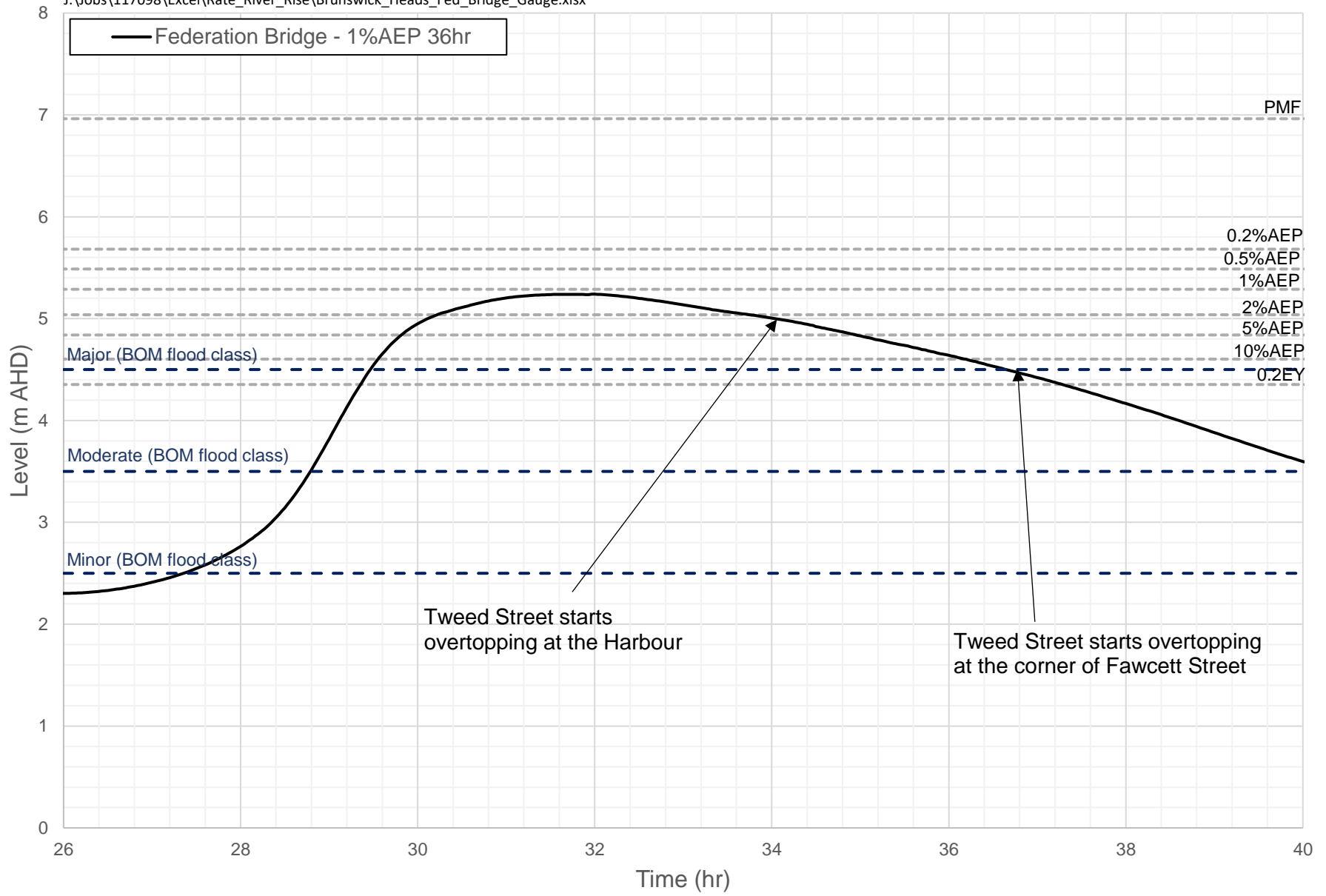




Appendix J

J:\Jobs\117098\Excel\Rate_River_Rise\Brunswick_Heads_Fed_Bridge_Gauge.xlsx



**1%AEP DESIGN EVENT - EVACUATION ROUTE BRUNSWICK HEADS
STAGE HYDROGRAPH AT FEDERATION BRIDGE GAUGE**

FIGURE J1

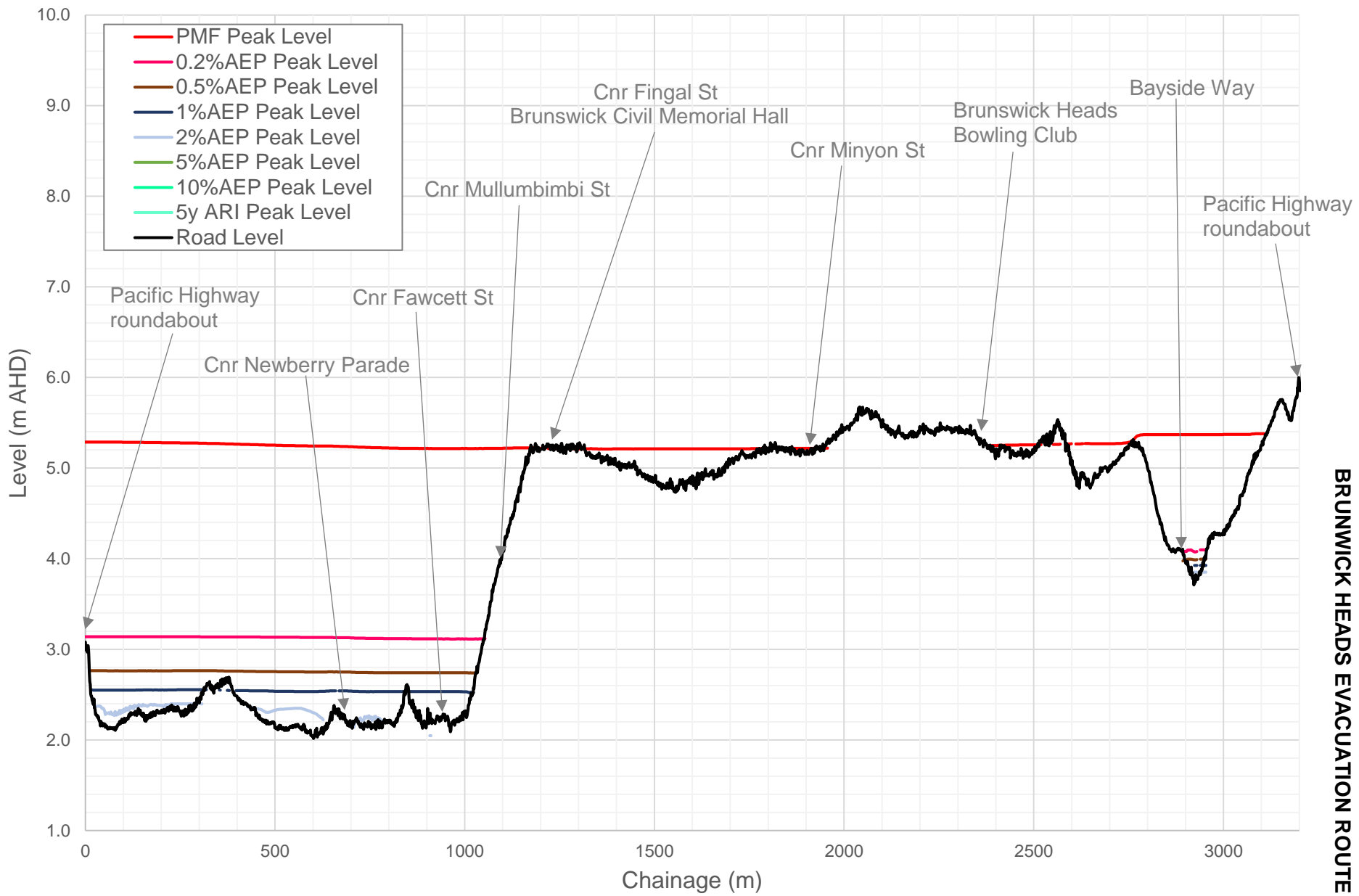
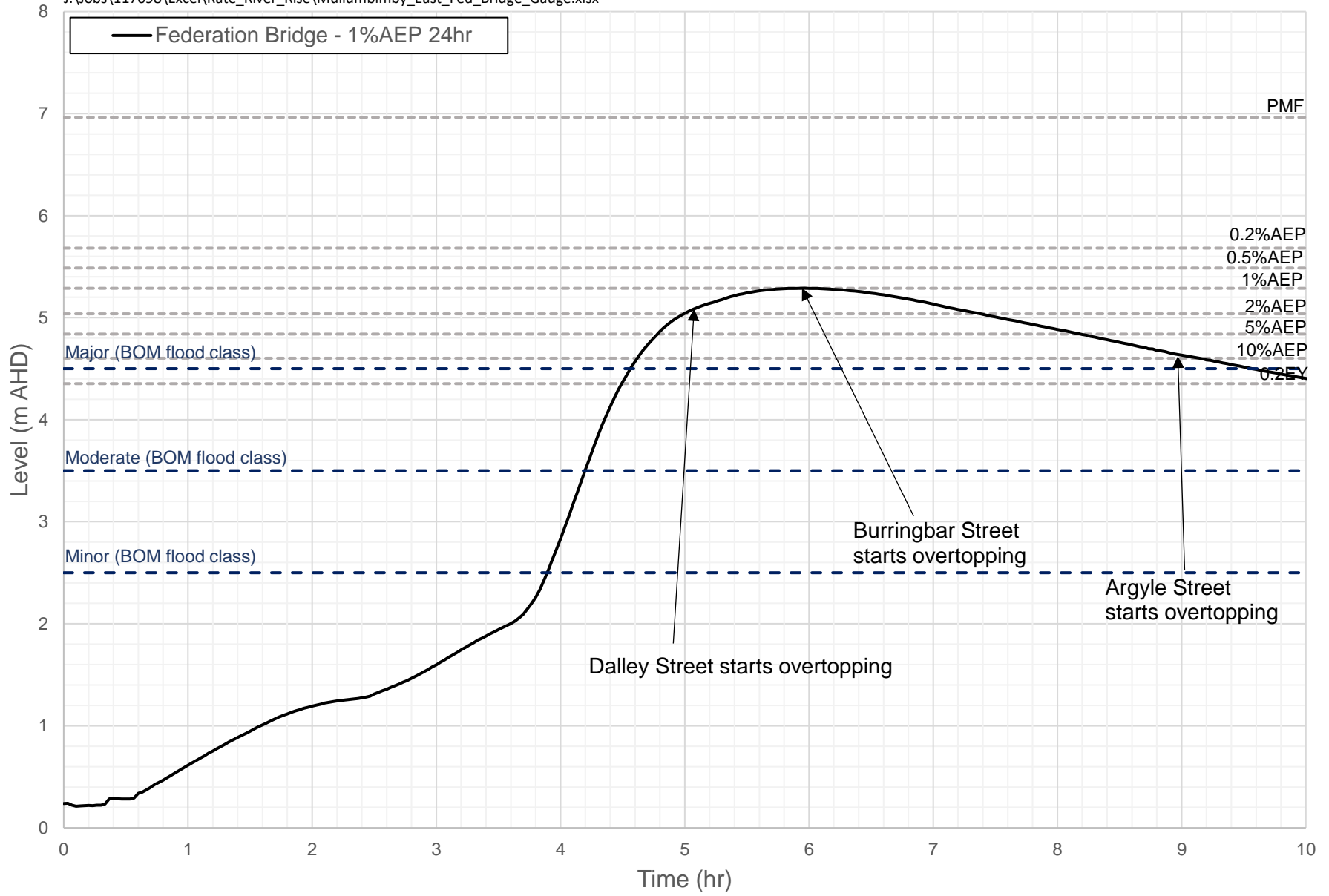


FIGURE J2
 LONG PROFILE
 BRUNSWICK HEADS EVACUATION ROUTE

J:\Jobs\117098\Excel\Rate_River_Rise\Mullumbimby_East_Fed_Bridge_Gauge.xlsx



1% AEP DESIGN EVENT - EVACUATION ROUTE MULLUMBIMBY EAST STAGE HYDROGRAPH AT FEDERATION BRIDGE GAUGE
FIGURE J3

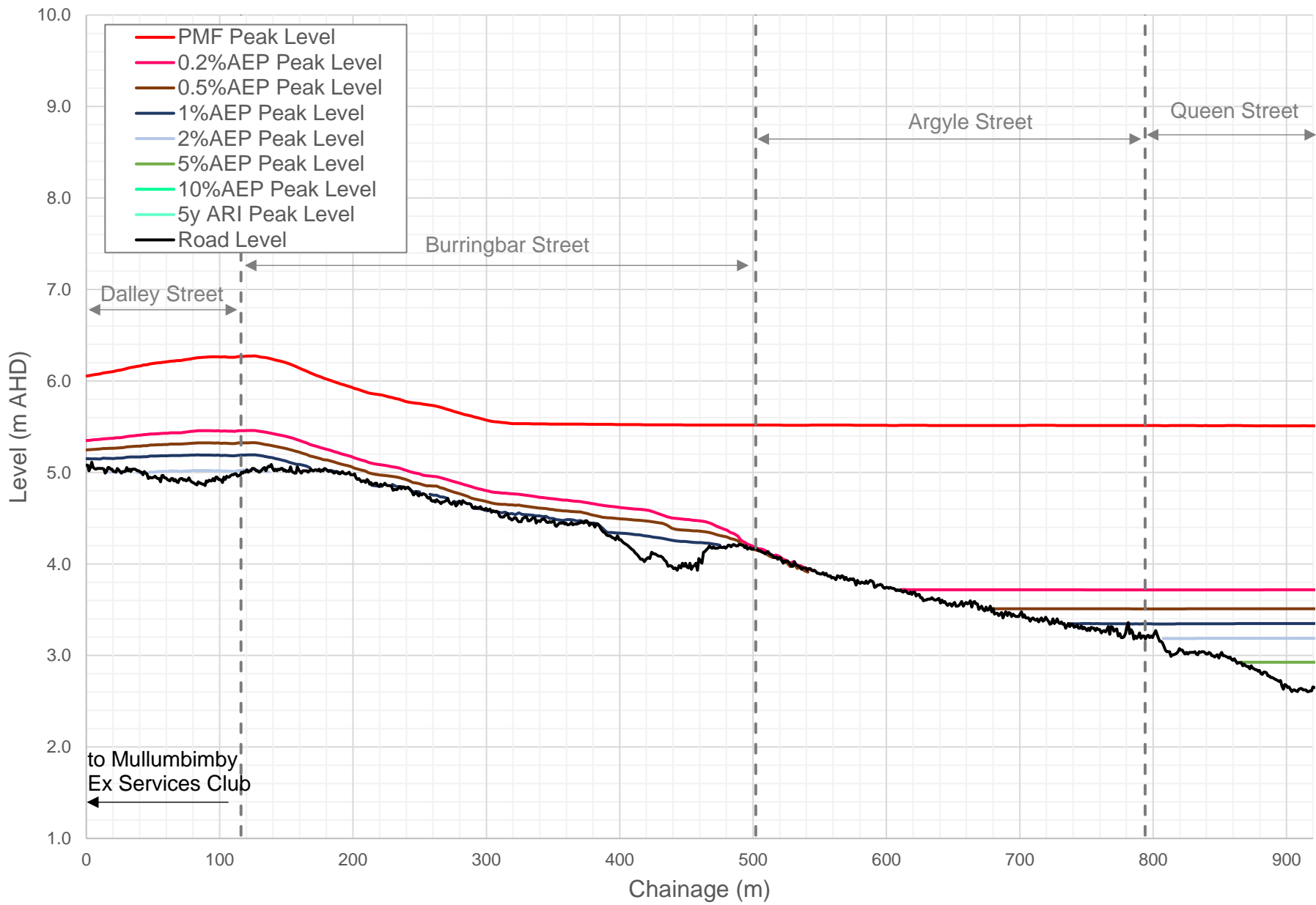
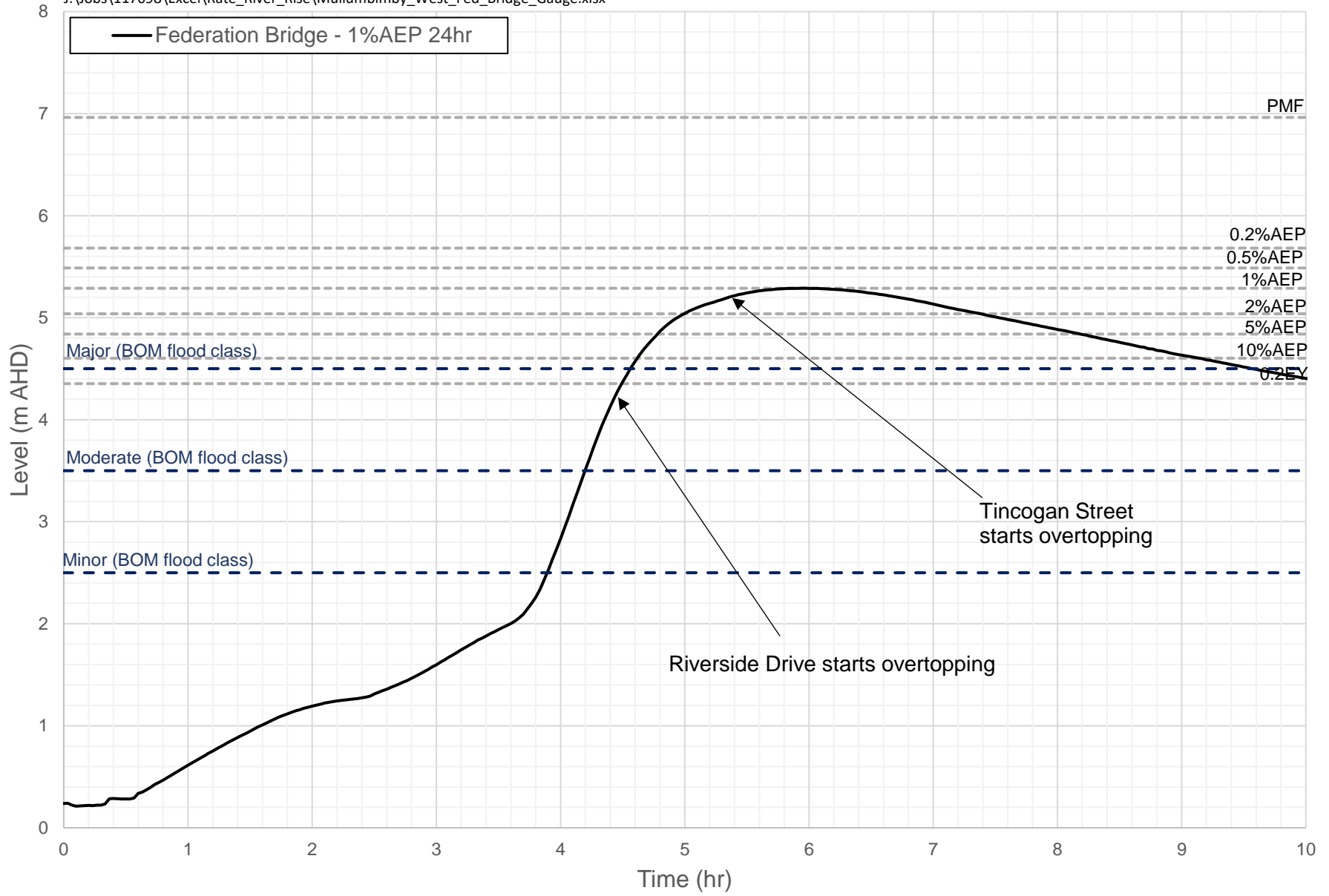
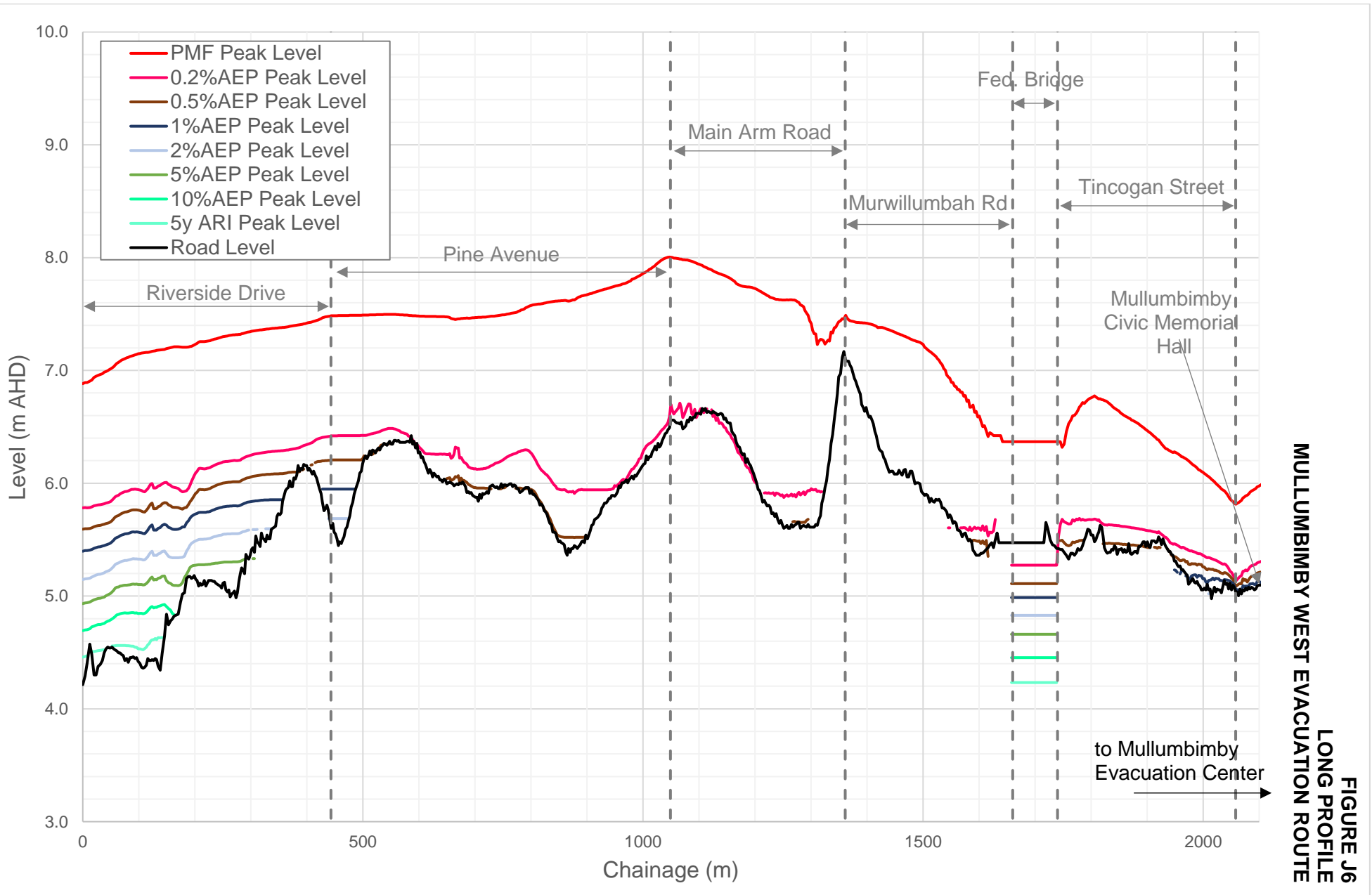


FIGURE J4
LONG PROFILE
MULLUMBIMBY EAST EVACUATION ROUTE

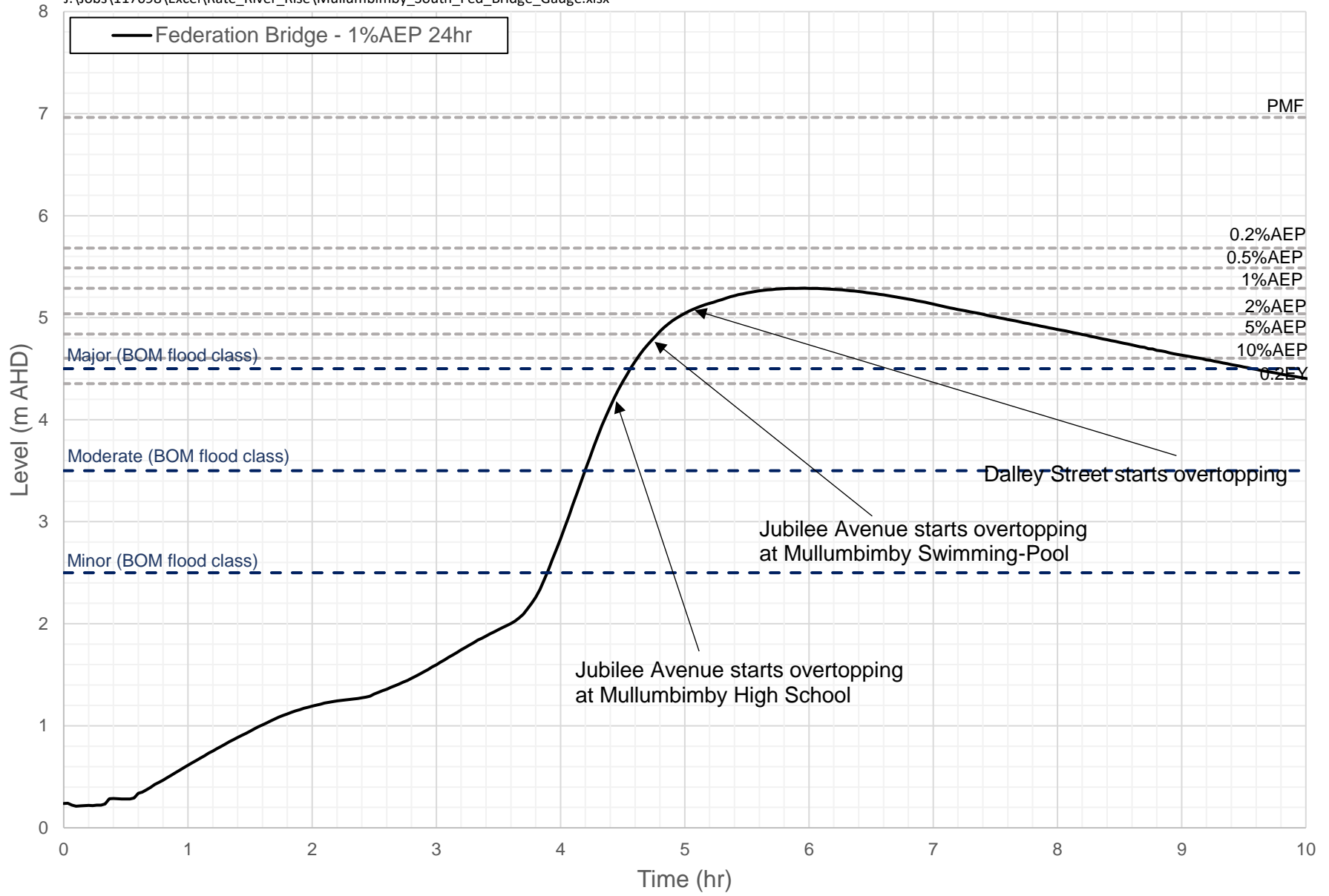
J:\Jobs\117098\Excel\Rate_River_Rise\Mullumbimby_West_Fed_Bridge_Gauge.xlsx



1%AEP DESIGN EVENT - EVACUATION ROUTE MULLUMBIMBY WEST
STAGE HYDROGRAPH AT FEDERATION BRIDGE GAUGE
FIGURE J5



J:\Jobs\117098\Excel\Rate_River_Rise\Mullumbimby_South_Fed_Bridge_Gauge.xlsx



1%AEP DESIGN EVENT - EVACUATION ROUTE MULLUMBIMBY SOUTH STAGE HYDROGRAPH AT FEDERATION BRIDGE GAUGE

FIGURE J7

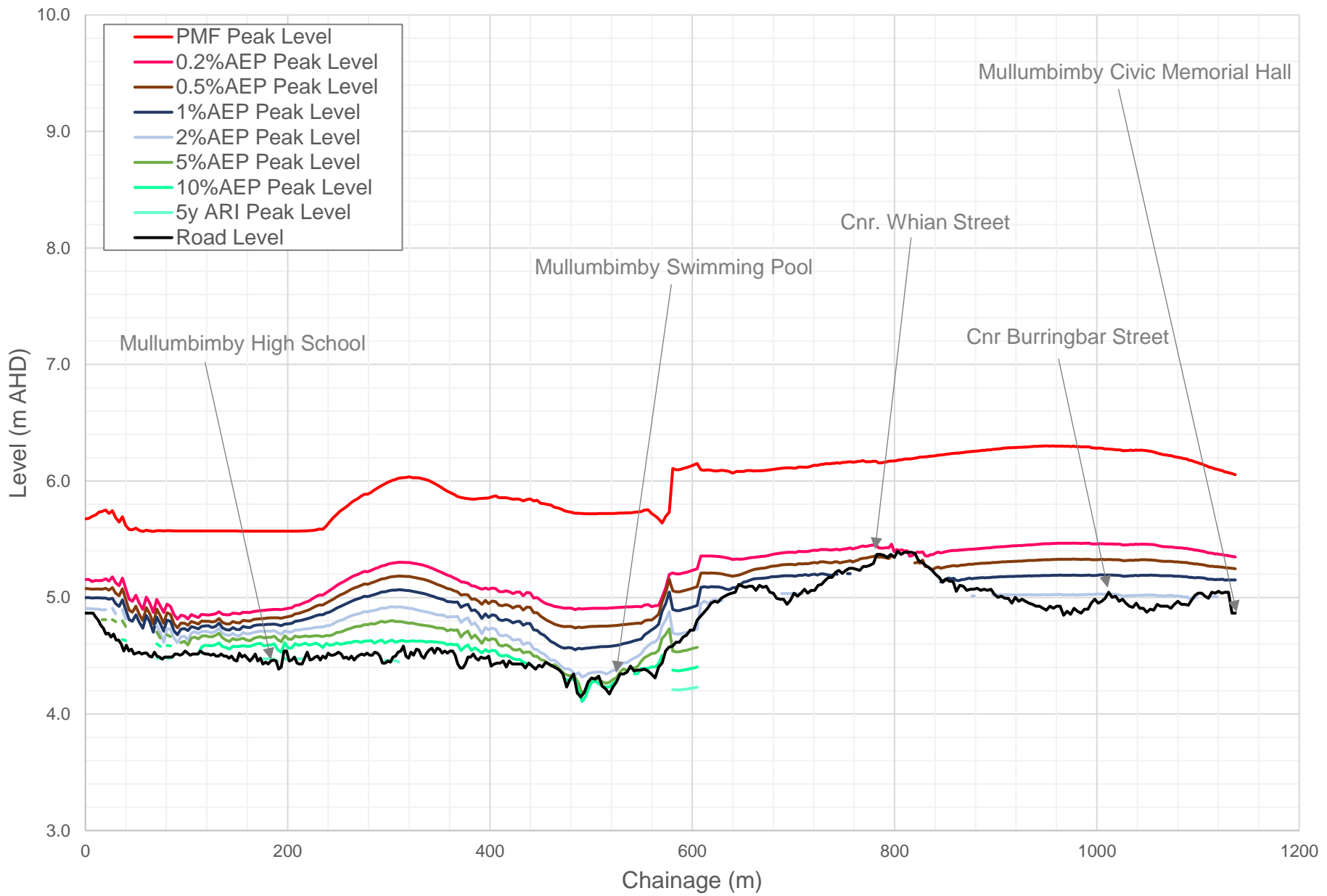
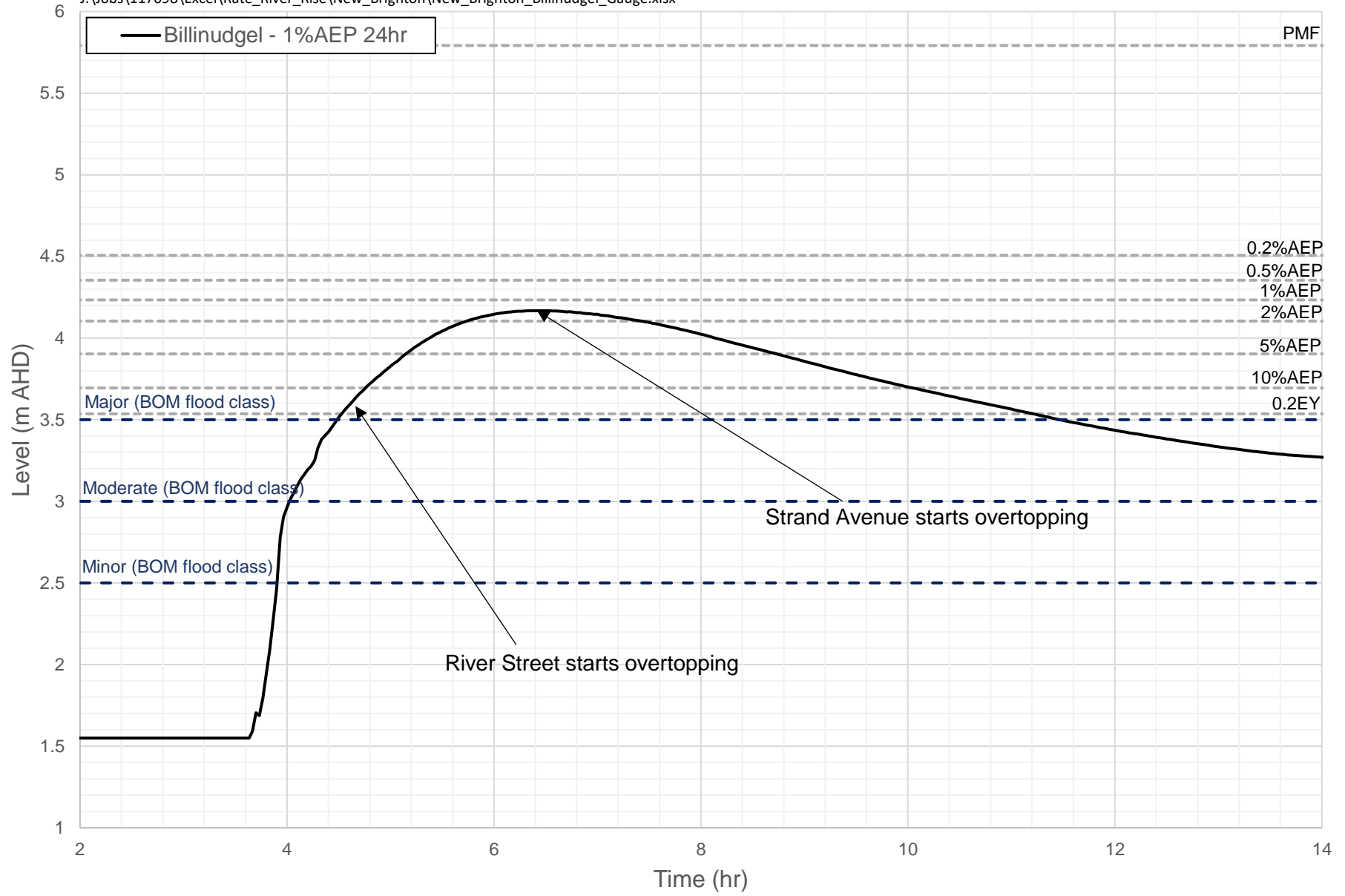


FIGURE J8
LONG PROFILE
MULLUMBIMBY SOUTH EVACUATION ROUTE

J:\Jobs\117098\Excel\Rate_River_Rise\New_Brighton\New_Brighton_Billinudgel_Gauge.xlsx



1%AEP DESIGN EVENT - EVACUATION ROUTE NEW BRIGHTON
STAGE HYDROGRAPH AT BILLINUDGEL GAUGE

FIGURE J9

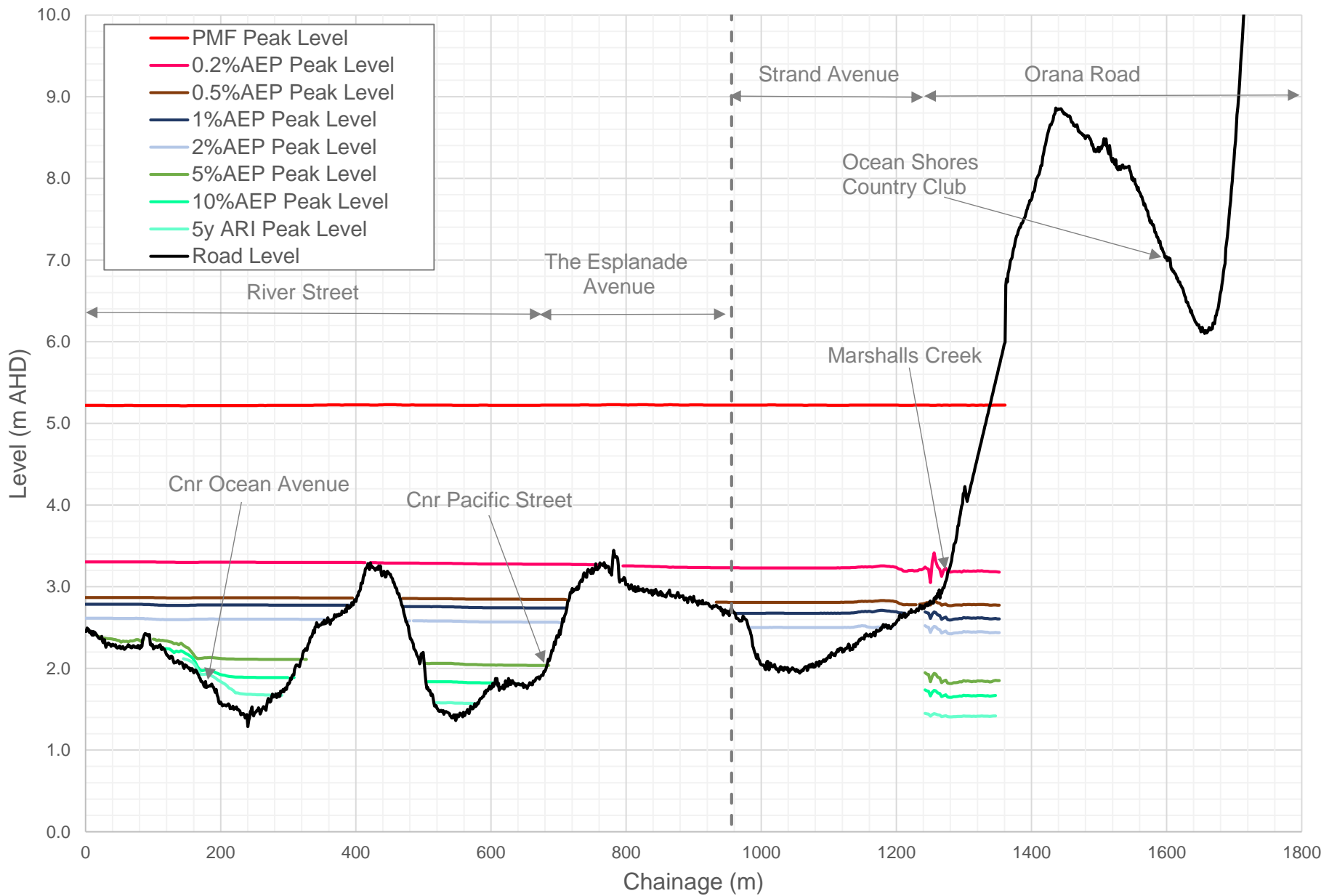


FIGURE J10
LONG PROFILE
NEW BRIGHTON AND OCEAN SHORES EVACUATION ROUTE

J:\Jobs\117098\Excel\Rate_River_Rise\New_Brighton\Ocean_Shores_Billinudgel_Gauge.xlsx

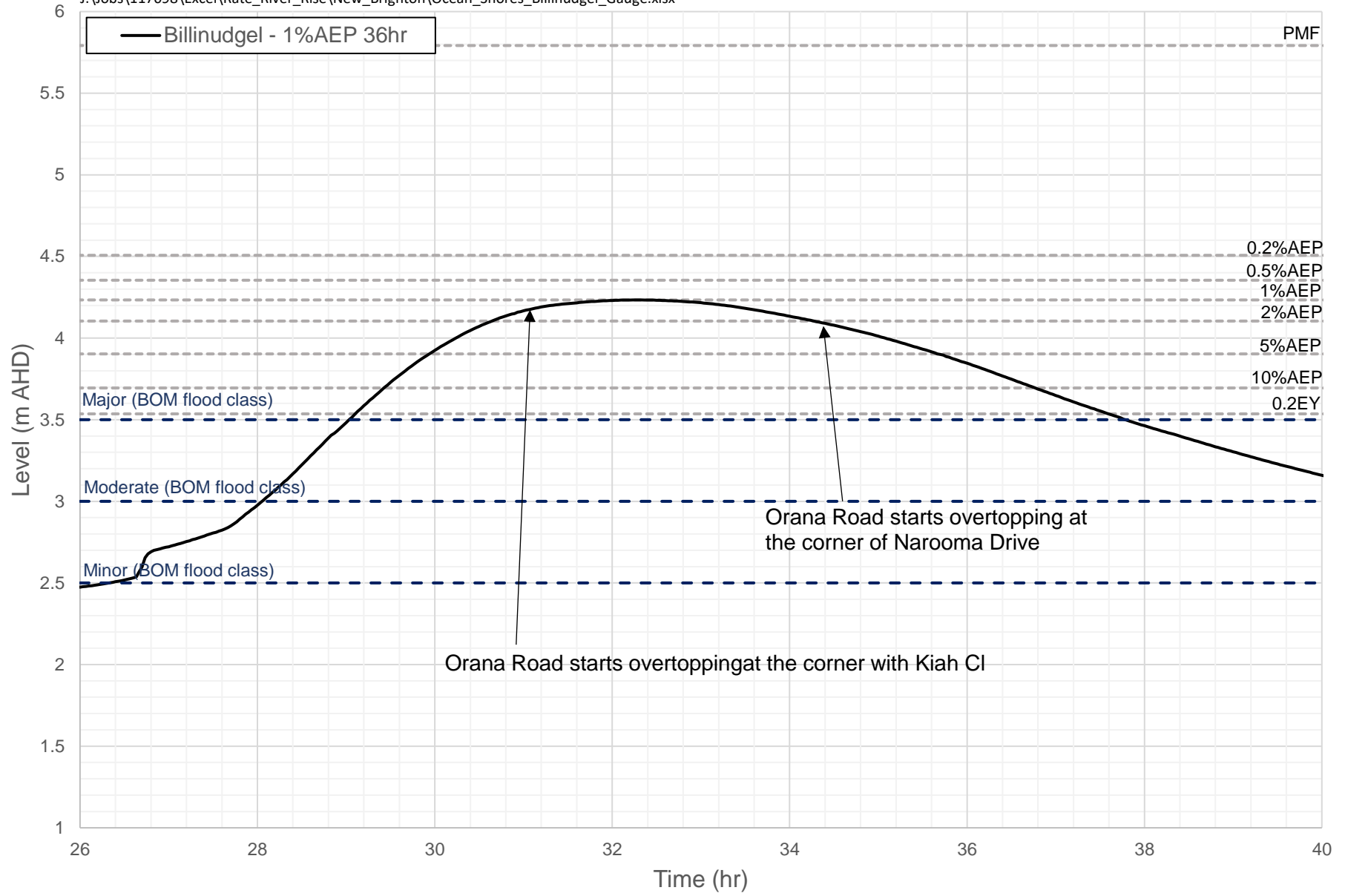


FIGURE J11
1% AEP DESIGN EVENT - EVACUATION ROUTE OCEAN SHORES
STAGE HYDROGRAPH AT BILLINUDGEL GAUGE

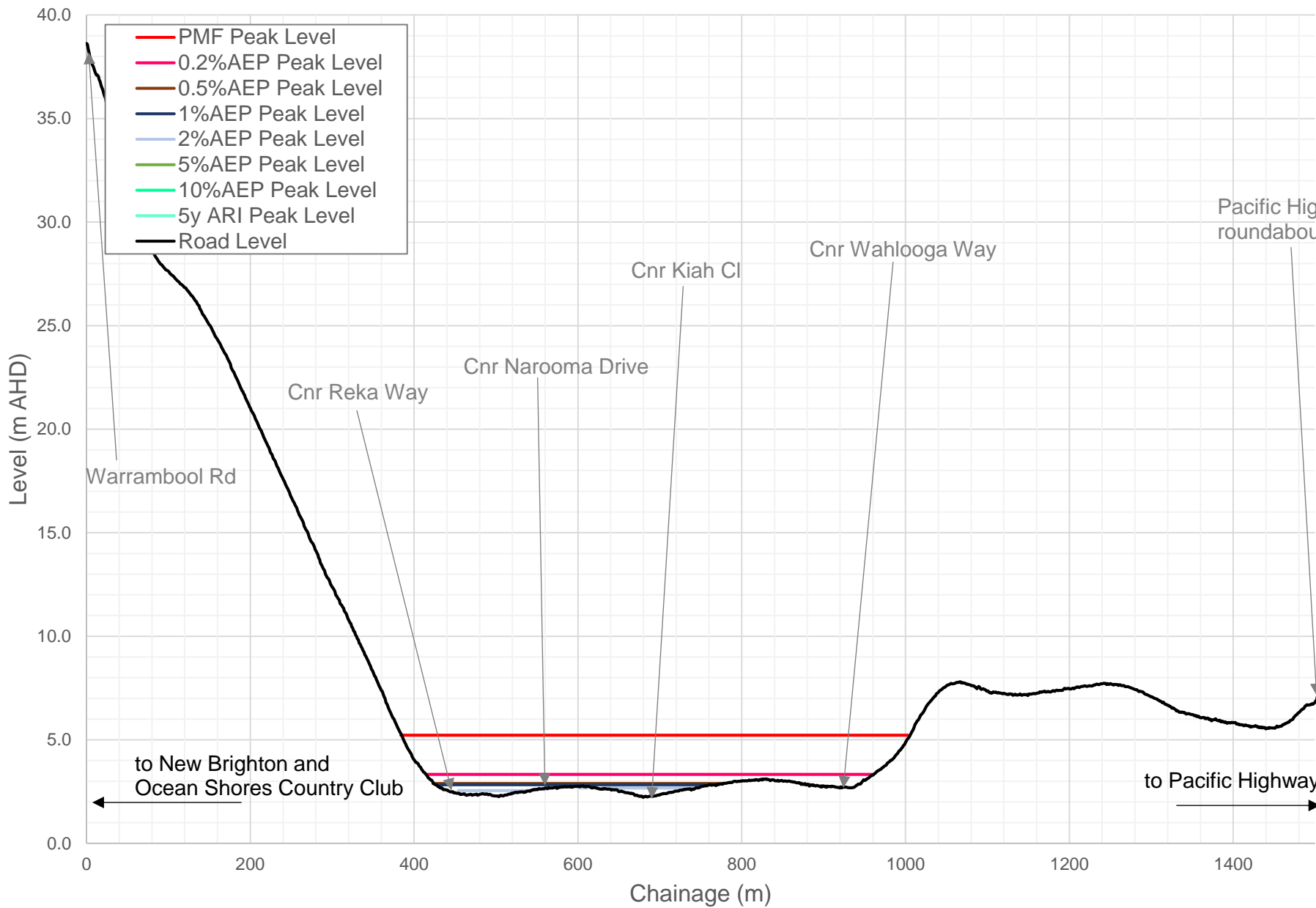


FIGURE J12
LONG PROFILE
OCEAN SHORES ORANA ROAD EVACUATION ROUTE

J:\Jobs\117098\Excel\Rate_River_Rise\South_Golden_Beach\South_Golden_Beach_Billinudgel_Gauge.xlsx

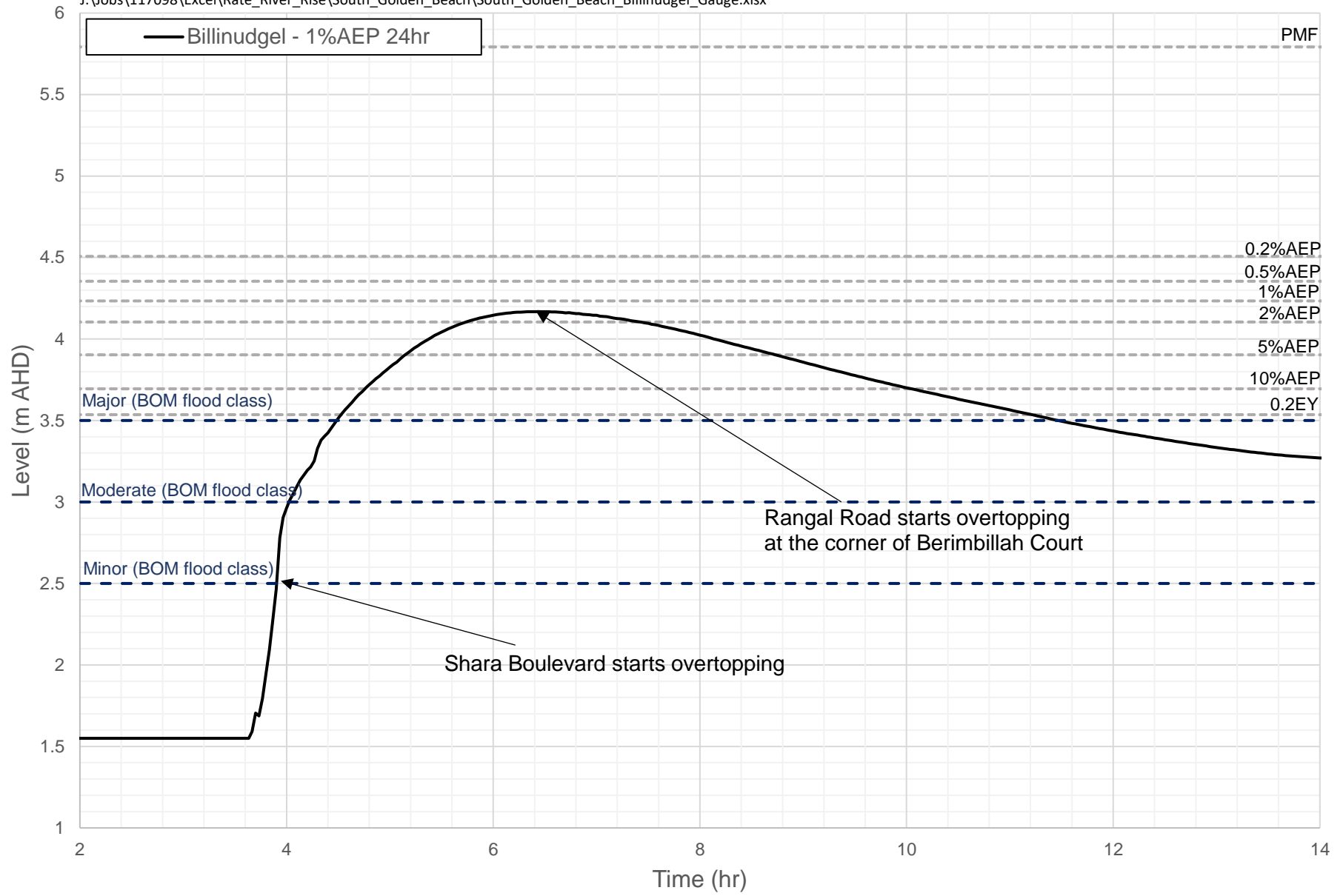


FIGURE J13
1%AEP DESIGN EVENT - EVACUATION ROUTE SOUTH GOLDEN BEACH
STAGE HYDROGRAPH AT BILLINUDGEL GAUGE

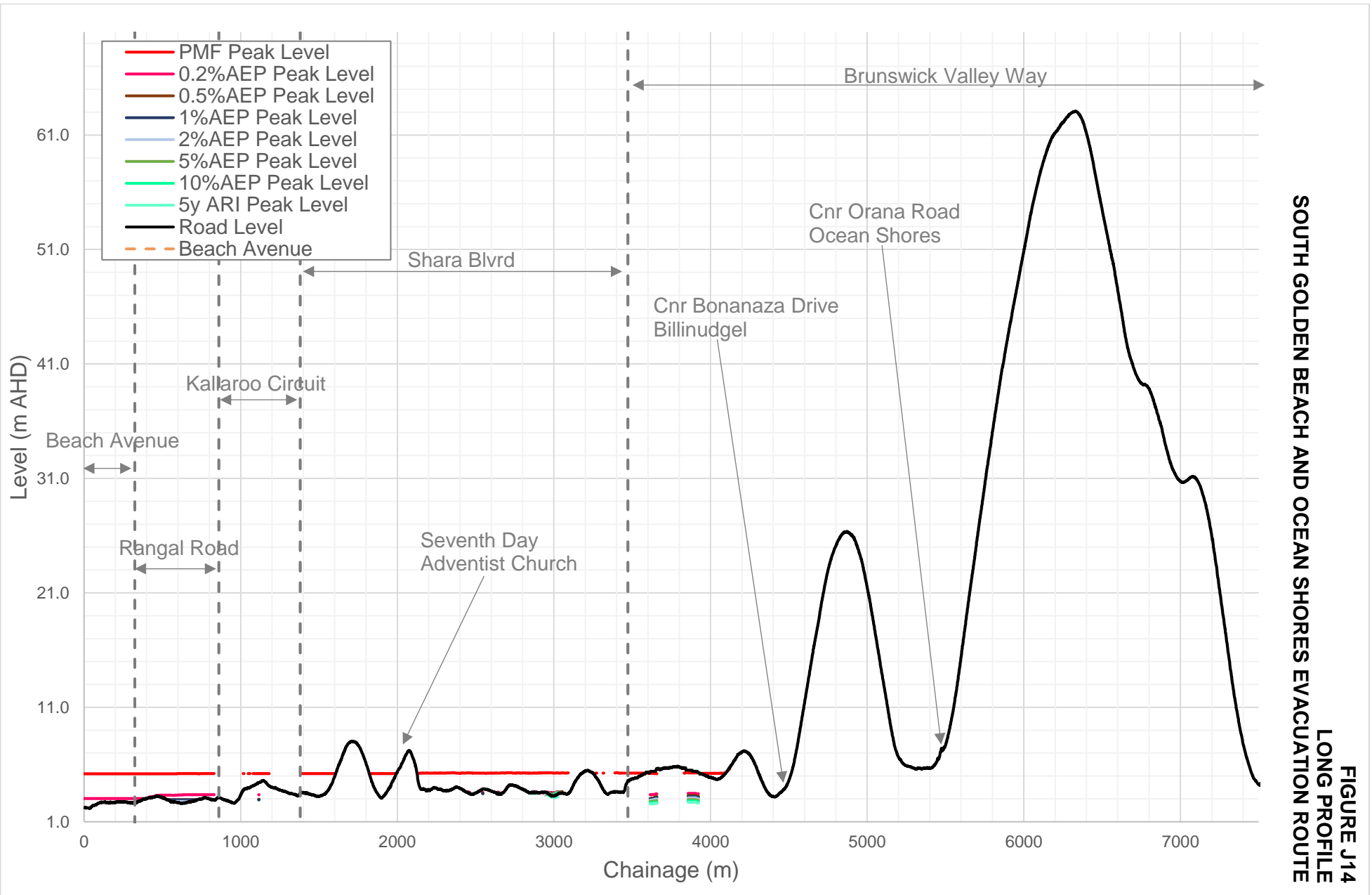


FIGURE J14
 LONG PROFILE
 SOUTH GOLDEN BEACH AND OCEAN SHORES EVACUATION ROUTE

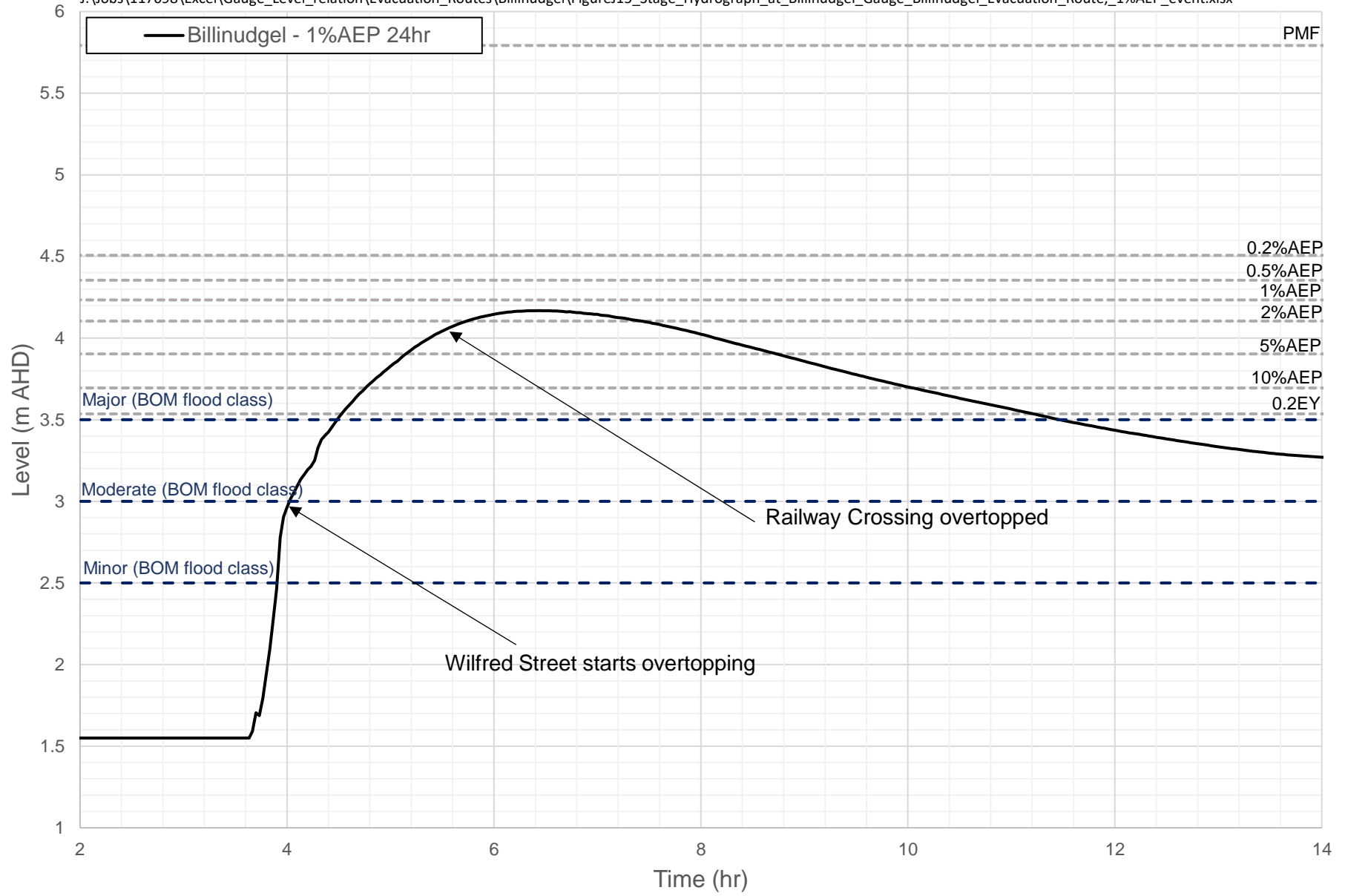
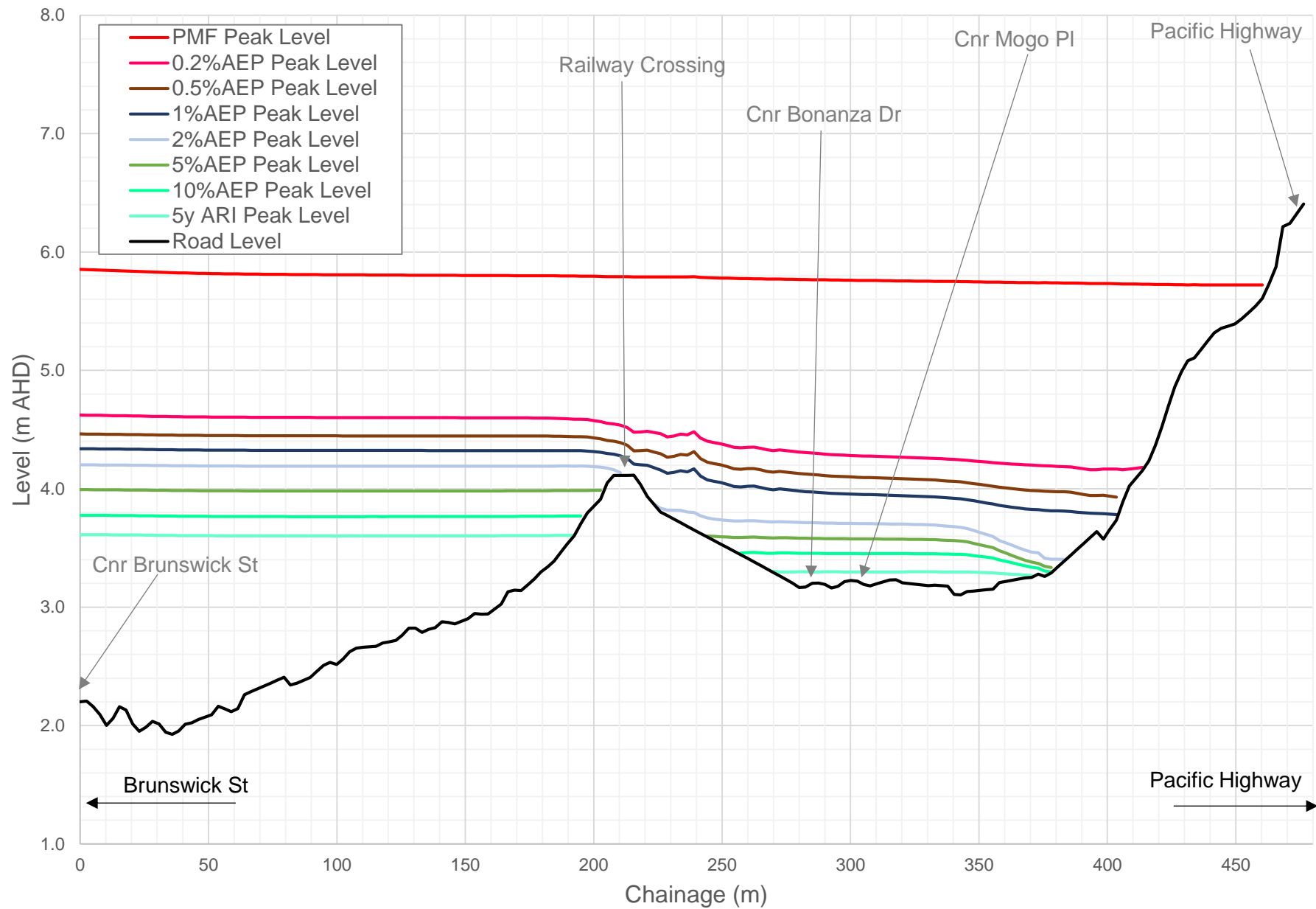
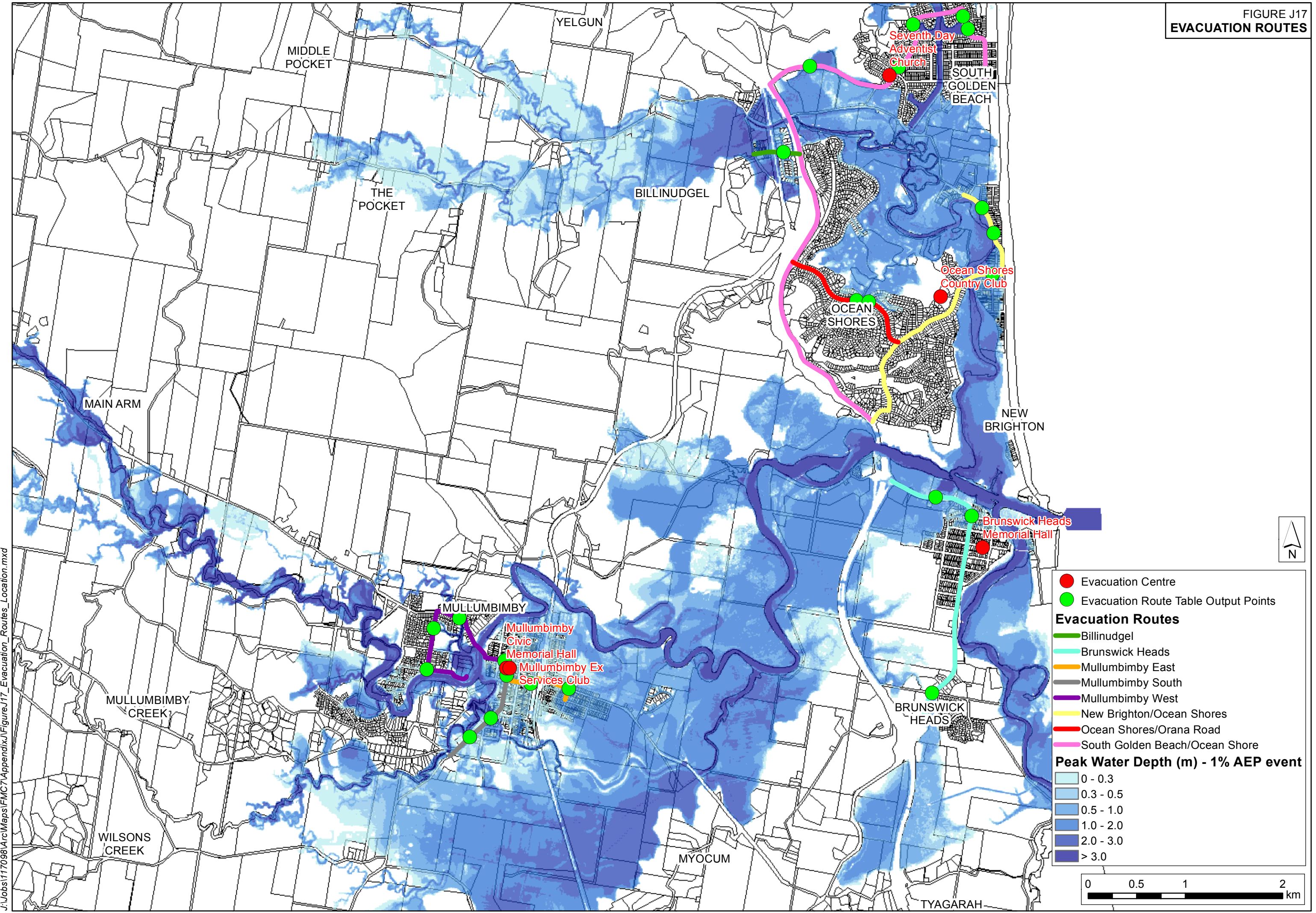


FIGURE J15
1%AEP DESIGN EVENT - EVACUATION ROUTE BILLINUDGEL
STAGE HYDROGRAPH AT BILLINUDGEL GAUGE



BILLINUGDEL WILFRED STREET EVACUATION ROUTE
 LONG PROFILE
 FIGURE J16

FIGURE J17
EVACUATION ROUTES



J:\Jobs\117098\ArcMaps\FMCT\Appendix\FigureJ17_Evacuation_Routes_Location.mxd

- Evacuation Centre
 - Evacuation Route Table Output Points
- Evacuation Routes**
- Billinudgel
 - Brunswick Heads
 - Mullumbimby East
 - Mullumbimby South
 - Mullumbimby West
 - New Brighton/Ocean Shores
 - Ocean Shores/Orana Road
 - South Golden Beach/Ocean Shore
- Peak Water Depth (m) - 1% AEP event**
- 0 - 0.3
 - 0.3 - 0.5
 - 0.5 - 1.0
 - 1.0 - 2.0
 - 2.0 - 3.0
 - > 3.0

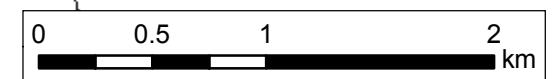


Table J1: Level at Federation Bridge Gauge when road overtops - Brunswick Heads Evacuation Route

Brunswick Heads																										
Street Name	First Event	Rate of Rise 1%AEP (cm/min)	Level at Federation Bridge Gauge when road overtops																							
			0.2EY			10%AEP			5%AEP			2%AEP			1%AEP			0.5%AEP			0.2%AEP			PMF		2017
			12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	
Tweed Street at Harbour	2%AEP	0.31	/	/	/	/	/	/	/	/	/	4.32	/	4.72	4.64	4.36	5.00	4.88	4.81	5.27	5.16	5.26	5.53	6.05	6.66	/
Tweed Street Cnr Fawcett Street	1%AEP	0.52	/	/	/	/	/	/	/	/	/	/	/	/	/	/	4.82	4.55	4.21	4.94	4.84	4.74	5.42	6.57	6.67	/
Bayside Way	PMF	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	6.58	6.80	/

Table J2: Level at Federation Bridge Gauge when road overtops - Mullumbimby West Evacuation Route

Mullumbimby West																															
Street Name	First Event	Rate of Rise 1%AEP (cm/min)	Level at Federation Bridge Gauge when road overtops																												
			0.2EY			10%AEP			5%AEP			2%AEP			1%AEP			0.5%AEP			0.2%AEP			PMF		2017					
			12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr						
Riverside Drive	5%AEP	0.21	/	/	/	/	/	/	/	/	/	/	/	/	/	/	4.95	4.13	4.96	4.87	5.04	4.96	4.79	2.64	4.81	4.76	4.87	4.56	4.38	5.07	
Pine Avenue	0.5%AEP	0.00	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	5.47	4.90	5.43	5.31	5.46	4.56	4.38	/
Main Arm Road	0.2%AEP	0.00	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	5.43	5.59	5.22	4.56	4.38	/	/	
Tincogan St	1%AEP	0.27	/	/	/	/	/	/	/	/	/	/	/	/	/	/	5.06	3.88	5.13	5.41	4.08	5.40	5.39	3.20	5.76	5.97	5.11	/	/		

Table J3: Level at Federation Bridge Gauge when road overtops - Mullumbimby East Evacuation Route

Mullumbimby East																													
Street Name	First Event	Rate of Rise 1%AEP (cm/min)	Level at Federation Bridge Gauge when road overtops																										
			0.2EY			10%AEP			5%AEP			2%AEP			1%AEP			0.5%AEP			0.2%AEP			PMF		2017			
			12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr				
Argyle Street	1%AEP	0.21	/	/	/	/	/	/	/	/	/	/	/	/	/	/	5.04	2.35	2.05	5.39	5.27	5.50	2.94	6.37	6.67	5.01	/	/	
Burringbar Street	1%AEP	0.01	/	/	/	/	/	/	/	/	/	/	/	/	/	/	5.24	5.22	5.23	5.45	5.39	5.45	5.57	3.29	5.84	5.97	/	/	
Dalley Street	2%AEP	0.35	/	/	/	/	/	/	/	/	/	/	/	/	/	4.98	4.98	5.00	5.08	5.01	4.99	4.95	4.99	5.07	4.90	5.00	4.70	4.53	4.98

Table J4: Level at Federation Bridge Gauge when road overtops - Mullumbimby South Evacuation Route

Mullumbimby South																													
Street Name	First Event	Rate of Rise 1%AEP (cm/min)	Level at Federation Bridge Gauge when road overtops																										
			0.2EY			10%AEP			5%AEP			2%AEP			1%AEP			0.5%AEP			0.2%AEP			PMF		2017			
			12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr				
Jubilee Avenue High School	10%AEP	1.12	/	/	4.35	/	3.16	4.48	4.49	4.47	4.50	4.38	4.42	4.49	4.49	4.21	4.51	4.49	4.15	4.29	4.51	4.59	4.37	4.56	4.38	4.51	/	/	
Jubilee Avenue Swimming Pool	5%AEP	0.92	/	/	/	/	3.46	4.19	4.43	4.72	4.71	4.72	4.72	4.70	4.67	4.73	4.72	4.60	4.79	4.73	4.58	4.76	4.52	4.70	4.53	4.72	/	/	
Dalley Street	2%AEP	0.35	/	/	/	/	/	/	/	/	/	/	/	/	/	5.01	4.99	5.00	5.08	5.01	5.01	5.08	5.00	5.07	4.96	5.00	4.56	4.38	5.01

Table J5: Level at Billinudgel Gauge when road overtops - New Brighton Evacuation Route

New Brighton																											
Street Name	First Event	Rate of Rise 1%AEP (cm/min)	Level at Billinudgel Gauge when road overtops																								
			0.2EY			10%AEP			5%AEP			2%AEP			1%AEP			0.5%AEP			0.2%AEP			PMF		2017	
			12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr		
River St cnr Ocean Avenue	0.2EY	0.25	3.05	2.85	3.54	/	3.11	3.65	3.66	3.44	3.06	3.97	3.78	3.44	4.12	4.14	3.61	4.20	4.32	3.96	4.36	4.50	4.16	5.09	4.94	3.88	
Rangal Rd Cnr Pacific St	0.2EY	0.25	/	/	3.49	/	/	3.68	3.55	3.41	3.89	3.96	3.71	3.46	4.13	4.13	3.62	4.21	4.32	3.91	4.36	4.51	4.13	5.21	5.19	3.85	
Strand Avenue	2%AEP	0.47	/	/	/	/	/	/	/	/	/	3.76	3.61	4.07	4.03	3.81	4.23	4.22	4.15	3.49	4.35	4.37	3.78	5.53	5.76	4.28	

Table J6: Level at Billinudgel Gauge when road overtops - Ocean Shores Evacuation Route

Ocean Shores																										
Street Name	First Event	Rate of Rise 1%AEP (cm/min)	Level at Billinudgel Gauge when road overtops																							
			0.2EY			10%AEP			5%AEP			2%AEP			1%AEP			0.5%AEP			0.2%AEP			PMF		2017
			12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	
Orana Rd Cnr Narooma Dr	2%AEP	0.18	/	/	/	/	/	/	/	/	/	/	/	3.90	/	/	4.10	3.99	3.64	4.33	4.20	4.02	4.48	1.55	1.55	1.55
Orana Rd Cnr Kiah Cl	2%AEP	0.97	/	/	/	/	/	/	/	/	/	3.56	3.50	4.08	4.03	3.56	4.17	4.22	4.12	4.02	4.39	4.46	3.53	1.55	1.55	4.30

Table J7: Level at Billinudgel Gauge when road overtops - South Golden Beach Evacuation Route

South Golden Beach																												
Street Name	First Event	Rate of Rise 1%AEP (cm/min)	Level at Billinudgel Gauge when road overtops																									
			0.2EY			10%AEP			5%AEP			2%AEP			1%AEP			0.5%AEP			0.2%AEP			PMF		2017		
			12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr			
Rangal Rd Cnr Berimbillah Ct	2%AEP	0.43	/	/	/	/	/	/	/	/	/	/	/	/	4.09	4.01	3.74	4.23	4.26	4.21	4.34	4.32	4.26	4.23	5.52	5.63	3.86	
Rangal Rd Cnr Barkala Ct	0.2%AEP	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	4.46	5.44	5.79	/
Kallaroo Circuit	PMF	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	5.23	5.53	/	
Shara Blvd Cnr Koloro Way	PMF	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	5.24	5.47	4.29	
Shara Blvd close Soccer Club	10%AEP	0.25	/	/	/	/	/	3.17	/	3.22	2.82	3.75	3.26	2.84	4.08	3.31	2.71	4.26	3.66	2.62	4.36	4.50	4.50	4.46	4.54	4.29		

Table J8: Level at Billinudgel Gauge when road overtops - Billinudgel Evacuation Route

Billinudgel																										
Street Name	First Event	Rate of Rise 1%AEP (cm/min)	Level at Billinudgel Gauge when road overtops																							
			0.2EY			10%AEP			5%AEP			2%AEP			1%AEP			0.5%AEP			0.2%AEP			PMF		2017
			12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	36hr	12hr	24hr	
Wilfred St - Billinudgel Pub	0.2EY	1.72	2.84	2.81	2.91	2.85	2.72	2.86	2.80	2.24	2.82	2.79	2.05	2.75	2.88	1.94	2.85	2.83	2.86	2.46	2.31	2.42	1.86	1.78	1.73	2.83