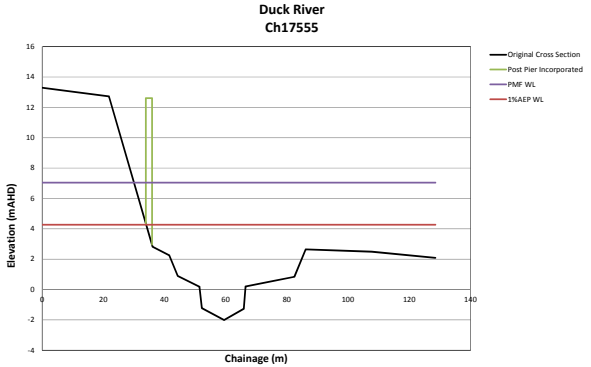
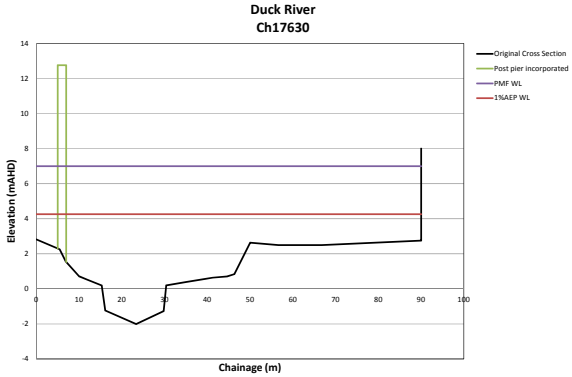
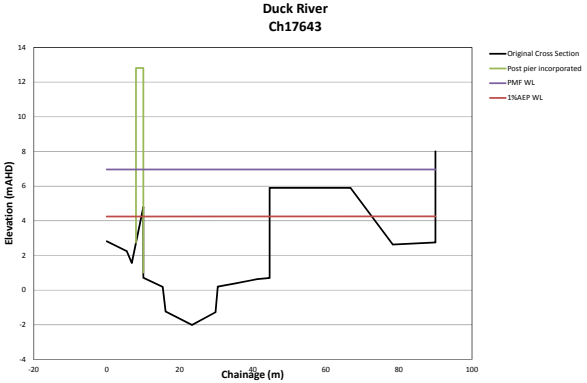
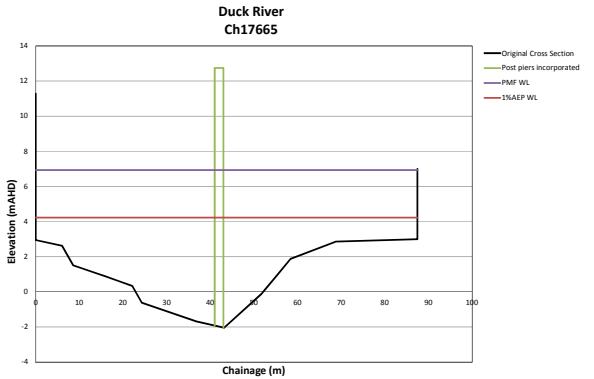
Appendix 6

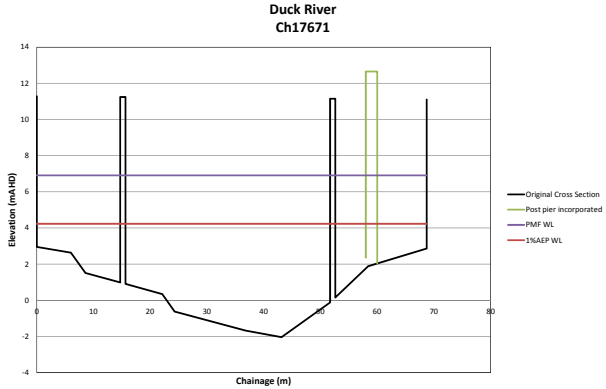
TUFLOW Modelling – Incorporation of Piers for Post Scenario

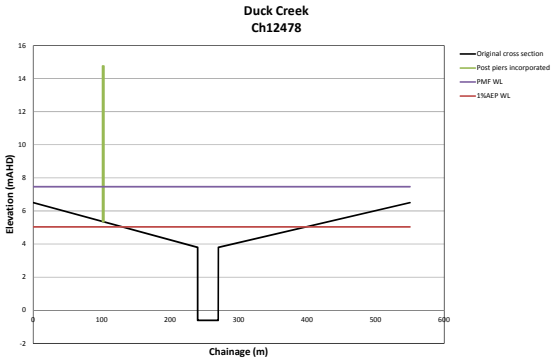

Duck River
Ch17555
Original Cross Section
Post Pier Incorporated
PMF WL
1%AEP WL
Elevation (mAHD)
Chainage (m)

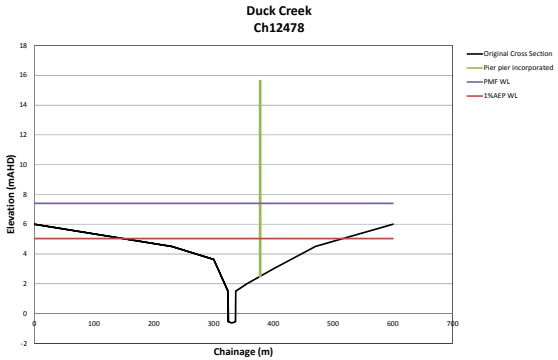

Duck River
Ch17630
Original Cross Section
Post pier incorporated
PMF WL
1%AEP WL
Elevation (mAHD)
Chainage (m)


Duck River
Ch17643
Original Cross Section
Post pier incorporated
PMF WL
1%AEP WL
Elevation (mAHD)
Chainage (m)


Duck River
Ch17665
Original Cross Section
Post piers incorporated
PMF WL
1%AEP WL
Elevation (mAHD)
Chainage (m)

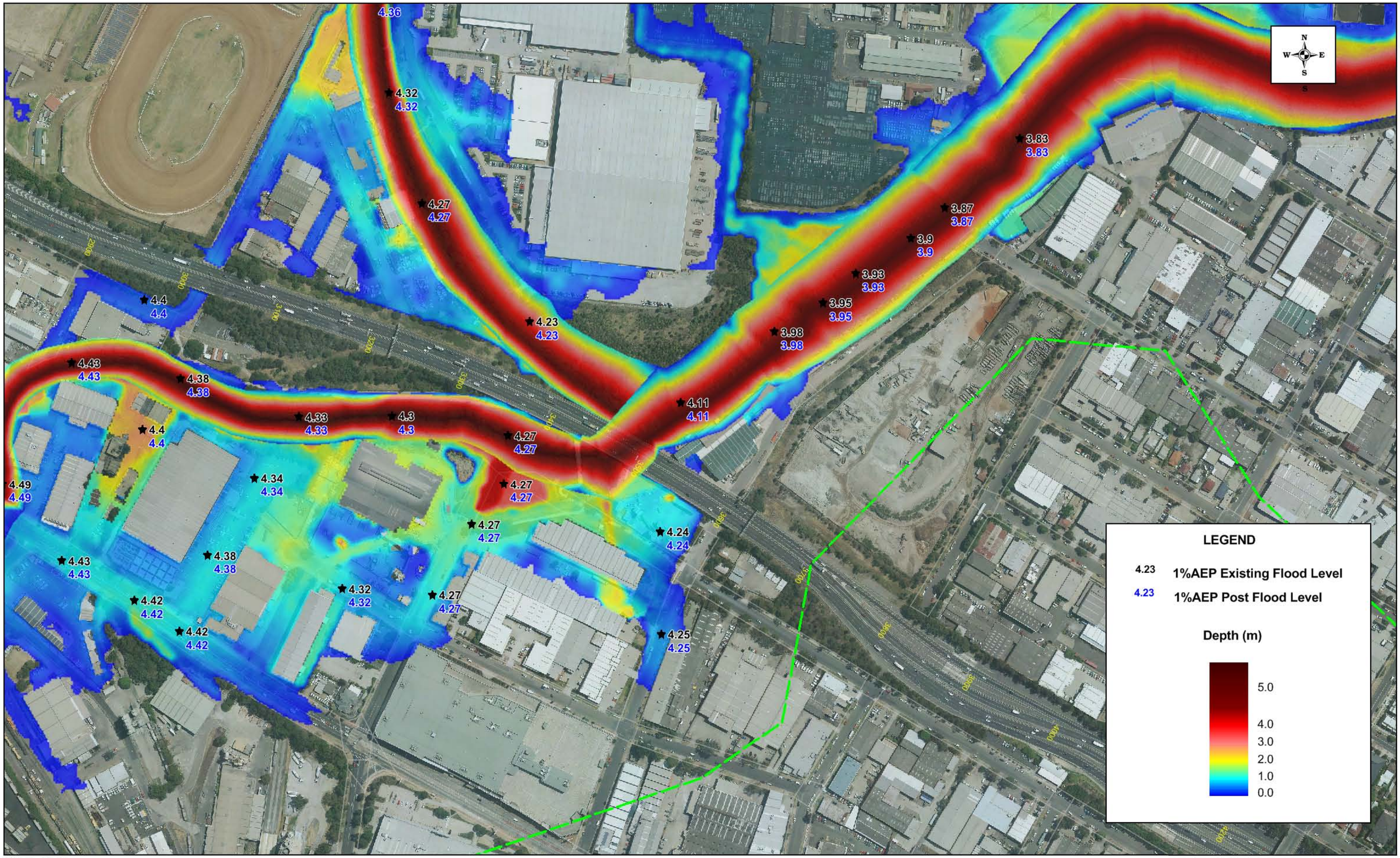

Duck River
Ch17671
Original Cross Section
Post pier incorporated
PMF WL
1%AEP WL
Elevation (mAHD)
Chainage (m)


Duck Creek
Ch12478
Elevation (mAHD)
Chainage (m)
Original cross section
Post piers incorporated
PMF WL
1%AEP WL


Duck Creek
Ch12478
Elevation (mAHD)
Chainage (m)
Original Cross Section
Pier pier incorporated
PMF WL
1%AEP WL

Appendix 7

TUFLOW Model Results



DISCLAIMER

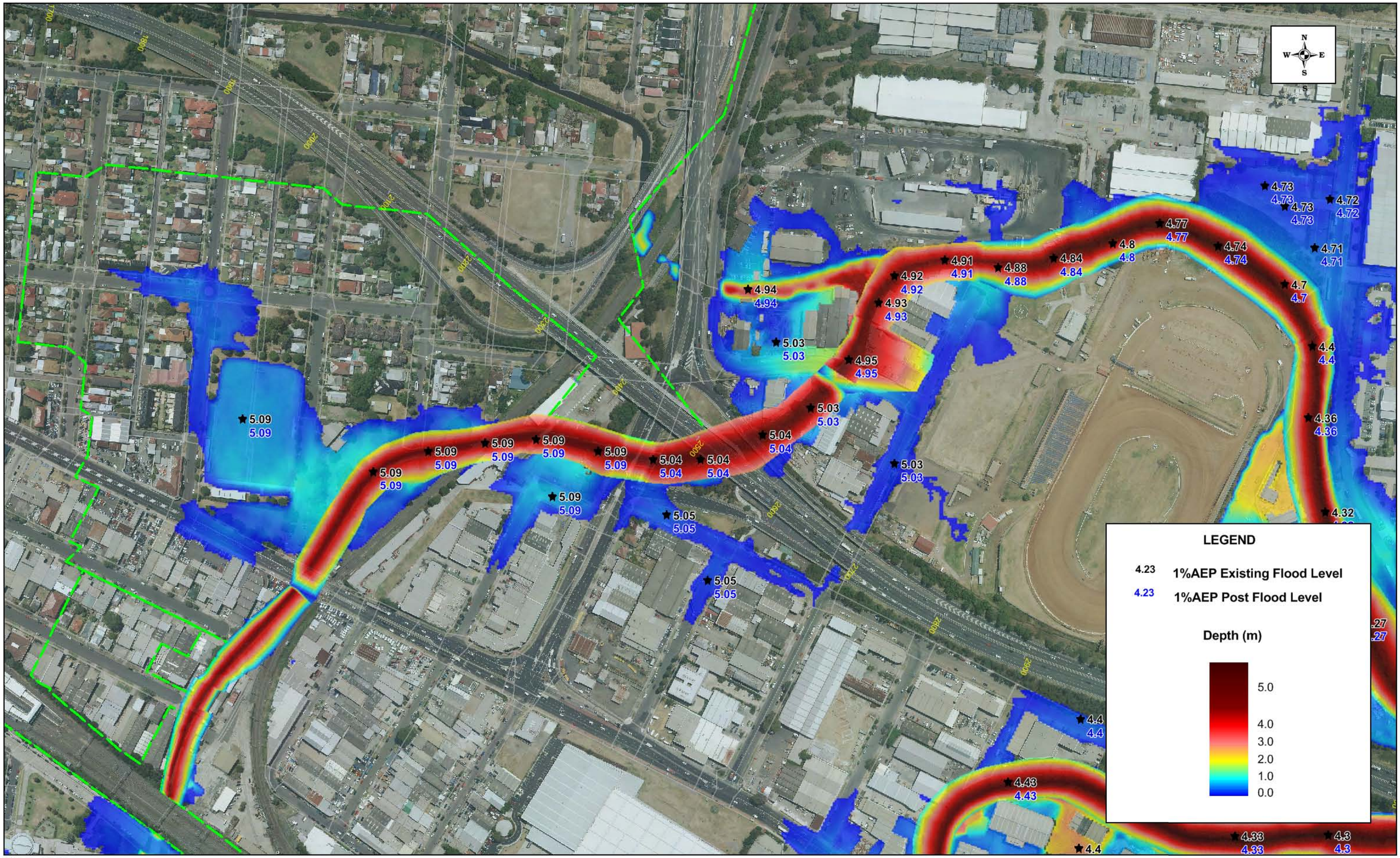
The accuracy of flood extents and hydraulic parameters shown on this map is limited to the level of accuracy of the survey data and modelling software available for flood modelling. The flood extents and hydraulic parameters on the map are only an indication of potential flooding conditions throughout the catchment for modelled design storm event and may vary from real flooding conditions.

0 50 100
metres

SMEC

WestConnex EIS - Flooding Component

Figure F1a: Flood Levels near Duck River Existing 1%AEP Design Flood Event



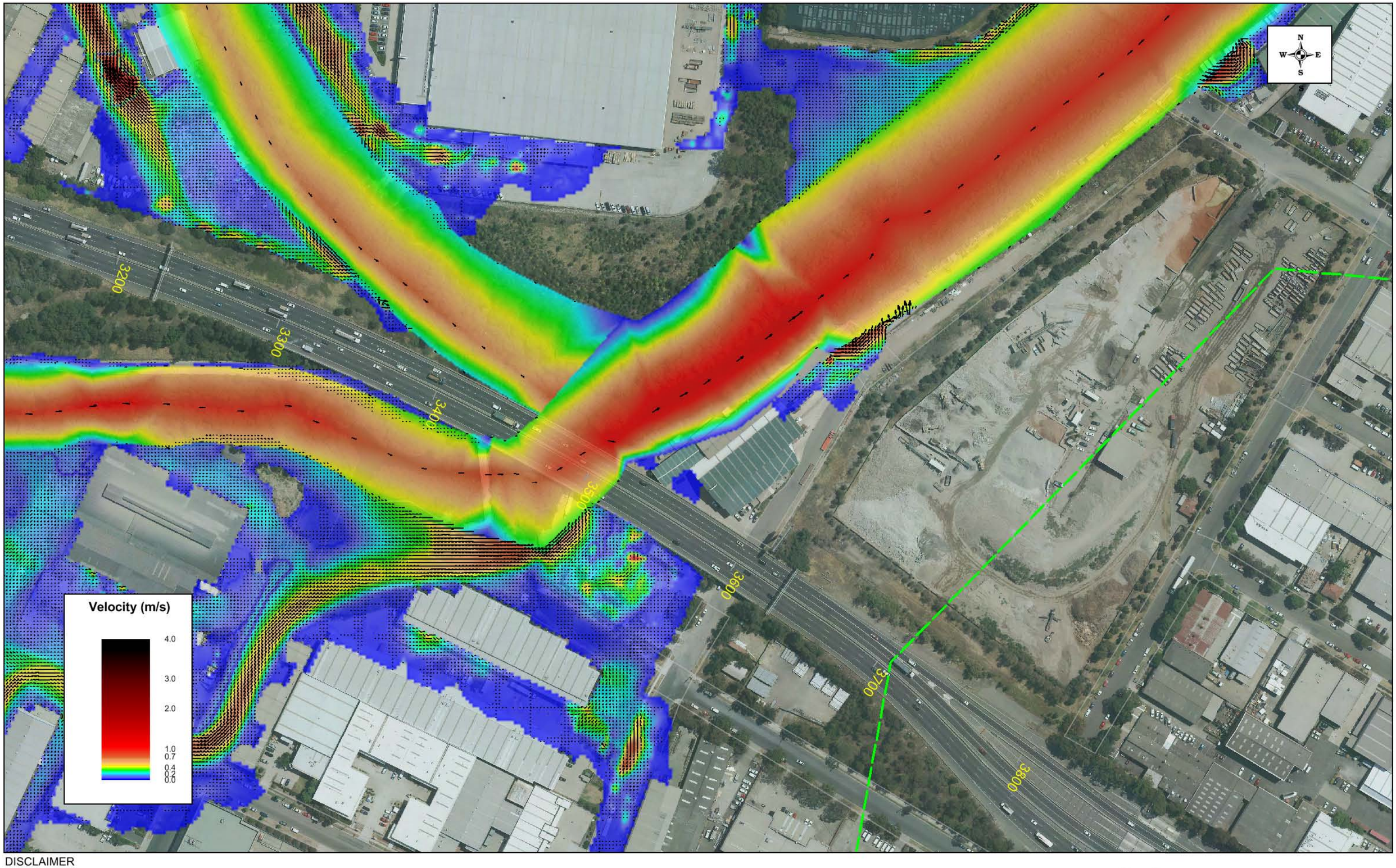
DISCLAIMER

The accuracy of flood extents and hydraulic parameters shown on this map is limited to the level of accuracy of the survey data and modelling software available for flood modelling. The flood extents and hydraulic parameters on the map are only an indication of potential flooding conditions throughout the catchment for modelled design storm event and may vary from real flooding conditions.

SMEC

WestConnex EIS - Flooding Component

Figure F2a: Flood Levels near Duck Creek Existing 1%AEP Design Flood Event



DISCLAIMER

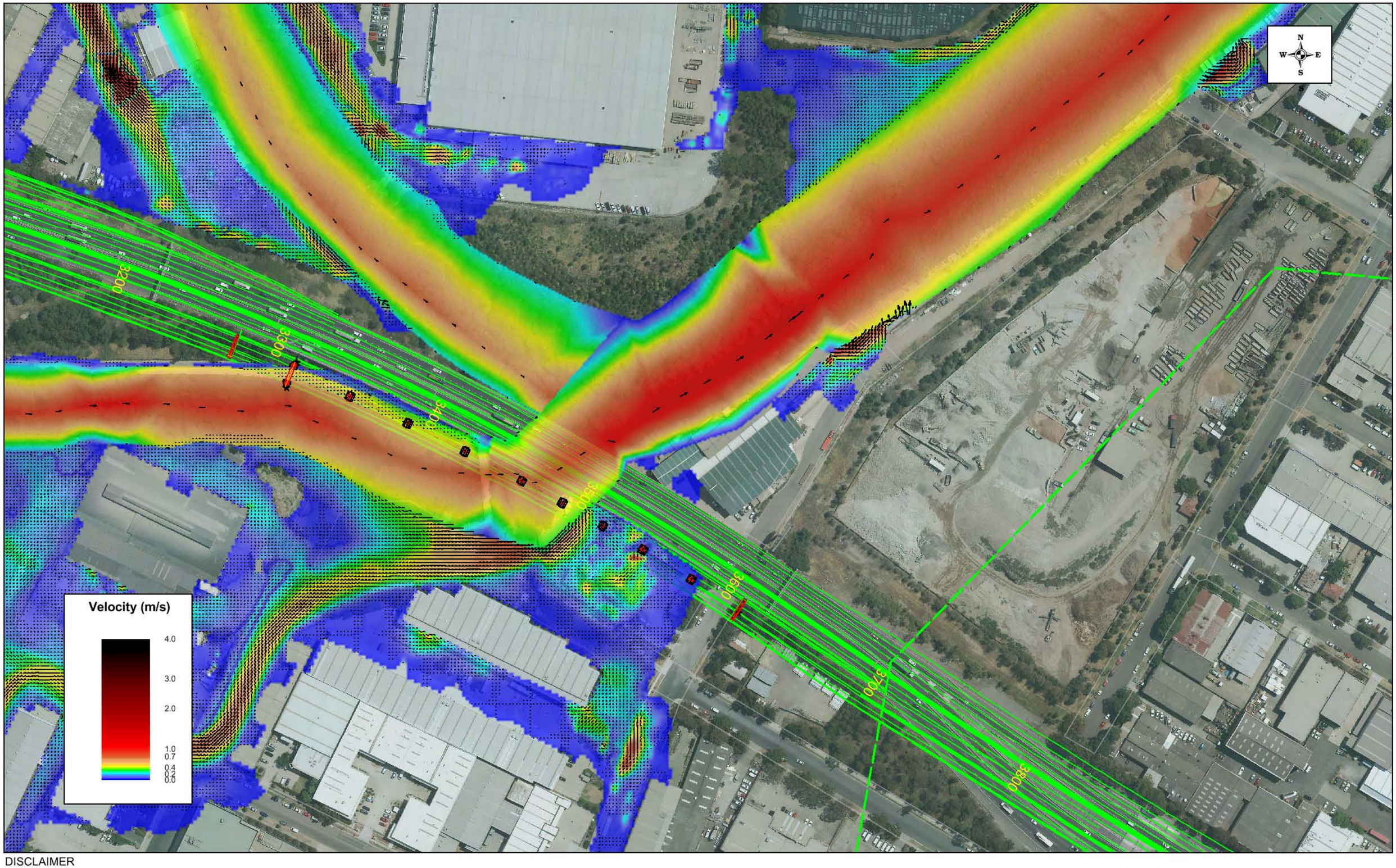
The accuracy of flood extents and hydraulic parameters shown on this map is limited to the level of accuracy of the survey data and modelling software available for flood modelling. The flood extents and hydraulic parameters on the map are only an indication of potential flooding conditions throughout the catchment for modelled design storm event and may vary from real flooding conditions.

0 50 100
metres

SMEC

WestConnex EIS - Flooding Component

Figure E1a: Water Velocities near Duck River Existing 1%AEP Design Flood Event WIDER TUFLOW MODEL



DISCLAIMER

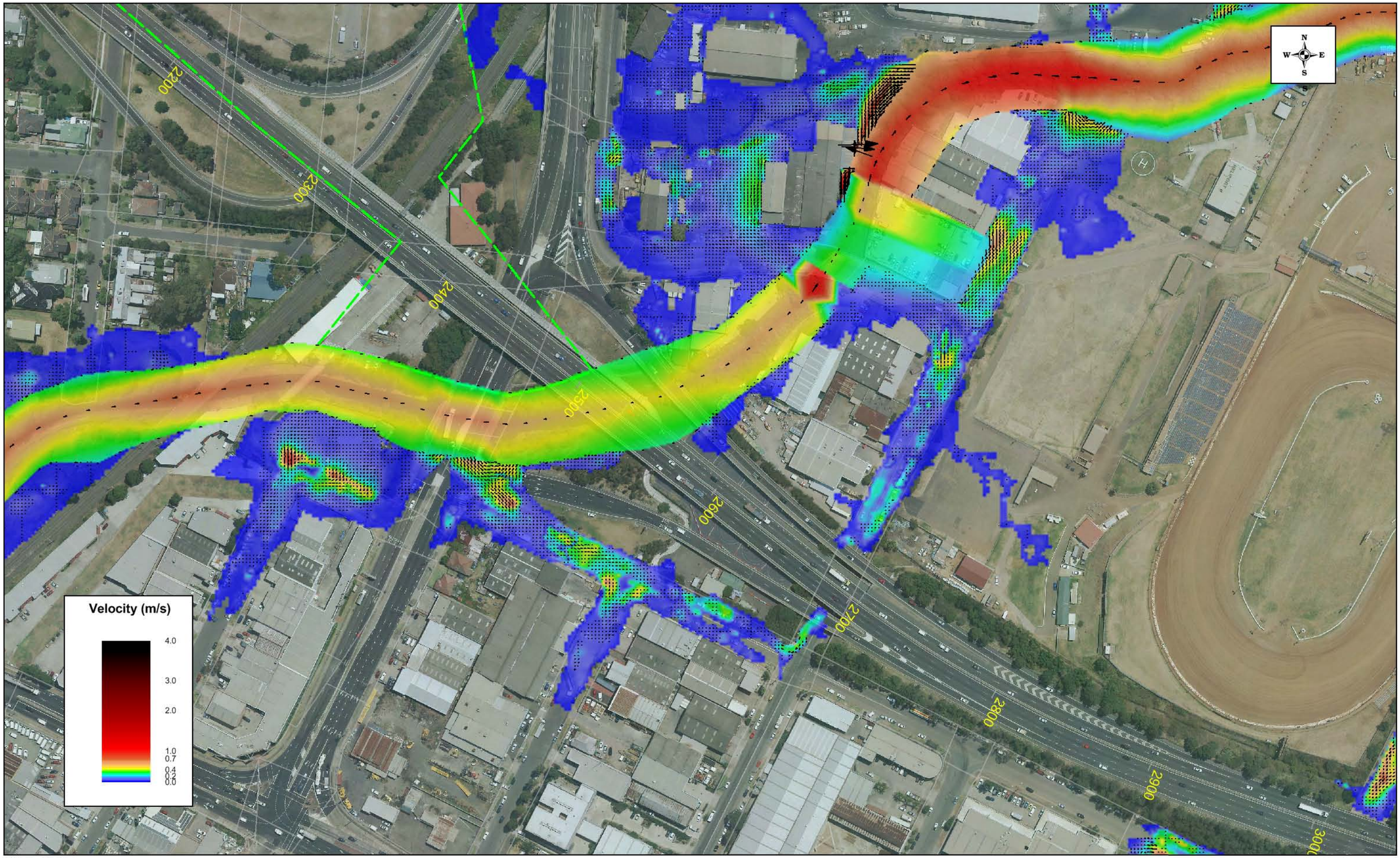
The accuracy of flood extents and hydraulic parameters shown on this map is limited to the level of accuracy of the survey data and modelling software available for flood modelling. The flood extents and hydraulic parameters on the map are only an indication of potential flooding conditions throughout the catchment for modelled design storm event and may vary from real flooding conditions.

0 50 100
metres

SMEC

WestConnex EIS - Flooding Component

Figure E1b: Water Velocities near Duck River Post
1%AEP Design Flood Event
WIDER TUFLOW MODEL



DISCLAIMER

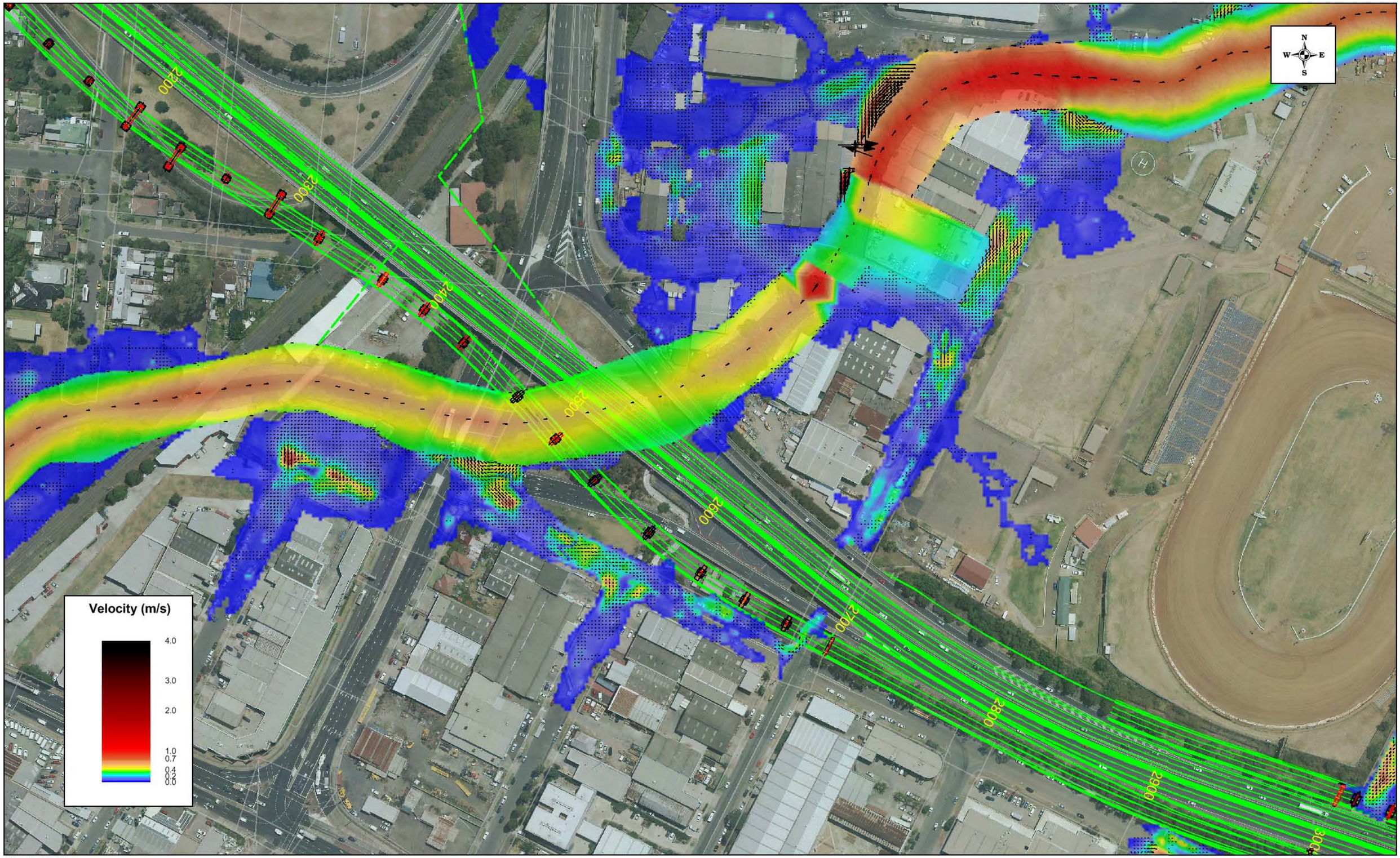
The accuracy of flood extents and hydraulic parameters shown on this map is limited to the level of accuracy of the survey data and modelling software available for flood modelling. The flood extents and hydraulic parameters on the map are only an indication of potential flooding conditions throughout the catchment for modelled design storm event and may vary from real flooding conditions.

0 50 100
metres

SMEC

WestConnex EIS - Flooding Component

Figure E2a: Water Velocities near Duck Creek
Existing
1%AEP Design Flood Event
WIDER TUFLOW MODEL



DISCLAIMER

The accuracy of flood extents and hydraulic parameters shown on this map is limited to the level of accuracy of the survey data and modelling software available for flood modelling. The flood extents and hydraulic parameters on the map are only an indication of potential flooding conditions throughout the catchment for modelled design storm event and may vary from real flooding conditions.

0 50 100
metres

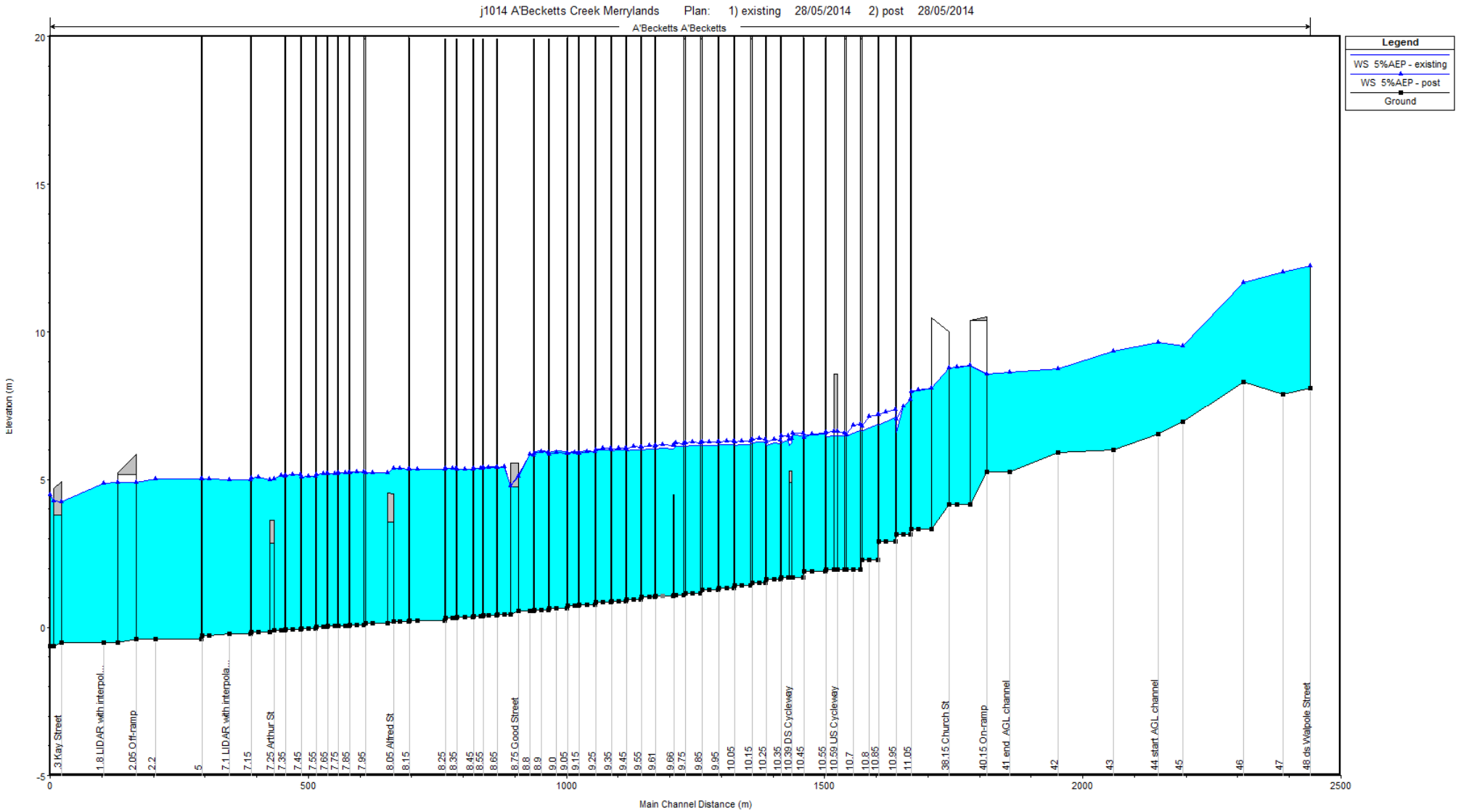
SMEC

WestConnex EIS - Flooding Component

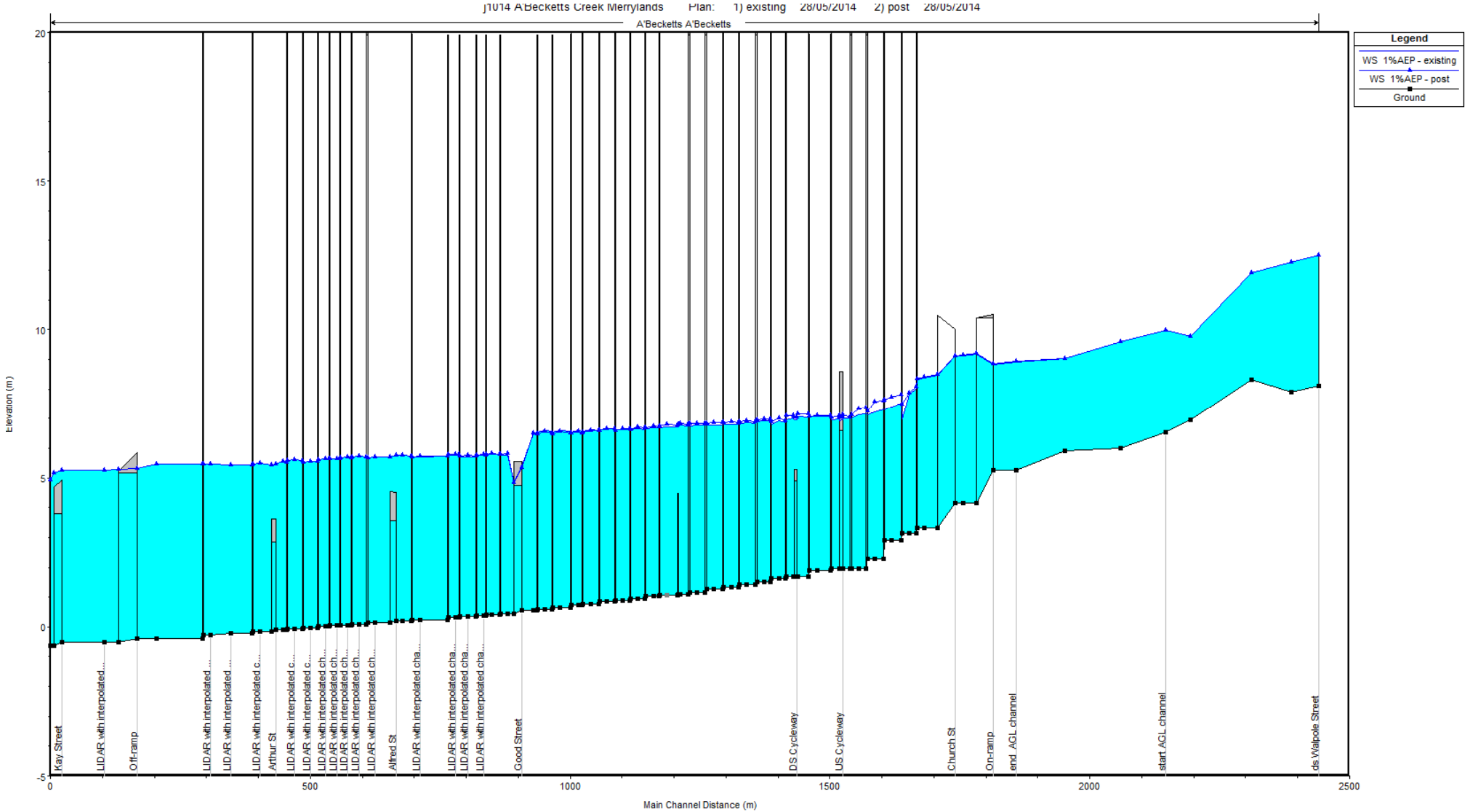
Figure E2b: Water Velocities near Duck Creek Post
1%AEP Design Flood Event
WIDER TUFLOW MODEL

Appendix 8

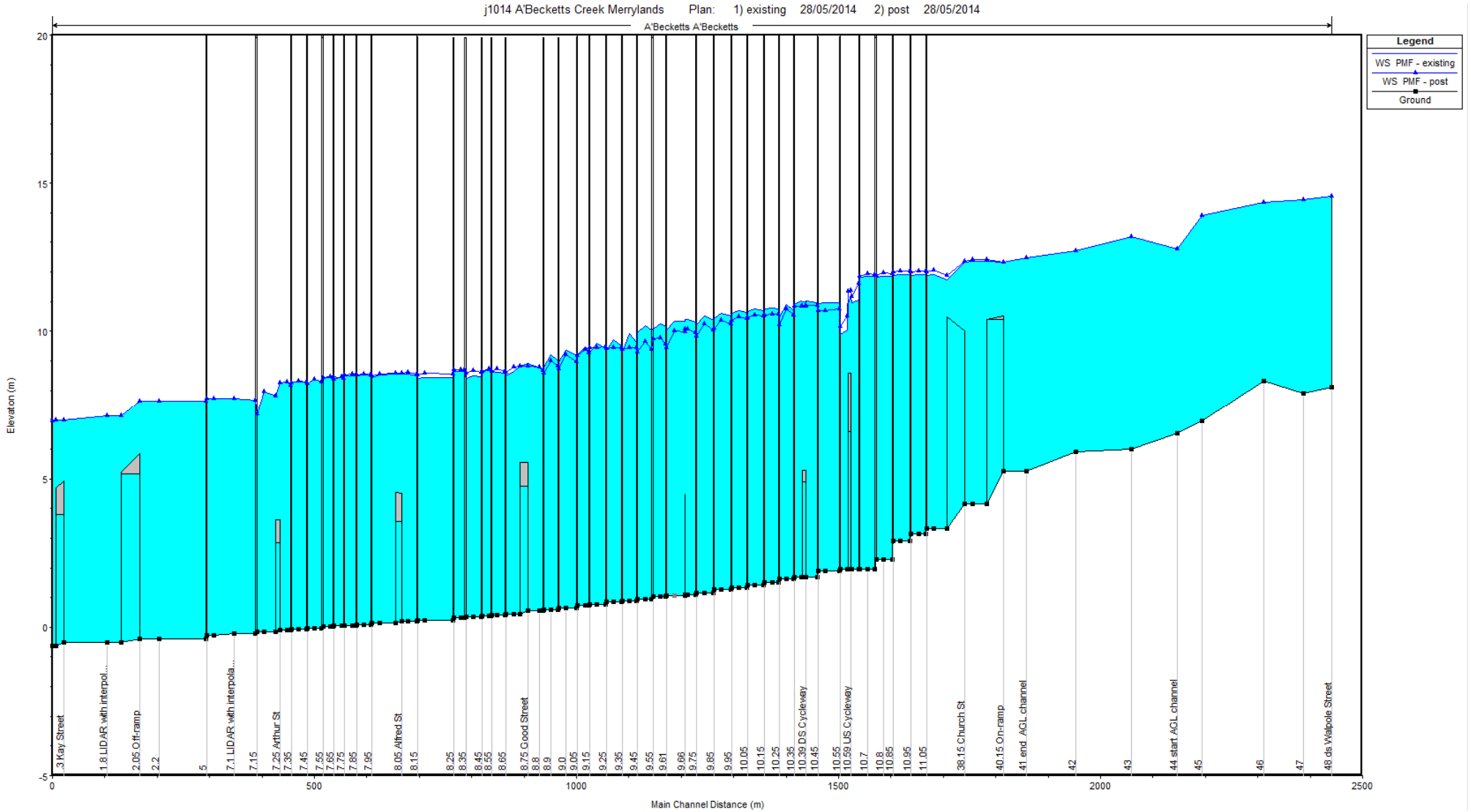
A’Becketts Creek - Water Surface Profiles



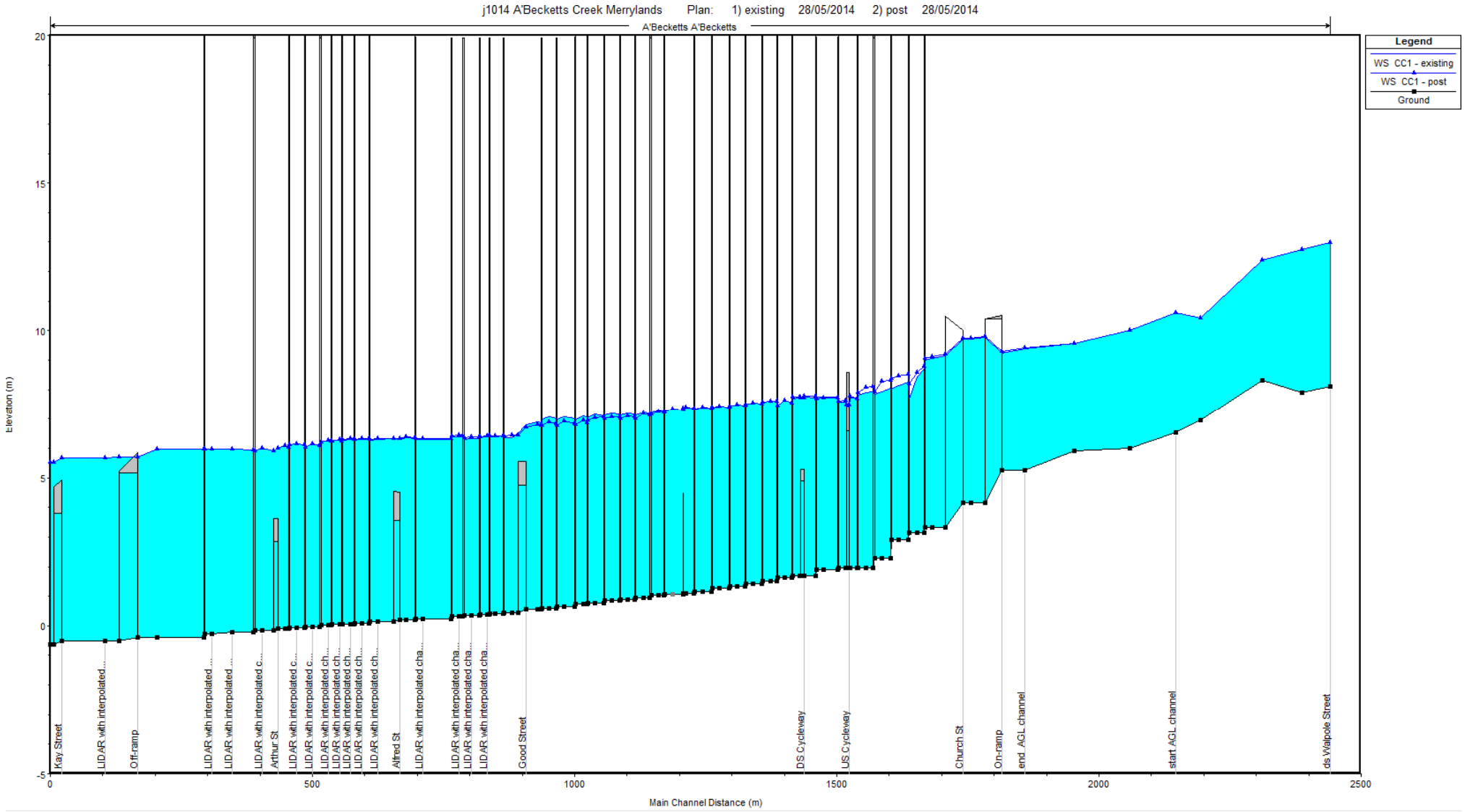
A'Becketts Creek Water Surface Profile (5%AEP)



A'Becketts Creek Water Surface Profile (1%AEP)



A'Becketts Creek Water Surface Profile (PMF)



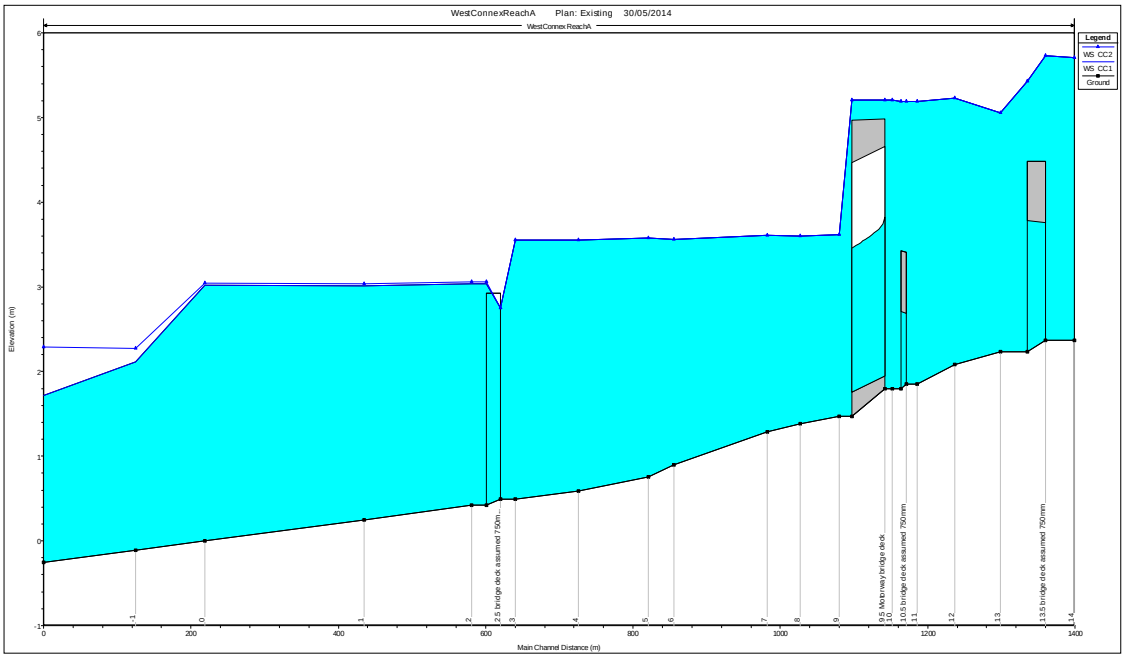
A'Becketts Creek Water Surface Profile (Climate Change 1%AEP)

Appendix 9

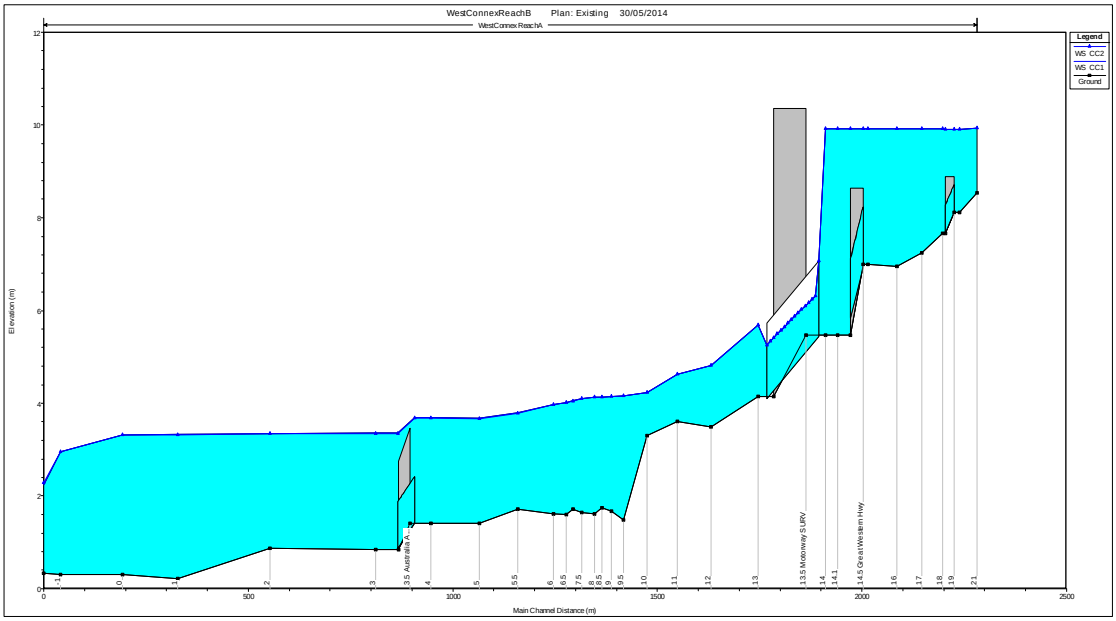
Sea Level Rise Sensitivity Testing - Water Surface Profiles

A further simulation was undertaken of a number of reaches where the tailwater condition was varied from 0.21m SLR to 0.91m SLR with 30% increase in average rainfall intensities. The water surface profiles for these climate change runs are shown below under existing conditions. These additional runs indicate that although higher sea level rise would impact on the lower reaches of the creeks, levels in the vicinity of the motorway would be unaffected by sea level rise.

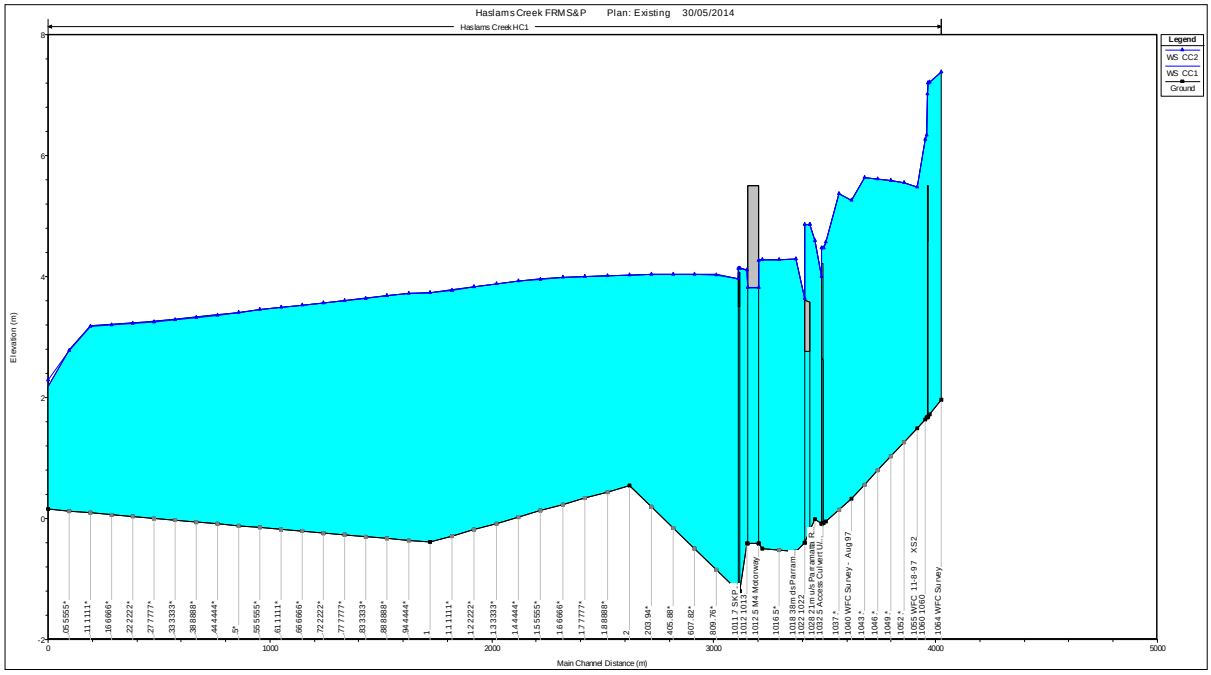
REACH A



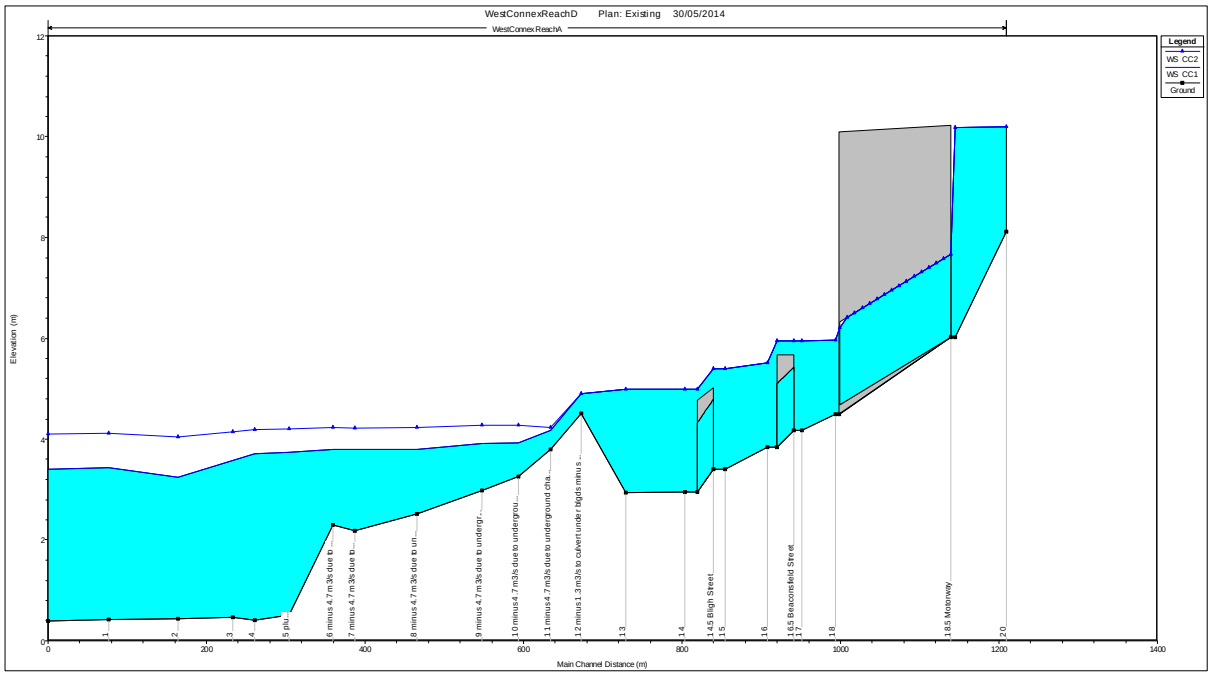
REACH B



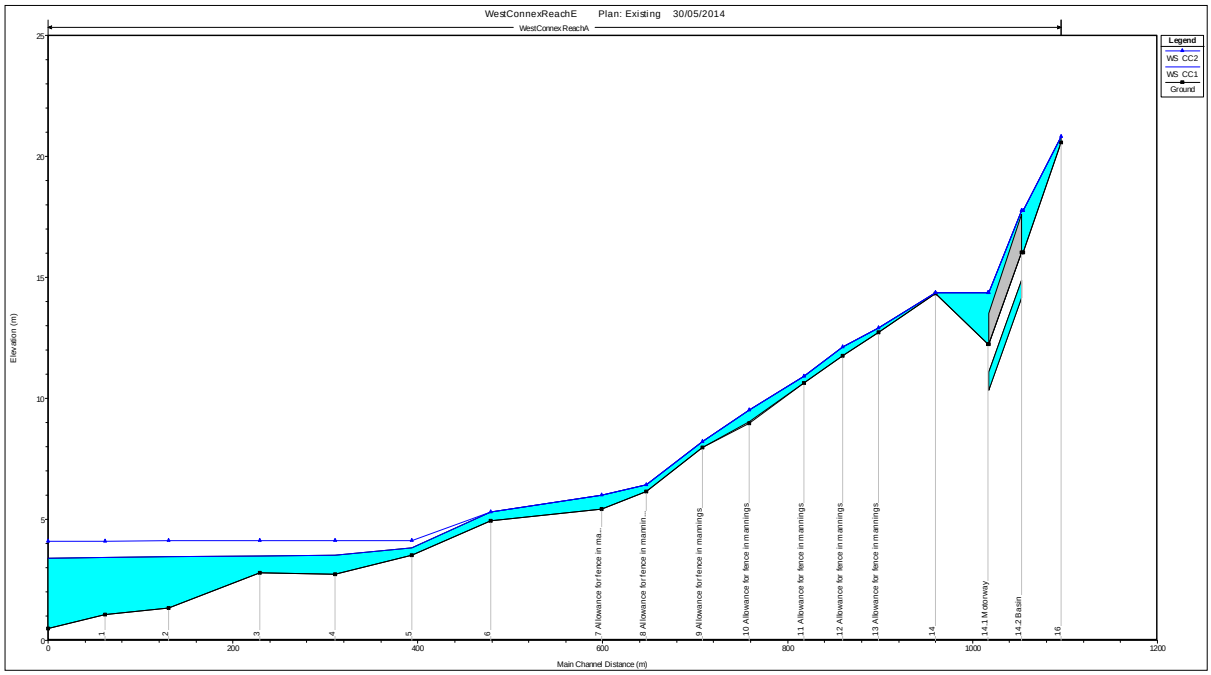
HASLAMS CREEK



REACH D



REACH E


WestConnexReachE Plan: Existing 30/05/2014
WestConnexReachA
Legend
WS CC2
WS CC1
Ground
Elevation (m)
Main Channel Distance (m)
0
5
10
15
20
25
0
200
400
600
800
1000
1200
1
2
3
4
5
6
7 Allowance for fence in ma...
8 Allowance for fence in mannin...
9 Allowance for fence in mannings
10 Allowance for fence in mannings
11 Allowance for fence in mannings
12 Allowance for fence in mannings
13 Allowance for fence in mannings
14
14.1 Motorway
14.2 Basin
16