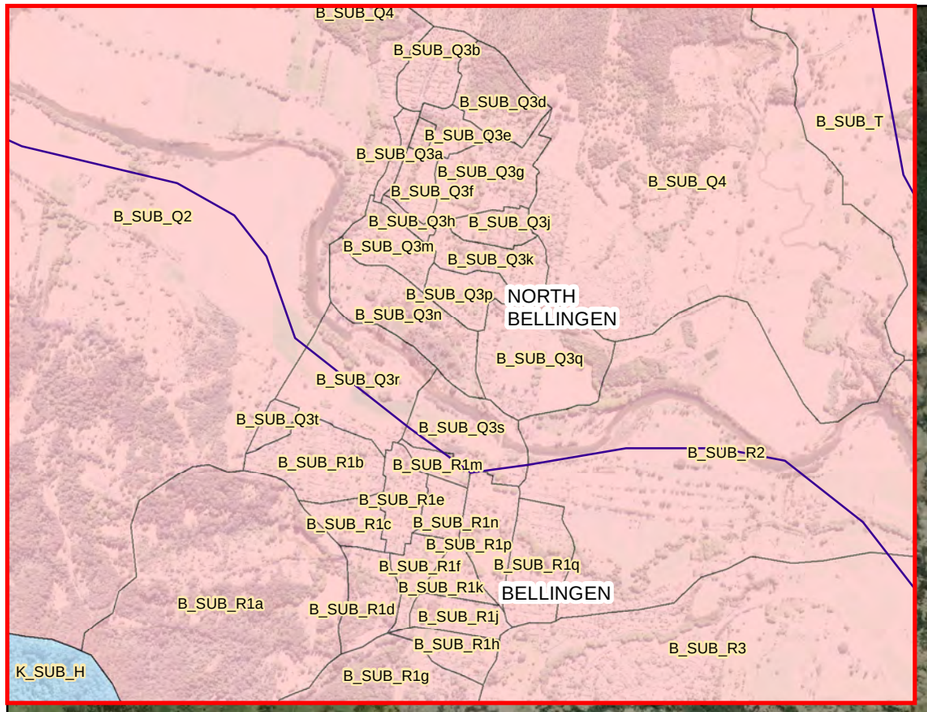
FIGURE 3
HYDROLOGIC MODEL LAYOUT



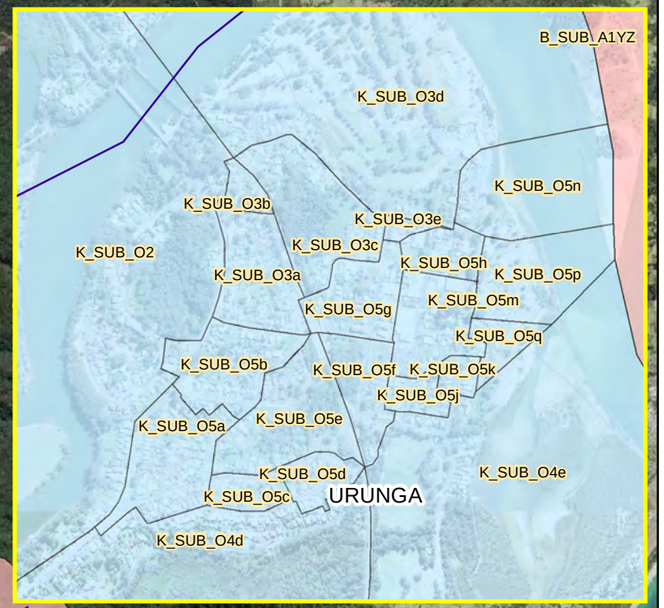


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FIGURE 4
HYDRAULIC (TUFLOW) MODEL LAYOUT

Inflow Boundary
Inflow Boundary
Inflow Boundary
Inflow Boundary
Inflow Boundary
Pacific Ocean
H-Timeseries

NORTH BELLINGEN
BELLINGEN
REPTON
RALEIGH
Tuckers Island
URUNGA
NEWRY ISLAND

Bellinger River
Kalang River
Kalang River North Arm
Kalang River South Arm
Pacific Highway
North Coast Railway
Boggy Creek
Back Creek
Kalang River
Urunga Lagoon

N

Pipes
Existing Structures
Downstream Boundary
Boundary Inflow
Local Inflow Region
Boundary Inflow Region
Cadastre
Hydraulic Model Extent

Elevation (mAHD)
High : 20
Low : 0

0 1 2 4 6 km

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FIGURE 5
MANNINGS "N" VALUES

REPTON
NORTH BELLINGEN
BELLINGEN
Cemetery Creek
Bellinger River
Pacific Highway
RALEIGH
North Coast Railway
Tuckers Island
Boggy Creek
Back Creek
Kalang River
Kalang River North Arm
Kalang River South Arm
URUNGA
NEWRY ISLAND
Kalang River
Uranga Lagoon

N

Hydraulic Model Extent

Manning's "n" Category

- 0.04 Low Density Residential, Farms
- 0.06 Medium Density Residential
- 0.08 Dense/ Thick Trees
- 0.04 Grass/ Open Space
- 0.03 Main River Channel
- 0.06 Overbank, Coastal Mangroves
- 0.045 Vegetated Creeks
- 0.02 Roads/ Railway line/ Culverts
- 0.025 Other Channel
- 0.06 Upper Kalang- River Bank
- 0.1 Upper Kalang- Dense Trees

0 1 2 4 6
km

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FIGURE 6
LEP 2011
LAND USE ZONES

NORTH BELLINGEN
BELLINGEN
Cemetery Creek
Bellinger River
REPTON
Pacific Highway
RALEIGH
North Coast Railway
Tuckers Island
Boggy Creek
Back Creek
Kalang River North Arm
Kalang River
URUNGA
NEWRY ISLAND
Kalang River South Arm
Kalang River
Uranga Lagoon

N

- Hydraulic Model Extent

Land Use Zone

- B1 Neighbourhood Centre
- B2 Local Centre
- B4 Mixed Use
- B5 Business Development
- B6 Enterprise Corridor
- DM Deferred Matter
- E1 National Parks and Nature Reserves
- E2 Environmental Conservation
- E3 Environmental Management
- E4 Environmental Living
- IN1 General Industrial
- IN2 Light Industrial
- R1 General Residential
- R2 Low Density Residential
- R3 Medium Density Residential
- R5 Large Lot Residential
- RE1 Public Recreation
- RE2 Private Recreation
- RU1 Primary Production
- RU2 Rural Landscape
- RU3 Forestry
- RU4 Primary Production Small Lots
- RU5 Village
- SP1 Special Activities
- SP2 Infrastructure
- W1 Natural Waterways
- W2 Recreational Waterways

0 1 2 4 6
km

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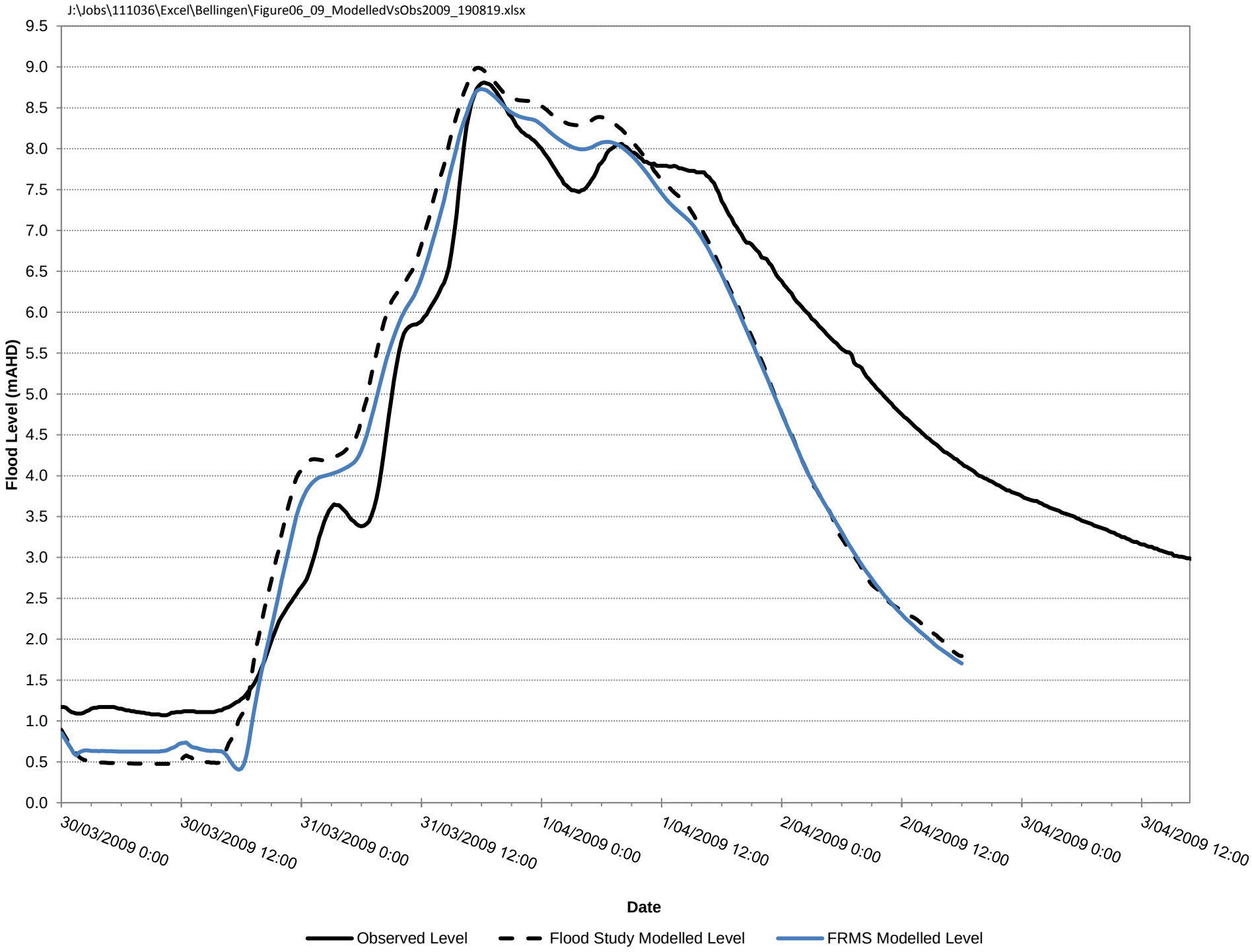

FIGURE 7

MODEL VALIDATION
MODELLED VS OBSERVED
2009 EVENT- BELLINGEN BRIDGE

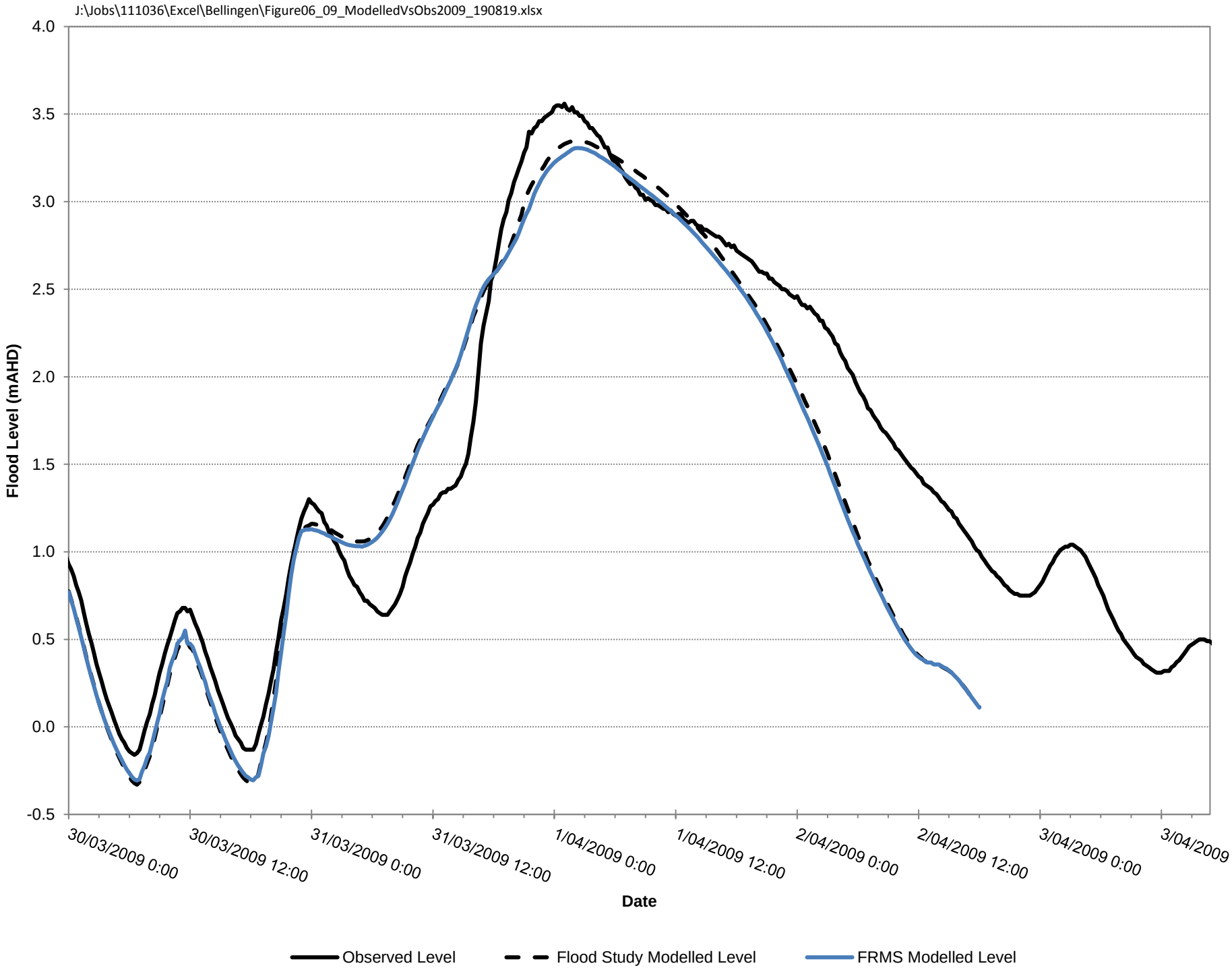

FIGURE 8

MODEL VALIDATION
MODELLED VS OBSERVED
2009 EVENT- REPTON GAUGE

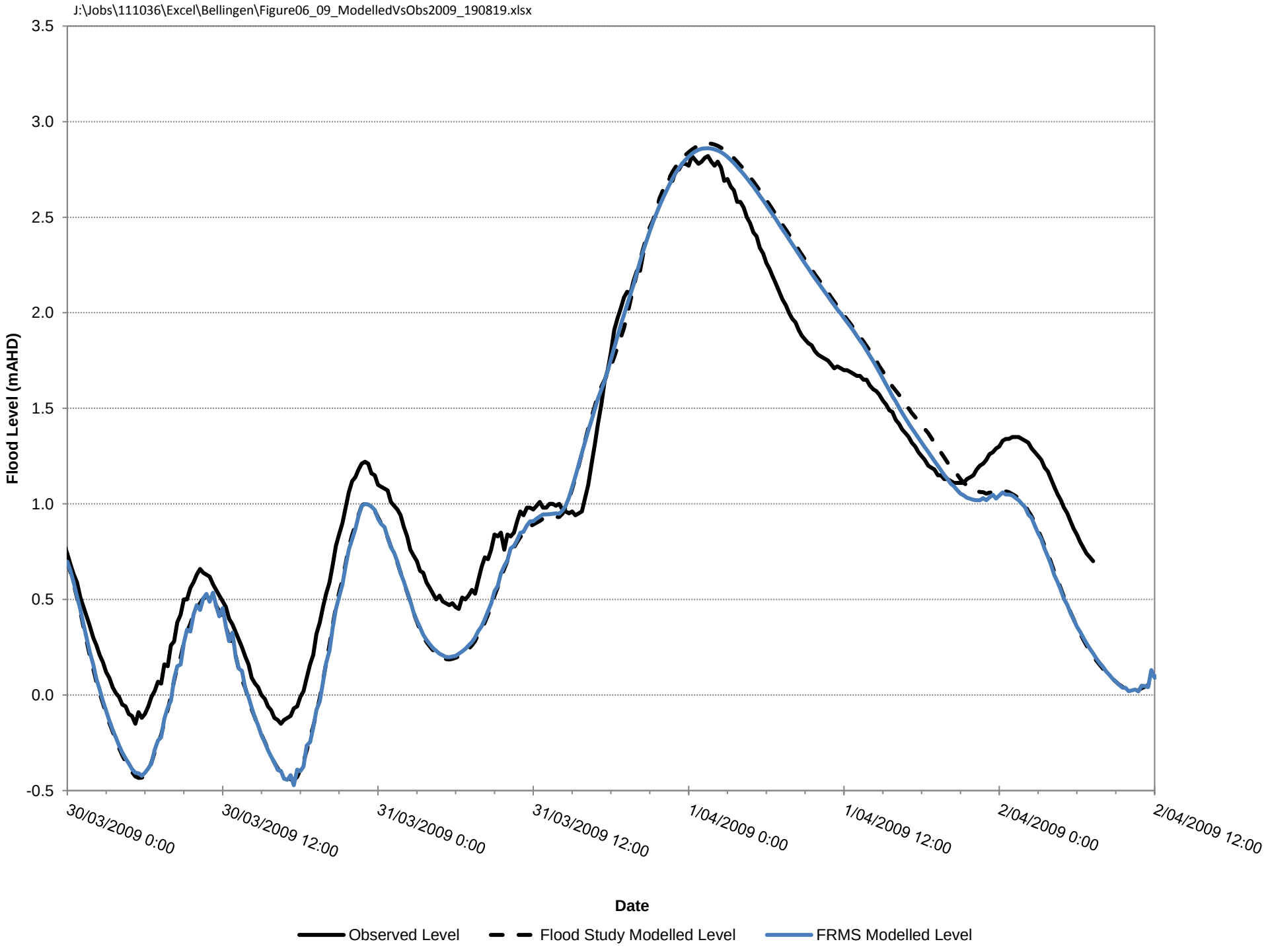

FIGURE 9
MODEL VALIDATION
MODELLED VS OBSERVED
2009 EVENT- URUNGA

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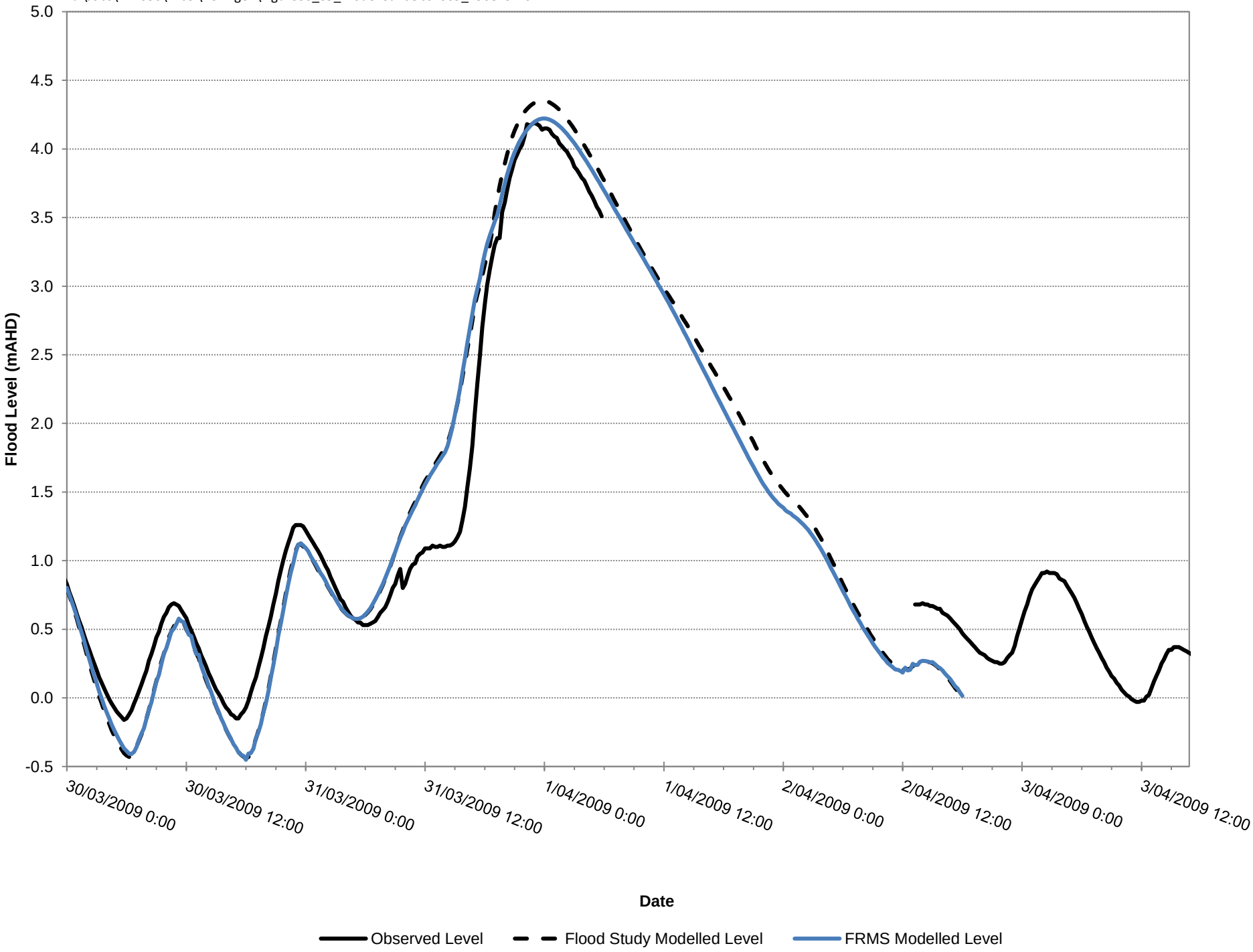

FIGURE 10
MODEL VALIDATION
MODELLED VS OBSERVED
2009 EVENT- NEWRY ISLAND

FIGURE 11
2009 CALIBRATION EVENT

NORTH BELLINGEN
BELLINGEN
REPTON
RALEIGH
URUNGA
NEWRY ISLAND
Pacific Highway
North Coast Railway
Bellinger River
Kalang River
Kalang River North Arm
Kalang River South Arm
Boggy Creek
Back Creek
Urunga Lagoon

10.35 10.35 9.94 10.1
9.05 9.49 9.56
8.72 8.81
7.61 7.97
6.83 7
6 6.38
4.52 5.1
3.96 4.24
3.41 3.56
3.71 3.9
2.79 3.07 3.09 2.79
2.75 2.94 2.93 2.95 2.75
2.87 3.03
2.79 2.79 3.09
2.75 2.95 2.94
3.52 3.58
3.46 3.54 3.53 3.53 3.39 3.56
3.58 3.56 3.51
3.58 0 3.59
2.87 2.82
3.46 3.53 3.54 3.53 3.39 3.56 3.58 3.51
3.58 0 3.56 3.59
3.62 3.54
3.73 3.65
1.73 1.7
9.89 9.81 10.69 10.17
9.05 9.24 9.79
6.74 7.2
6.54 6.69 6.44 6.35
4.48 4.26
4.22 4.19 4.49 4.3 4.2 4.33
9.89 13 10.69 10.17 9.81 33
9.05 14 9.79 8.71 59 9.24

Modelled Peak Flood Level (mAHD)
Observed Peak Flood Level (mAHD)
Hydraulic Model Extent
Peak Flood Level (m AHD)
High : 10
Low : 0

0 1 2 4 6 km

N

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FIGURE 12
COMPARISON OF FLOOD STUDY AND CURRENT FLOOD STUDY
1% AEP FLOOD LEVEL
(IMPACT OF MODEL UPDATE + ARR 2019)

NORTH BELLINGEN
BELLINGEN
Cemetery Creek
Bellinger River
REPTON
Pacific Highway
RALEIGH
North Coast Railway
Tuckers Island
Boggy Creek
Back Creek
Pacific Ocean
Kalang River North Arm
Kalang River
URUNGA
Kalang River South Arm
NEWRY ISLAND
Kalang River
Uranga Lagoon

N

Hydraulic Model Extent
Impact (m)
< -1
-1 - -0.75
-0.75 - -0.5
-0.5 - -0.25
-0.25 - -0.1
-0.1 - 0.1
0.1 - 0.25
0.25 - 0.5
0.5 - 0.75
0.75 - 1
> 1
No Longer Flooded
Newly Flooded

0 1 2 4 6 km

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FIGURE 13
PEAK FLOOD DEPTHS
5Y ARI EVENT

NORTH BELLINGEN
BELLINGEN
Cemetery Creek
Bellinger River
REPTON
Pacific Highway
RALEIGH
North Coast Railway
Tuckers Island
Boggy Creek
Back Creek
Pacific Ocean
Kalang River North Arm
Kalang River
URUNGA
Kalang River South Arm
NEWRY ISLAND
Kalang River
Uranga Lagoon

N

Hydraulic Model Extent
Peak Flood Depth (m)
0 - 0.5
0.5 - 2
2 - 4
4 - 6
6 - 8
>8

0 1 2 4 6
km

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FIGURE 14
PEAK FLOOD DEPTHS
5Y ARI EVENT
BELLINGEN

Bellinger River
Sunset Ridge Dr
Kenny Cl
Elliot Cl
Tamarind Dr
Lyon St
Casuarina Ave
Wheatley St
Dowle St
Mccristal Dr
Jagera Dr
McNally St
NORTH BELLINGEN
Hammond St
Bellingen Showgrounds
Hydes Creek Rd
Frenchmans Creek
Jordan Rd
N Bank Rd
Hydes Creek
Coronation St
Robert St
William St
Hyde St
Bowra St
Church St
Ford St
Prince St
Waterfall Way
Cemetery Creek
Watson St
BELLINGEN

N

Hydraulic Model Extent
Peak Flood Depth (m)
0 - 0.5
0.5 - 2
2 - 4
4 - 6
6 - 8
>8

0 0.125 0.25 0.5 0.75 km

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FIGURE 15
PEAK FLOOD DEPTHS
5Y ARI EVENT
URUNGA

Yellow Rock Rd
Kalang River
Bellinger Pi
Newry Island Dr
The Grove
Ginagay Way
Bellingen St
Atherton Dr
Bowra St
Orara St
URUNGA
Pilot St E
Morgo St
South St E
Kalang River North Arm
Pilot St
High St
Ginagay Way
Hillside Dr
Hungry Head Rd
Urunga Lagoon
NEWRY ISLAND
Kalang River South Arm

N

Hydraulic Model Extent
Peak Flood Depth (m)
0 - 0.5
0.5 - 2
2 - 4
4 - 6
6 - 8
>8

0 0.125 0.25 0.5 0.75 km

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FIGURE 16
PEAK FLOOD DEPTHS
5% AEP EVENT

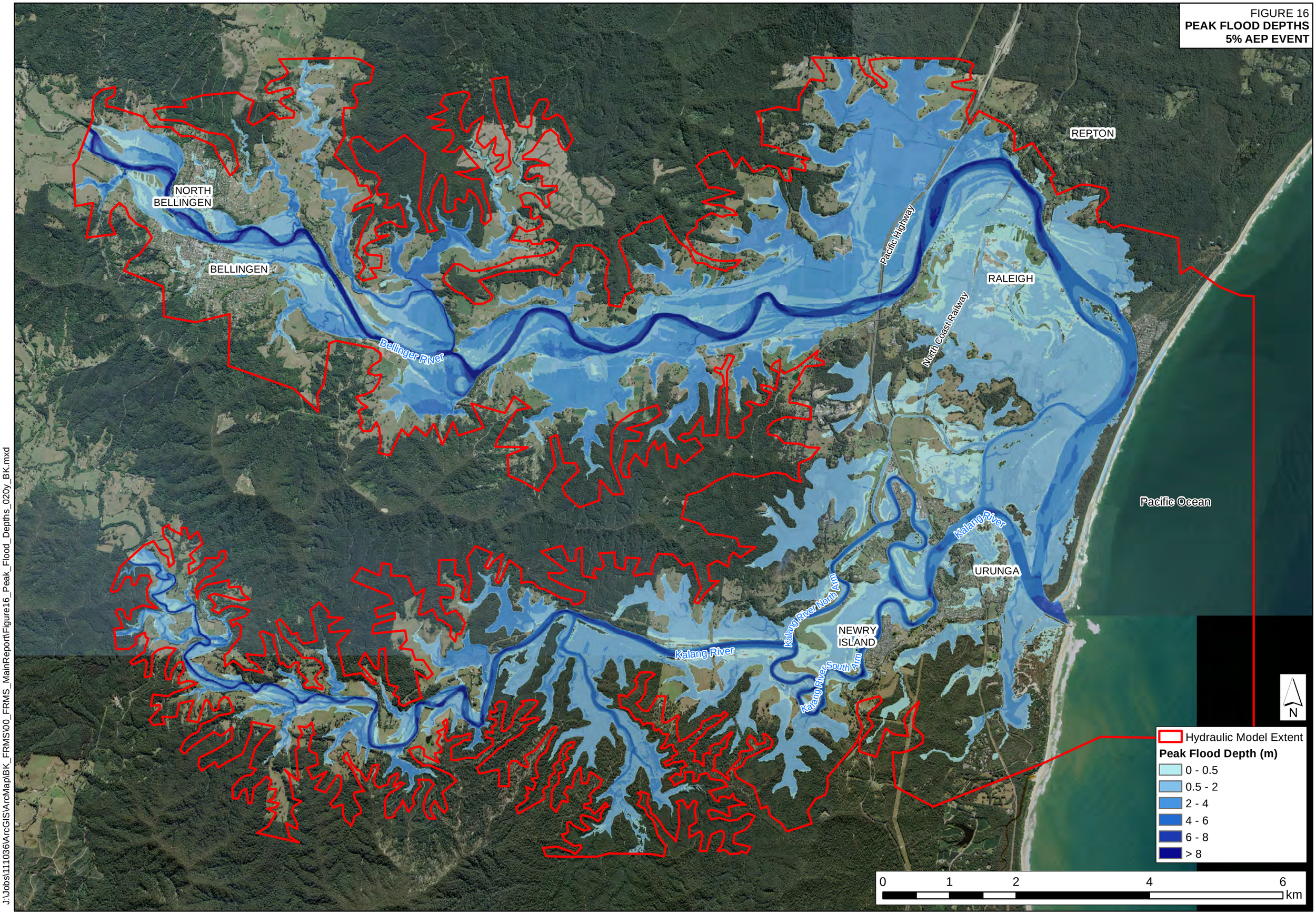

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FIGURE 17
PEAK FLOOD DEPTHS
5% AEP EVENT
BELLINGEN

Bellinger River
Sunset Ridge Dr
Kenny Cl
Elliot Cl
Wheatley St
Dowle St
Tamarind Dr
Lyon St
Casuarina Ave
Mccristal Dr
Jagera Dr
McNally St
NORTH BELLINGEN
Hammond St
Bellingen Showgrounds
Hydes Creek Rd
Frenchmans Creek
Jordan Rd
N Bank Rd
Hydes Creek
Coronation St
Robert St
William St
Hyde St
Bowra St
Church St
Ford St
Prince St
Waterfall Way
Cemetery Creek
Watson St
BELLINGEN

N

Hydraulic Model Extent
Peak Flood Depth (m)
0 - 0.5
0.5 - 2
2 - 4
4 - 6
6 - 8
> 8

0 0.125 0.25 0.5 0.75 km

J:\Jobs\111036\ArcGIS\ArcMap\BK_FRMS\00_FRMS_MainReport\Figure17_Peak_Flood_Depths_020y_Bellingen_BK.mxd

FIGURE 18
PEAK FLOOD DEPTHS
5% AEP EVENT
URUNGA

Yellow Rock Rd
Kalang River
Bellinger River
Newry Island Dr
The Grove
Ginagay Way
Bellingen St
Atherton Dr
Bowra St
Orara St
URUNGA
Pilot St E
Morgo St
South St E
Pilot St
High St
Ginagay Way
Hillside Dr
Hungry Head Rd
Urunga Lagoon
Kalang River North Arm
NEWRY ISLAND
Kalang River South Arm

N

Hydraulic Model Extent
Peak Flood Depth (m)
0 - 0.5
0.5 - 2
2 - 4
4 - 6
6 - 8
> 8

0 0.125 0.25 0.5 0.75
km

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FIGURE 19
PEAK FLOOD DEPTHS
1% AEP EVENT

NORTH BELLINGEN
BELLINGEN
Cemetery Creek
Bellinger River
REPTON
Pacific Highway
RALEIGH
North Coast Railway
Tuckers Island
Boggy Creek
Back Creek
Pacific Ocean
Kalang River North Arm
Kalang River
URUNGA
NEWRY ISLAND
Kalang River
Kalang River South Arm
Uranga Lagoon

N

Hydraulic Model Extent
Peak Flood Depth (m)
0 - 0.5
0.5 - 2
2 - 4
4 - 6
6 - 8
>8

0 1 2 4 6
km

J:\Jobs\111036\ArcGIS\ArcMap\BK_FRMS\00_FRMS_MainReport\Figure19_Peak_Flood_Depths_100y_BK.mxd

FIGURE 20
PEAK FLOOD DEPTHS
1% AEP EVENT
BELLINGEN

Bellinger River
Sunset Ridge Dr
Kenny Cl
Elliot Cl
Wheatley St
Dowle St
Tamarind Dr
Lyon St
Casuarina Ave
Mccristal Dr
Jagera Dr
McNally St
NORTH BELLINGEN
Hammond St
Bellingen Showgrounds
Hydes Creek Rd
Frenchmans Creek
Jordan Rd
N Bank Rd
Hydes Creek
Coronation St
Robert St
William St
Hyde St
Bowra St
Church St
Ford St
Prince St
Watson St
BELLINGEN
Waterfall Way
Cemetery Creek

N

Hydraulic Model Extent
Peak Flood Depth (m)
0 - 0.5
0.5 - 2
2 - 4
4 - 6
6 - 8
>8

0 0.125 0.25 0.5 0.75
km

J:\Jobs\111036\ArcGIS\ArcMap\BK_FRMS\00_FRMS_MainReport\Figure20_Peak_Flood_Depths_100y_Bellingen_BK.mxd

FIGURE 21
PEAK FLOOD DEPTHS
1% AEP EVENT
URUNGA

Yellow Rock Rd
Kalang River
Bellinger Ri
Newry Island Dr
Kalang River North Arm
Ginagay Way
Bellingen St
Atherton Dr
The Grove
Bowra St
URUNGA
Orara St
Pilot St E
Morgo St
South St E
Pilot St
High St
Ginagay Way
Hillside Dr
Hungry Head Rd
Urunga Lagoon
Kalang River North Arm
Kalang River
NEWRY ISLAND
Kalang River South Arm

N

Hydraulic Model Extent
Peak Flood Depth (m)
0 - 0.5
0.5 - 2
2 - 4
4 - 6
6 - 8
>8

0 0.125 0.25 0.5 0.75 km

J:\Jobs\111036\ArcGIS\ArcMap\BK_FRMS\00_FRMS_MainReport\Figure21_Peak_Flood_Depths_100y_Urunga_BK.mxd

FIGURE 22
PEAK FLOOD DEPTHS
0.2% AEP EVENT

NORTH BELLINGEN
BELLINGEN
Cemetery Creek
Bellinger River
REPTON
Pacific Highway
RALEIGH
North Coast Railway
Tuckers Island
Boggy Creek
Back Creek
Pacific Ocean
Kalang River North Arm
Kalang River
URUNGA
Kalang River South Arm
NEWRY ISLAND
Kalang River
Uranga Lagoon

N

Hydraulic Model Extent
Peak Flood Depth (m)
0 - 0.5
0.5 - 2
2 - 4
4 - 6
6 - 8
>8

0 1 2 4 6
km

J:\Jobs\111036\ArcGIS\ArcMap\BK_FRMS\00_FRMS_MainReport\Figure22_Peak_Flood_Depths_500y_BK.mxd

FIGURE 23
PEAK FLOOD DEPTHS
0.2% AEP EVENT
BELLINGEN

Bellinger River
Sunset Ridge Dr
Kenny Cl
Elliot Cl
Wheatley St
Dowle St
Tamarind Dr
Lyon St
Casuarina Ave
Mccristal Dr
Jagera Dr
McNally St
NORTH BELLINGEN
Hammond St
Bellingen Showgrounds
Hydes Creek Rd
Frenchmans Creek
N Bank Rd
Jordan Rd
Hydes Creek
Coronation St
Robert St
William St
Hyde St
Bowra St
Church St
Ford St
Prince St
Waterfall Way
Cemetery Creek
Watson St
BELLINGEN
N
Hydraulic Model Extent
Peak Flood Depth (m)
0 - 0.5
0.5 - 2
2 - 4
4 - 6
6 - 8
>8
0 0.125 0.25 0.5 0.75
km

J:\Jobs\111036\ArcGIS\ArcMap\BK_FRMS\00_FRMS_MainReport\Figure23_Peak_Flood_Depths_500y_Bellingen_BK.mxd

FIGURE 24
PEAK FLOOD DEPTHS
0.2% AEP EVENT
URUNGA

Yellow Rock Rd
Kalang River
Bellinger River
Newry Island Dr
Ginagay Way
Bellingen St
Atherton Dr
The Grove
Bowra St
Orara St
URUNGA
Pilot St E
Morgo St
South St
Kalang River North Arm
Pilot St
High St
Ginagay Way
Hillside Dr
Hungry Head Rd
Urunga Lagoon
NEWRY ISLAND
Kalang River South Arm

N

Hydraulic Model Extent
Peak Flood Depth (m)
0 - 0.5
0.5 - 2
2 - 4
4 - 6
6 - 8
>8

0 0.125 0.25 0.5 0.75 km

J:\Jobs\111036\ArcGIS\ArcMap\BK_FRMS\00_FRMS_MainReport\Figure24_Peak_Flood_Depths_500y_Urunga_BK.mxd

FIGURE 25
PEAK FLOOD DEPTHS
PMF EVENT

NORTH BELLINGEN
BELLINGEN
Cemetery Creek
Bellinger River
REPTON
Pacific Highway
RALEIGH
North Coast Railway
Tuckers Island
Boggy Creek
Back Creek
Pacific Ocean
Kalang River North Arm
Kalang River
URUNGA
Kalang River South Arm
NEWRY ISLAND
Kalang River
Urunga Lagoon

N

Hydraulic Model Extent
Peak Flood Depth (m)
0 - 0.5
0.5 - 2
2 - 4
4 - 6
6 - 8
>8

0 1 2 4 6
km

J:\Jobs\111036\ArcGIS\ArcMap\BK_FRMS\00_FRMS_MainReport\Figure25_Peak_Flood_Depths_PMF_BK.mxd

FIGURE 26
PEAK FLOOD DEPTHS
PMF EVENT
BELLINGEN

Bellinger River
Sunset Ridge Dr
Kenny Cl
Elliot Cl
Wheatley St
Dowle St
Tamarind Dr
Lyon St
Casuarina Ave
Mccristal Dr
Jagera Dr
McNally St
NORTH BELLINGEN
Hammond St
Bellingen Showgrounds
Hydes Creek Rd
Fleetchmans Creek
Jordan Rd
N Bank Rd
Hydes Creek
Coronation St
Robert St
William St
Hyde St
Bowra St
Church St
Ford St
Prince St
Waterfall Way
Cemetery Creek
Watson St
BELLINGEN

N

Hydraulic Model Extent
Peak Flood Depth (m)
0 - 0.5
0.5 - 2
2 - 4
4 - 6
6 - 8
>8

0 0.125 0.25 0.5 0.75
km

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FIGURE 27
PEAK FLOOD DEPTHS
PMF EVENT
URUNGA

Yellow Rock Rd
Kalang River
Bellinger River
Newry Island Dr
Ginagay Way
Bellingen St
Atherton Dr
The Grove
Bowra St
Orara St
URUNGA
Pilot St E
Morgo St
South St E
Kalang River North Arm
Pilot St
High St
Ginagay Way
Hillside Dr
Hungry Head Rd
Urunga Lagoon
NEWRY ISLAND
Kalang River South Arm

N

Hydraulic Model Extent
Peak Flood Depth (m)
0 - 0.5
0.5 - 2
2 - 4
4 - 6
6 - 8
>8

0 0.125 0.25 0.5 0.75
km

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FIGURE 28
PEAK FLOOD LEVELS
5Y ARI EVENT

NORTH BELLINGEN
BELLINGEN
Cemetery Creek
Bellinger River
REPTON
Pacific Highway
RALEIGH
North Coast Railway
Tuckers Island
Boggy Creek
Back Creek
Pacific Ocean
Kalang River North Arm
Kalang River
URUNGA
NEWRY ISLAND
Kalang River South Arm
Kalang River
Urunga Lagoon

N

Hydraulic Model Extent
Peak Flood Level (m AHD)
< 3.0
3.0 - 4.0
4.0 - 5.0
5.0 - 6.0
6.0 - 7.0
7.0 - 8.0
8.0 - 9.0
9.0 - 10.0
> 10.0

0 1 2 4 6
km

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FIGURE 29
PEAK FLOOD LEVELS
5Y ARI EVENT
BELLINGEN

Bellinger River
Sunset Ridge Dr
Kenny Cl
Elliot Cl
Wheatley St
Dowle St
Tamarind Dr
Lyon St
Casuarina Ave
Mccristal Dr
Jagera Dr
McNally St
NORTH BELLINGEN
Hammond St
Bellingen Showgrounds
Coronation St
Robert St
William St
Hyde St
Bowra St
Church St
Ford St
Prince St
Watson St
BELLINGEN
Hydes Creek Rd
Frenchmans Creek
Jordan Rd
N Bank Rd
Hydes Creek
Waterfall Way
Cemetery Creek

N

Hydraulic Model Extent
Peak Flood Level (m AHD)
< 7.0
7.0 - 8.0
8.0 - 10.0
10.0 - 12.0
12.0 - 14.0
14.0 - 16.0
16.0 - 17.0
17.0 -18.0
> 18.0

0 0.125 0.25 0.5 0.75 km

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FIGURE 30
PEAK FLOOD LEVELS
5Y ARI EVENT
URUNGA

Yellow Rock Rd
Kalang River
Bellinger Ri
Newry Island Dr
Ginagay Way
Bellingen St
Atherton Dr
The Grove
Bowra St
Orara St
URUNGA
Pilot St E
Morgo St
South St E
Kalang River North Arm
Pilot St
High St
Ginagay Way
Hillside Dr
Hungry Head Rd
Urunga Lagoon
NEWRY ISLAND
Kalang River South Arm

N

Hydraulic Model Extent
Peak Flood Level (m AHD)
< 2.0
2.0 - 3.0
3.0 - 4.0
4.0 - 5.0
5.0 - 6.0
6.0 - 7.0
7.0 - 8.0
8.0 - 9.0
> 9.0

0 0.125 0.25 0.5 0.75
km

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FIGURE 31
PEAK FLOOD LEVELS
5% AEP EVENT

NORTH BELLINGEN
BELLINGEN
Cemetery Creek
Bellinger River
REPTON
Pacific Highway
RALEIGH
North Coast Railway
Tuckers Island
Boggy Creek
Back Creek
Pacific Ocean
Kalang River North Arm
Kalang River
URUNGA
Kalang River South Arm
NEWRY ISLAND
Kalang River
Urunga Lagoon

N

Hydraulic Model Extent
Peak Flood Level (m AHD)
< 3.0
3.0 - 4.0
4.0 - 5.0
5.0 - 6.0
6.0 - 7.0
7.0 - 8.0
8.0 - 9.0
9.0 - 10.0
> 10.0

0 1 2 4 6
km

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FIGURE 32
PEAK FLOOD LEVELS
5% AEP EVENT
BELLINGEN

Bellinger River
Sunset Ridge Dr
Kenny Cl
Elliot Cl
Wheatley St
Dowle St
Tamarind Dr
Lyon St
Casuarina Ave
Mccristal Dr
Jagera Dr
McNally St
NORTH BELLINGEN
Hammond St
Bellingen Showgrounds
Hydes Creek Rd
Friendchmans Creek
Jordan Rd
N Bank Rd
Hydes Creek
Coronation St
Robert St
William St
Hyde St
Bowra St
Church St
Ford St
Prince St
Waterfall Way
Cemetery Creek
BELLINGEN
Watson St
N
Hydraulic Model Extent
Peak Flood Level (m AHD)
< 7.0
7.0 - 8.0
8.0 - 10.0
10.0 - 12.0
12.0 - 14.0
14.0 - 16.0
16.0 - 17.0
17.0 -18.0
> 18.0
0 0.125 0.25 0.5 0.75 km

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FIGURE 33
PEAK FLOOD LEVELS
5% AEP EVENT
URUNGA

Yellow Rock Rd
Kalang River
Bellinger River
Newry Island Dr
The Grove
Ginagay Way
Bellingen St
Atherton Dr
Bowra St
Orara St
URUNGA
Pilot St E
Morgo St
South St E
Pilot St
High St
Hillside Dr
Ginagay Way
Hungry Head Rd
Urunga Lagoon
Kalang River North Arm
NEWRY ISLAND
Kalang River South Arm

N

Hydraulic Model Extent
Peak Flood Level (m AHD)
< 2.0
2.0 - 3.0
3.0 - 4.0
4.0 - 5.0
5.0 - 6.0
6.0 - 7.0
7.0 - 8.0
8.0 - 9.0
> 9.0

0 0.125 0.25 0.5 0.75 km

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FIGURE 34
PEAK FLOOD LEVELS
1% AEP EVENT

NORTH BELLINGEN
BELLINGEN
Cemetery Creek
Bellinger River
REPTON
Pacific Highway
RALEIGH
North Coast Railway
Tuckers Island
Boggy Creek
Back Creek
Pacific Ocean
Kalang River
URUNGA
Kalang River North Arm
NEWRY ISLAND
Kalang River
Kalang River South Arm
Urunga Lagoon

N

Hydraulic Model Extent
Peak Flood Level (m AHD)
< 3.0
3.0 - 4.0
4.0 - 5.0
5.0 - 6.0
6.0 - 7.0
7.0 - 8.0
8.0 - 9.0
9.0 - 10.0
> 10.0

0 1 2 4 6
km

J:\Jobs\111036\ArcGIS\ArcMap\BK_FRMS\00_FRMS_MainReport\Figure34_Peak_Flood_Levels_100y_BK.mxd

FIGURE 35
PEAK FLOOD LEVELS
1% AEP EVENT
BELLINGEN

Bellinger River
Sunset Ridge Dr
Kenny Cl
Elliot Cl
Wheatley St
Dowle St
Tamarind Dr
Lyon St
Casuarina Ave
Mccristal Dr
Jagera Dr
McNally St
NORTH BELLINGEN
Hammond St
Bellingen Showgrounds
Hydes Creek Rd
Frenchmans Creek
Jordan Rd
N Bank Rd
Hydes Creek
Coronation St
Robert St
William St
Hyde St
Bowra St
Church St
Ford St
Prince St
Waterfall Way
Cemetery Creek
Watson St
BELLINGEN

N

Hydraulic Model Extent
Peak Flood Level (m AHD)
< 7.0
7.0 - 8.0
8.0 - 10.0
10.0 - 12.0
12.0 - 14.0
14.0 - 16.0
16.0 - 17.0
17.0 -18.0
> 18.0

0 0.125 0.25 0.5 0.75
km

J:\Jobs\111036\ArcGIS\ArcMap\BK_FRMS\00_FRMS_MainReport\Figure35_Peak_Flood_Levels_100y_Bellingen_BK.mxd

FIGURE 36
PEAK FLOOD LEVELS
1% AEP EVENT
URUNGA

Yellow Rock Rd
Kalang River
Bellinger Ri
Newry Island Dr
The Grove
Ginagay Way
Bellingen St
Atherton Dr
Bowra St
Orara St
URUNGA
Pilot St E
Morgo St
South St
Kalang River North Arm
Pilot St
High St
Ginagay Way
Hillside Dr
Hungry Head Rd
Urunga Lagoon
NEWRY ISLAND
Kalang River South Arm

N

Hydraulic Model Extent
Peak Flood Level (m AHD)
< 2.0
2.0 - 3.0
3.0 - 4.0
4.0 - 5.0
5.0 - 6.0
6.0 - 7.0
7.0 - 8.0
8.0 - 9.0
> 9.0

0 0.125 0.25 0.5 0.75
km

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FIGURE 37
PEAK FLOOD LEVELS
0.2% AEP EVENT

NORTH BELLINGEN
BELLINGEN
Cemetery Creek
Bellinger River
REPTON
Pacific Highway
RALEIGH
North Coast Railway
Tuckers Island
Boggy Creek
Back Creek
Pacific Ocean
Kalang River North Arm
Kalang River
URUNGA
Kalang River South Arm
NEWRY ISLAND
Kalang River
Urunga Lagoon

N

Hydraulic Model Extent
Peak Flood Level (m AHD)
< 3.0
3.0 - 4.0
4.0 - 5.0
5.0 - 6.0
6.0 - 7.0
7.0 - 8.0
8.0 - 9.0
9.0 - 10.0
> 10.0

0 1 2 4 6
km

J:\Jobs\111036\ArcGIS\ArcMap\BK_FRMS\00_FRMS_MainReport\Figure37_Peak_Flood_Levels_500y_BK.mxd

FIGURE 38
PEAK FLOOD LEVELS
0.2% AEP EVENT
BELLINGEN

Bellinger River
Sunset Ridge Dr
Kenny Cl
Elliot Cl
Wheatley St
Dowle St
Tamarind Dr
Lyon St
Casuarina Ave
Mccristal Dr
Jagera Dr
McNally St
NORTH BELLINGEN
Hammond St
Bellingen Showgrounds
Hydes Creek Rd
Frenchmans Creek
Jordan Rd
N Bank Rd
Hydes Creek
Coronation St
Robert St
William St
Hyde St
Bowra St
Church St
Ford St
Prince St
Waterfall Way
Cemetery Creek
Watson St
BELLINGEN

N

Hydraulic Model Extent
Peak Flood Level (m AHD)
< 7.0
7.0 - 8.0
8.0 - 10.0
10.0 - 12.0
12.0 - 14.0
14.0 - 16.0
16.0 - 17.0
17.0 -18.0
> 18.0

0 0.125 0.25 0.5 0.75
km

J:\Jobs\111036\ArcGIS\ArcMap\BK_FRMS\00_FRMS_MainReport\Figure38_Peak_Flood_Levels_500y_Bellingen_BK.mxd

FIGURE 39
PEAK FLOOD LEVELS
0.2% AEP EVENT
URUNGA

Yellow Rock Rd
Kalang River
Bellinger River
Newry Island Dr
Ginagay Way
Bellingen St
Atherton Dr
The Grove
Bowra St
Orara St
URUNGA
Pilot St E
Morgo St
South St E
Kalang River North Arm
Pilot St
High St
Ginagay Way
Hillside Dr
Hungry Head Rd
Urunga Lagoon
NEWRY ISLAND
Kalang River South Arm

N

Hydraulic Model Extent

Peak Flood Level (m AHD)

- < 2.0
- 2.0 - 3.0
- 3.0 - 4.0
- 4.0 - 5.0
- 5.0 - 6.0
- 6.0 - 7.0
- 7.0 - 8.0
- 8.0 - 9.0
- > 9.0

0 0.125 0.25 0.5 0.75 km

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FIGURE 40
PEAK FLOOD LEVELS
PMF EVENT

NORTH BELLINGEN
BELLINGEN
Cemetery Creek
Bellinger River
REPTON
Pacific Highway
RALEIGH
North Coast Railway
Tuckers Island
Boggy Creek
Back Creek
Pacific Ocean
Kalang River North Arm
Kalang River
URUNGA
Kalang River South Arm
NEWRY ISLAND
Kalang River
Uranga Lagoon

N

Hydraulic Model Extent
Peak Flood Level (m AHD)
< 7.0
7.0 - 8.0
8.0 - 10.0
10.0 - 12.0
12.0 - 14.0
14.0 - 16.0
16.0 - 17.0
17.0 -18.0
> 18.0

0 1 2 4 6 km

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FIGURE 41
PEAK FLOOD LEVELS
PMF EVENT
BELLINGEN

Bellinger River
Sunset Ridge Dr
Kenny Cl
Elliot Cl
Wheatley St
Dowle St
Tamarind Dr
Lyon St
Casuarina Ave
Mccristal Dr
Jagera Dr
McNally St
NORTH BELLINGEN
Hammond St
Bellingen Showgrounds
Hydes Creek Rd
Frenchmans Creek
Jordan Rd
N Bank Rd
Hydes Creek
Coronation St
Robert St
William St
Hyde St
Bowra St
Church St
Ford St
Prince St
Watson St
BELLINGEN
Waterfall Way
Cemetery Creek

N

Hydraulic Model Extent
Peak Flood Level (m AHD)
< 7.0
7.0 - 8.0
8.0 - 10.0
10.0 - 12.0
12.0 - 14.0
14.0 - 16.0
16.0 - 17.0
17.0 -18.0
> 18.0

0 0.125 0.25 0.5 0.75
km

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FIGURE 42
PEAK FLOOD LEVELS
PMF EVENT
URUNGA

Yellow Rock Rd
Kalang River
Bellinger River
Newry Island Dr
Ginagay Way
Bellingen St
Atherton Dr
The Grove
Bowra St
Orara St
URUNGA
Pilot St E
Morgo St
South St E
Kalang River North Arm
Pilot St
High St
Ginagay Way
Hillside Dr
Hungry Head Rd
Urunga Lagoon
NEWRY ISLAND
Kalang River South Arm

N

Hydraulic Model Extent
Peak Flood Level (m AHD)
< 2.0
2.0 - 3.0
3.0 - 4.0
4.0 - 5.0
5.0 - 6.0
6.0 - 7.0
7.0 - 8.0
8.0 - 9.0
> 9.0

0 0.125 0.25 0.5 0.75 km

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FIGURE 43
HYDRAULIC HAZARD
5% AEP EVENT

NORTH BELLINGEN
BELLINGEN
Cemetery Creek
Bellinger River
REPTON
Pacific Highway
RALEIGH
North Coast Railway
Boggy Creek
Back Creek
Pacific Ocean
Kalang River North Arm
Kalang River
URUNGA
Kalang River South Arm
NEWRY ISLAND
Kalang River
Uranga Lagoon

N

Hydraulic Model Extent

Hazard

- H1 - Generally safe for people, vehicles and buildings
- H2 - Unsafe for small
- H3 - Unsafe for vehicles, children and the elderly
- H4 - Unsafe for people and vehicles.
- H5 - Unsafe for vehicles and people. All buildings vulnerable to structural damage. Some less robust building types vulnerable to failure.
- H6 - Unsafe for vehicles and people. All building types considered vulnerable to failure.

0 1 2 4 6 km

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FIGURE 44
HYDRAULIC HAZARD
5% AEP EVENT
BELLINGEN

Bellinger River
Sunset Ridge Dr
Kenny Cl
Elliot Cl
Wheatley St
Dowle St
Tamarind Dr
Lyon St
Casuarina Ave
Mccristal Dr
Jagera Dr
McNally St
NORTH BELLINGEN
Hammond St
Bellingen Showgrounds
Hydes Creek Rd
Frenchmans Creek
Jordan Rd
N Bank Rd
Hydes Creek
Coronation St
Robert St
William St
Hyde St
Bowra St
Church St
Ford St
Prince St
Waterfall Way
Cemetery Creek
Watson St
BELLINGEN
N

Hydraulic Model

Hazard

- H1 - Generally safe for people, vehicles and buildings
- H2 - Unsafe for small
- H3 - Unsafe for vehicles, children and the elderly
- H4 - Unsafe for people and vehicles.
- H5 - Unsafe for vehicles and people. All buildings vulnerable to structural damage. Some less robust building types vulnerable to failure.
- H6 - Unsafe for vehicles and people. All building types considered vulnerable to failure.

0 0.125 0.25 0.5 0.75 km

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FIGURE 45
HYDRAULIC HAZARD
5% AEP EVENT
URUNGA

Yellow Rock Rd
Kalang River
Bellinger River
Newry Island Dr
The Grove
Ginagay Way
Bellingen St
Atherton Dr
Bowra St
Orara St
URUNGA
Pilot St E
South St
Morgo St
Kalang River North Arm
Pilot St
High St
Ginagay Way
Hillside Dr
Hungry Head Rd
Urunga Lagoon
NEWRY ISLAND
Kalang River South Arm

N

Hydraulic Model Extent

Hazard

- H1 - Generally safe for people, vehicles and buildings
- H2 - Unsafe for small vehicles
- H3 - Unsafe for vehicles, children and the elderly
- H4 - Unsafe for people and vehicles.
- H5 - Unsafe for vehicles and people. All buildings vulnerable to structural damage. Some less robust building types vulnerable to failure.
- H6 - Unsafe for vehicles and people. All building types considered vulnerable to failure.

0 0.125 0.25 0.5 0.75 km

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FIGURE 46
HYDRAULIC HAZARD
1% AEP EVENT

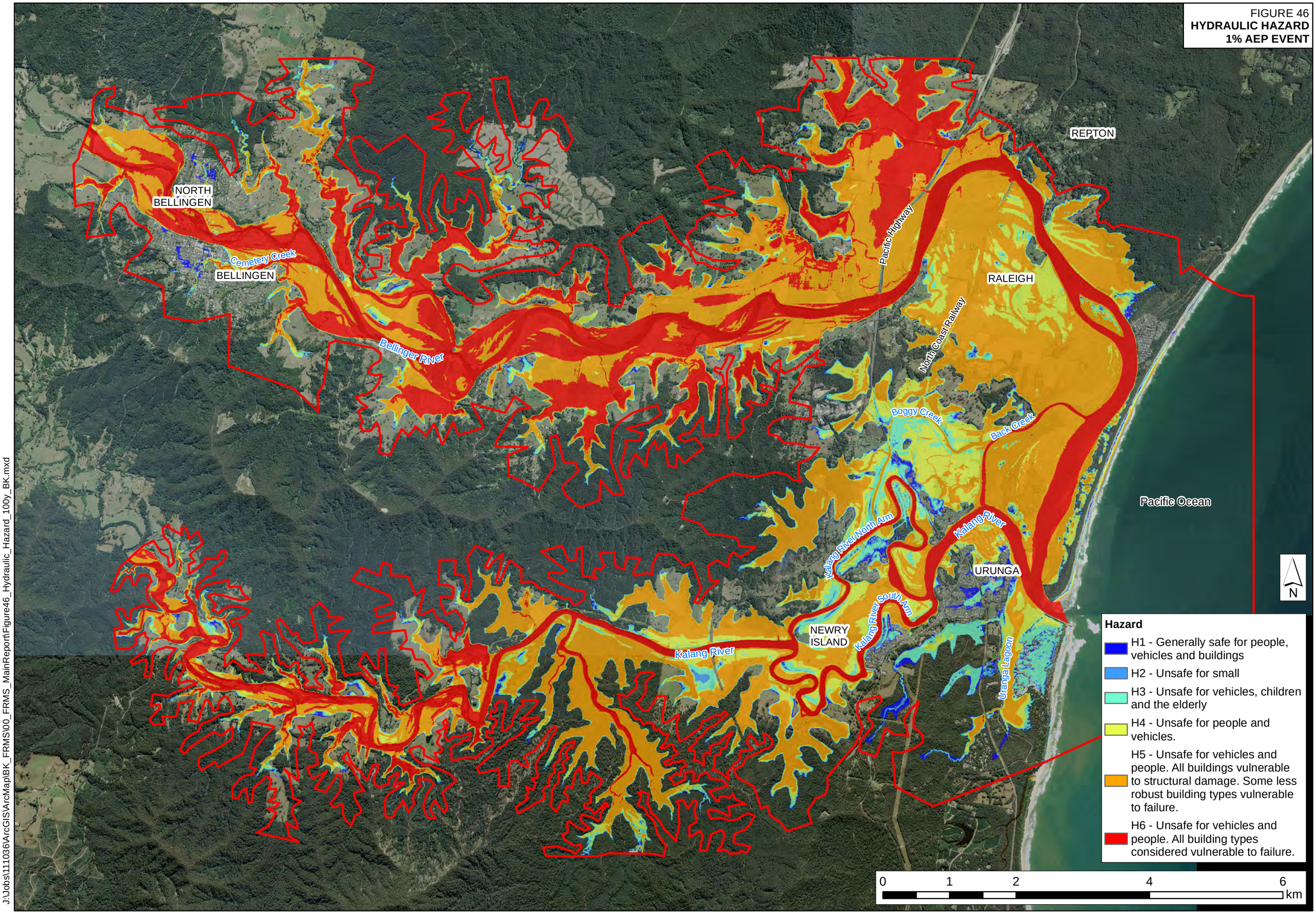

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FIGURE 47
HYDRAULIC HAZARD
1% AEP EVENT
BELLINGEN

Bellinger River
Sunset Ridge Dr
Kenny Cl
Elliot Cl
Wheatley St
Dowle St
Tamarind Dr
Lyon St
Casuarina Ave
Mccristal Dr
Jagera Dr
McNally St
NORTH BELLINGEN
Hammond St
Bellingen Showgrounds
Hydes Creek Rd
Frenchmans Creek
N Bank Rd
Jordan Rd
Hydes Creek
Coronation St
Robert St
William St
Hyde St
Bowra St
Church St
Ford St
Prince St
Waterfall Way
Cemetery Creek
Watson St
BELLINGEN
N

Hydraulic Model Extent

Hazard

- H1 - Generally safe for people, vehicles and buildings
- H2 - Unsafe for small vehicles
- H3 - Unsafe for vehicles, children and the elderly
- H4 - Unsafe for people and vehicles.
- H5 - Unsafe for vehicles and people. All buildings vulnerable to structural damage. Some less robust building types vulnerable to failure.
- H6 - Unsafe for vehicles and people. All building types considered vulnerable to failure.

0 0.125 0.25 0.5 0.75 km

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FIGURE 48
HYDRAULIC HAZARD
1% AEP EVENT
URUNGA

Yellow Rock Rd
Kalang River
Bellinger River
Newry Island Dr
The Grove
Ginagay Way
Bellingen St
Atherton Dr
Bowra St
Orara St
URUNGA
Pilot St E
Morgo St
South St E
Pilot St
High St
Ginagay Way
Hillside Dr
Hungry Head Rd
Urunga Lagoon
Kalang River North Arm
NEWRY ISLAND
Kalang River South Arm

N

Hydraulic Model Extent

Hazard

- H1 - Generally safe for people, vehicles and buildings
- H2 - Unsafe for small vehicles
- H3 - Unsafe for vehicles, children and the elderly
- H4 - Unsafe for people and vehicles.
- H5 - Unsafe for vehicles and people. All buildings vulnerable to structural damage. Some less robust building types vulnerable to failure.
- H6 - Unsafe for vehicles and people. All building types considered vulnerable to failure.

0 0.125 0.25 0.5 0.75
km

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FIGURE 49
HYDRAULIC HAZARD
PMF EVENT

NORTH BELLINGEN
BELLINGEN
REPTON
RALEIGH
Tuckers Island
NEWRY ISLAND
URUNGA
Pacific Ocean
Cemetery Creek
Bellinger River
Pacific Highway
North Coast Railway
Boggy Creek
Back Creek
Kalang River
Kalang River North Arm
Kalang River South Arm
Urunga Lagoon

N

Hydraulic Model Extent

Hazard

- H1 - Generally safe for people, vehicles and buildings
- H2 - Unsafe for small
- H3 - Unsafe for vehicles, children and the elderly
- H4 - Unsafe for people and vehicles.
- H5 - Unsafe for vehicles and people. All buildings vulnerable to structural damage. Some less robust building types vulnerable to failure.
- H6 - Unsafe for vehicles and people. All building types considered vulnerable to failure.

0 1 2 4 6 km

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FIGURE 50
HYDRAULIC HAZARD
PMF EVENT
BELLINGEN

Bellinger River
Sunset Ridge Dr
Kenny Cl
Elliot Cl
Wheatley St
Dowle St
Tamarind Dr
Lyon St
Casuarina Ave
Mccristal Dr
Jagera Dr
McNally St
NORTH BELLINGEN
Hammond St
Bellingen Showgrounds
Hydes Creek Rd
Frenchmans Creek
N Bank Rd
Jordan Rd
Hydes Creek
Coronation St
Robert St
William St
Hyde St
Bowra St
Church St
Ford St
Prince St
Watson St
BELLINGEN
Waterfall Way
Cemetery Creek

N

Hydraulic Model

Hazard

- H1 - Generally safe for people, vehicles and buildings
- H2 - Unsafe for small
- H3 - Unsafe for vehicles, children and the elderly
- H4 - Unsafe for people and vehicles.
- H5 - Unsafe for vehicles and people. All buildings vulnerable to structural damage. Some less robust building types vulnerable to failure.
- H6 - Unsafe for vehicles and people. All building types considered vulnerable to failure.

0 0.125 0.25 0.5 0.75 km

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FIGURE 51
HYDRAULIC HAZARD
PMF EVENT
URUNGA

Yellow Rock Rd
Kalang River
Bellinger River
Newry Island Dr
Ginagay Way
Bellingen St
Atherton Dr
The Grove
Bowra St
Orara St
URUNGA
Pilot St E
Morgo St
South St E
Kalang River North Arm
Pilot St
High St
Ginagay Way
Hillside Dr
Hungry Head Rd
Urunga Lagoon
NEWRY ISLAND
Kalang River South Arm
N

Hydraulic Model Extent

Hazard

- H1 - Generally safe for people, vehicles and buildings
- H2 - Unsafe for small vehicles
- H3 - Unsafe for vehicles, children and the elderly
- H4 - Unsafe for people and vehicles.
- H5 - Unsafe for vehicles and people. All buildings vulnerable to structural damage. Some less robust building types vulnerable to failure.
- H6 - Unsafe for vehicles and people. All building types considered vulnerable to failure.

0 0.125 0.25 0.5 0.75 km

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FIGURE 52
HYDRAULIC CATEGORISATION
5% AEP EVENT

NORTH BELLINGEN
BELLINGEN
Cemetery Creek
Bellinger River
REPTON
Pacific Highway
RALEIGH
North Coast Railway
Tuckers Island
Boggy Creek
Back Creek
Pacific Ocean
Kalang River North Arm
Kalang River
Kalang River South Arm
URUNGA
NEWRY ISLAND
Kalang River
Urunga Lagoon

N

Hydraulic Model Extent
Hydraulic Categorisation
Floodway
Flood Storage
Flood Fringe

0 1 2 4 6
km

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FIGURE 53
HYDRAULIC CATEGORISATION
1% AEP EVENT

NORTH BELLINGEN
BELLINGEN
Cemetery Creek
Bellinger River
REPTON
Pacific Highway
RALEIGH
North Coast Railway
Tuckers Island
Boggy Creek
Back Creek
Pacific Ocean
Kalang River North Arm
Kalang River
URUNGA
Kalang River South Arm
NEWRY ISLAND
Kalang River
Urunga Lagoon

N

Hydraulic Model Extent
Hydraulic Categorisation
Floodway
Flood Storage
Flood Fringe

0 1 2 4 6 km

J:\Jobs\111036\ArcGIS\ArcMap\BK_FRMS\00_FRMS_MainReport\Figure53_Hydraulic_Categorisation_100y_BK.mxd

FIGURE 54
HYDRAULIC CATEGORISATION
PMF EVENT

NORTH BELLINGEN
BELLINGEN
Cemetery Creek
Bellinger River
REPTON
Pacific Highway
RALEIGH
North Coast Railway
Tuckers Island
Boggy Creek
Back Creek
Pacific Ocean
Kalang River North Arm
Kalang River
URUNGA
Kalang River South Arm
NEWRY ISLAND
Kalang River
Urunga Lagoon

N

Hydraulic Model Extent
Hydraulic Categorisation
Floodway
Flood Storage
Flood Fringe

0 1 2 4 6
km

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FIGURE 55
EMERGENCY RESPONSE CLASSIFICATION

NORTH BELLINGEN
BELLINGEN
Cemetery Creek
Bellinger River
REPTON
Pacific Highway
RALEIGH
North Coast Railway
Tuckers Island
Boggy Creek
Back Creek
Pacific Ocean
Kalang River North Arm
Kalang River
URUNGA
NEWRY ISLAND
Kalang River South Arm
Kalang River
Uranga Lagoon

N

Hydraulic Model Extent

Emergency Response Classifications

- Submerged Isolated Area (FIS)
- Elevated Isolated Area (FIE)
- Overland Escape Route (FEO)
- Rising Road Egress (FER)
- Indirect Consequence (IC)

0 1 2 4 6 km

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FIGURE 56
FLOOD PLANNING CONSTRAINT CATEGORISATION (FPCC)
1% AEP EVENT

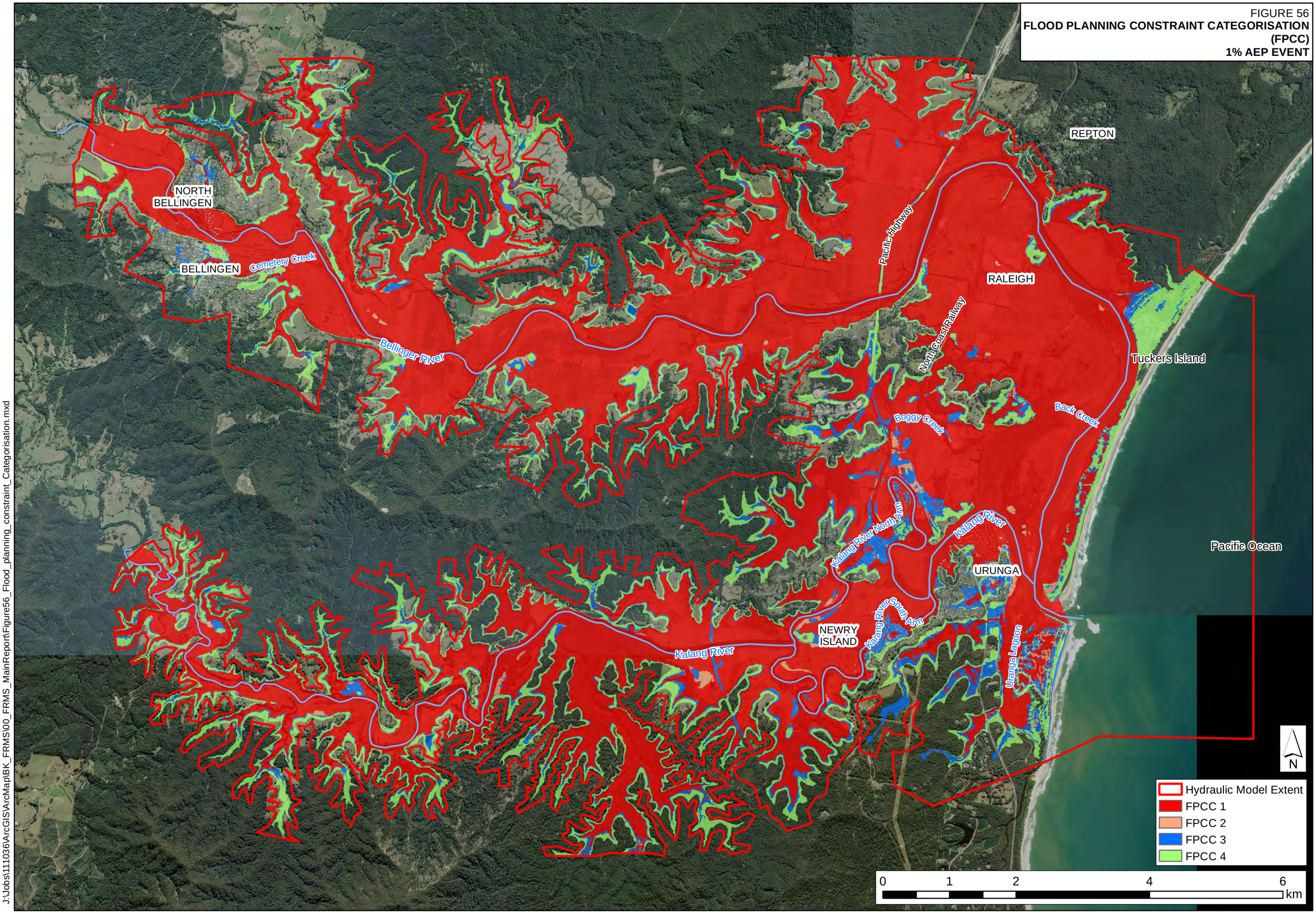

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FIGURE 57
FLOOD PLANNING CONSTRAINT CATEGORISATION (FPCC)
1% AEP EVENT
BELLINGEN

Bellinger River
Sunset Ridge Dr
Kenny Cl
Elliot Cl
Tamarind Dr
Lyon St
Casuarina Ave
Wheatley St
Dowle St
Mccristal Dr
Jagera Dr
McNally St
NORTH BELLINGEN
Hammond St
Bellingen Showgrounds
Hydes Creek Rd
Frenchmans Creek
Jordan Rd
N Bank Rd
Hydes Creek
Coronation St
Robert St
William St
Hyde St
Bowra St
Church St
Ford St
Prince St
Waterfall Way
Cemetery Creek
Watson St
BELLINGEN
N
Cadastre
Hydraulic Model Extent
FPCC 1
FPCC 2
FPCC 3
FPCC 4
0 0.125 0.25 0.5 0.75
km

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FIGURE 58
FLOOD PLANNING CONSTRAINT CATEGORISATION (FPCC)
1% AEP EVENT
URUNGA

Yellow Rock Rd
Kalang River
Newry Island Dr
The Grove
Ginagay Way
Bellingen St
Atherton Dr
Bowra St
Orara St
URUNGA
Pilot St E
Morgo St
South St E
Pilot St
High St
Ginagay Way
Hillside Dr
Hungry Head Rd
Urunga Lagoon
Kalang River North Arm
NEWRY ISLAND
Kalang River South Arm

N

Cadastre
Hydraulic Model Extent
FPCC 1
FPCC 2
FPCC 3
FPCC 4

0 0.125 0.25 0.5 0.75
km

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FIGURE 59
FLOOD PLANNING LEVEL
1% AEP EVENT + 0.5M

NORTH BELLINGEN
BELLINGEN
Cemetery Creek
Bellinger River
REPTON
Pacific Highway
RALEIGH
North Coast Railway
Tuckers Island
Boggy Creek
Back Creek
Pacific Ocean
Kalang River North Arm
Kalang River
URUNGA
NEWRY ISLAND
Kalang River South Arm
Kalang River
Urunga Lagoon

N

Hydraulic Model Extent
Flood Planning Level (m AHD)
High : 15
Low : 2

0 1 2 4 6
km

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FIGURE 60
FLOOD PLANNING LEVEL
1% AEP EVENT + 0.5M
BELLINGEN

Bellinger River
Sunset Ridge Dr
Kenny Cl
Elliot Cl
Wheatley St
Dowle St
Tamarind Dr
Lyon St
Casuarina Ave
Mccristal Dr
Jagera Dr
McNally St
NORTH BELLINGEN
Hammond St
Bellingen Showgrounds
Hydes Creek Rd
Frenchmans Creek
Jordan Rd
N Bank Rd
Hydes Creek
Coronation St
Robert St
William St
Hyde St
Bowra St
Church St
Ford St
Prince St
Watson St
BELLINGEN
Waterfall Way
Cemetery Creek

N

Hydraulic Model Extent
Flood Planning Level (m AHD)
High : 20
Low : 10

0 0.125 0.25 0.5 0.75
km

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FIGURE 61
FLOOD PLANNING LEVEL
1% AEP EVENT + 0.5M
URUNGA

Yellow Rock Rd
Kalang River
Newry Island Dr
The Grove
Ginagay Way
Bellingen St
Atherton Dr
Bowra St
Orara St
URUNGA
Pilot St E
Morgo St
South St E
Pilot St
High St
Ginagay Way
Hillside Dr
Hungry Head Rd
Urunga Lagoon
Kalang River North Arm
NEWRY ISLAND
Kalang River South Arm

N

Hydraulic Model Extent
Flood Planning Level (m AHD)
High : 10
Low : 2

0 0.125 0.25 0.5 0.75 km

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FIGURE 62
SENSITIVITIY ANALYSIS
PEAK FLOOD LEVEL IMPACT
1% AEP EVENT
10% RAINFALL INCREASE

NORTH BELLINGEN
BELLINGEN
Cemetery Creek
Bellinger River
Pacific Highway
REPTON
RALEIGH
North Coast Railway
Tuckers Island
Boggy Creek
Back Creek
Pacific Ocean
Kalang River North Arm
Kalang River
URUNGA
Kalang River South Arm
NEWRY ISLAND
Kalang River
Uranga Lagoon

N

Hydraulic Model Extent
Impact (m)
< - 0.3
-0.3 - -0.2
-0.2 - -0.1
Minimal Impact
0.1 - 0.2
0.2 - 0.3
0.3 - 0.4
0.4 - 0.5
> 0.5
No Longer Flooded
Newly Flooded

0 1 2 4 6 km

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FIGURE 63
SENSITIVITIY ANALYSIS
PEAK FLOOD LEVEL IMPACT
1% AEP EVENT
10% RAINFALL INCREASE
BELLINGEN

Bellinger River
Sunset Ridge Dr
Kenny Cl
Elliot Cl
Tamarind Dr
Lyon St
Casuarina Ave
Wheatley St
Dowle St
Mccristal Dr
Jagera Dr
McNally St
Hydes Creek Rd
Frenchmans Creek
Jordan Rd
N Bank Rd
Hydes Creek
NORTH BELLINGEN
Bellingen Showgrounds
Coronation St
Robert St
William St
Hyde St
Bowra St
Church St
Ford St
Prince St
BELLINGEN
Waterfall Way
Cemetery Creek

N

Hydraulic Model Extent
Impact (m)
< - 0.3
-0.3 - -0.2
-0.2 - -0.1
Minimal Impact
0.1 - 0.2
0.2 - 0.3
0.3 - 0.4
0.4 - 0.5
> 0.5
No Longer Flooded
Newly Flooded

0 0.125 0.25 0.5 0.75
km

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FIGURE 64
SENSITIVITIY ANALYSIS
PEAK FLOOD LEVEL IMPACT
1% AEP EVENT
10% RAINFALL INCREASE
URUNGA

Yellow Rock Rd
Kalang River
Atherton Dr
Newry Island Dr
Ginagay Way
Bellingen St
The Grove
Bowra St
Orara St
URUNGA
Pilot St E
Morgo St
South St
Kalang River North Arm
Pilot St
High St
Ginagay Way
Hillside Dr
Hungry Head Rd
Urunga Lagoon
NEWRY ISLAND
Kalang River South Arm

N

Hydraulic Model Extent
Impact (m)
< - 0.3
-0.3 - -0.2
-0.2 - -0.1
Minimal Impact
0.1 - 0.2
0.2 - 0.3
0.3 - 0.4
0.4 - 0.5
> 0.5
No Longer Flooded
Newly Flooded

0 0.125 0.25 0.5 0.75
km

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FIGURE 65
SENSITIVITIY ANALYSIS
PEAK FLOOD LEVEL IMPACT
1% AEP EVENT
400MM SEA LEVEL RISE

NORTH BELLINGEN
BELLINGEN
Cemetery Creek
Bellinger River
REPTON
Pacific Highway
RALEIGH
North Coast Railway
Boggy Creek
Back Creek
Pacific Ocean
Kalang River North Arm
Kalang River
URUNGA
Kalang River South Arm
NEWRY ISLAND
Kalang River
Uranga Lagoon

N

Hydraulic Model Extent
Impact (m)
< - 0.3
-0.3 - -0.2
-0.2 - -0.1
Minimal Impact
0.1 - 0.2
0.2 - 0.3
0.3 - 0.4
0.4 - 0.5
> 0.5
No Longer Flooded
Newly Flooded

0 1 2 4 6
km

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FIGURE 66
SENSITIVITIY ANALYSIS
PEAK FLOOD LEVEL IMPACT
1% AEP EVENT
400MM SEA LEVEL RISE
URUNGA

Yellow Rock Rd
Kalang River
Newry Island Dr
Giinagay Way
Bellingen St
Atherton Dr
The Grove
Bowra St
Orara St
URUNGA
Pilot St E
Morgo St
South St
Pilot St
High St
Giinagay Way
Hillside Dr
Hungry Head Rd
Urunga Lagoon
Kalang River North Arm
NEWRY ISLAND
Kalang River South Arm

N

Hydraulic Model Extent
Impact (m)
< - 0.3
-0.3 - -0.2
-0.2 - -0.1
Minimal Impact
0.1 - 0.2
0.2 - 0.3
0.3 - 0.4
0.4 - 0.5
> 0.5
No Longer Flooded
Newly Flooded

0 0.125 0.25 0.5 0.75
km

J:\Jobs\111036\ArcGIS\ArcMap\BK_FRMS\00_FRMS_MainReport\Figure66_Peak_Flood_Levels_Impact_SealevelRise400mm_100y_Urunga_BK.mxd

FIGURE 67
SENSITIVITIY ANALYSIS
PEAK FLOOD LEVEL IMPACT
1% AEP EVENT
900MM SEA LEVEL RISE

NORTH BELLINGEN
BELLINGEN
REPTON
RALEIGH
Tuckers Island
Pacific Ocean
URUNGA
NEWRY ISLAND
Cemetery Creek
Bellinger River
Pacific Highway
North Coast Railway
Boggy Creek
Back Creek
Kalang River
Kalang River North Arm
Kalang River South Arm
Urunga Lagoon

N

Hydraulic Model Extent
Impact (m)
< -0.2
-0.2 - -0.1
-0.1 - -0.01
Minimal Impact
0.01 - 0.1
0.1 - 0.2
0.2 - 0.3
0.3 - 0.4
0.4 - 0.8
> 0.8
No Longer Flooded
Newly Flooded

0 1 2 4 6 km

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FIGURE 68
SENSITIVITIY ANALYSIS
PEAK FLOOD LEVEL IMPACT
1% AEP EVENT
900MM SEA LEVEL RISE
URUNGA

Yellow Rock Rd
Kalang River
Atherton Dr
Giinagay Way
Bellingen St
Newry Island Dr
The Grove
Bowra St
Orara St
URUNGA
Pilot St E
Morgo St
South St
Pilot St
High St
Giinagay Way
Hillside Dr
Hungry Head Rd
Urunga Lagoon
Kalang River North Arm
NEWRY ISLAND
Kalang River South Arm

N

Hydraulic Model Extent
Impact (m)
< -0.2
-0.2 - -0.1
-0.1 - -0.01
Minimal Impact
0.01 - 0.1
0.1 - 0.2
0.2 - 0.3
0.3 - 0.4
0.4 - 0.8
> 0.8
No Longer Flooded
Newly Flooded

0 0.125 0.25 0.5 0.75
km

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