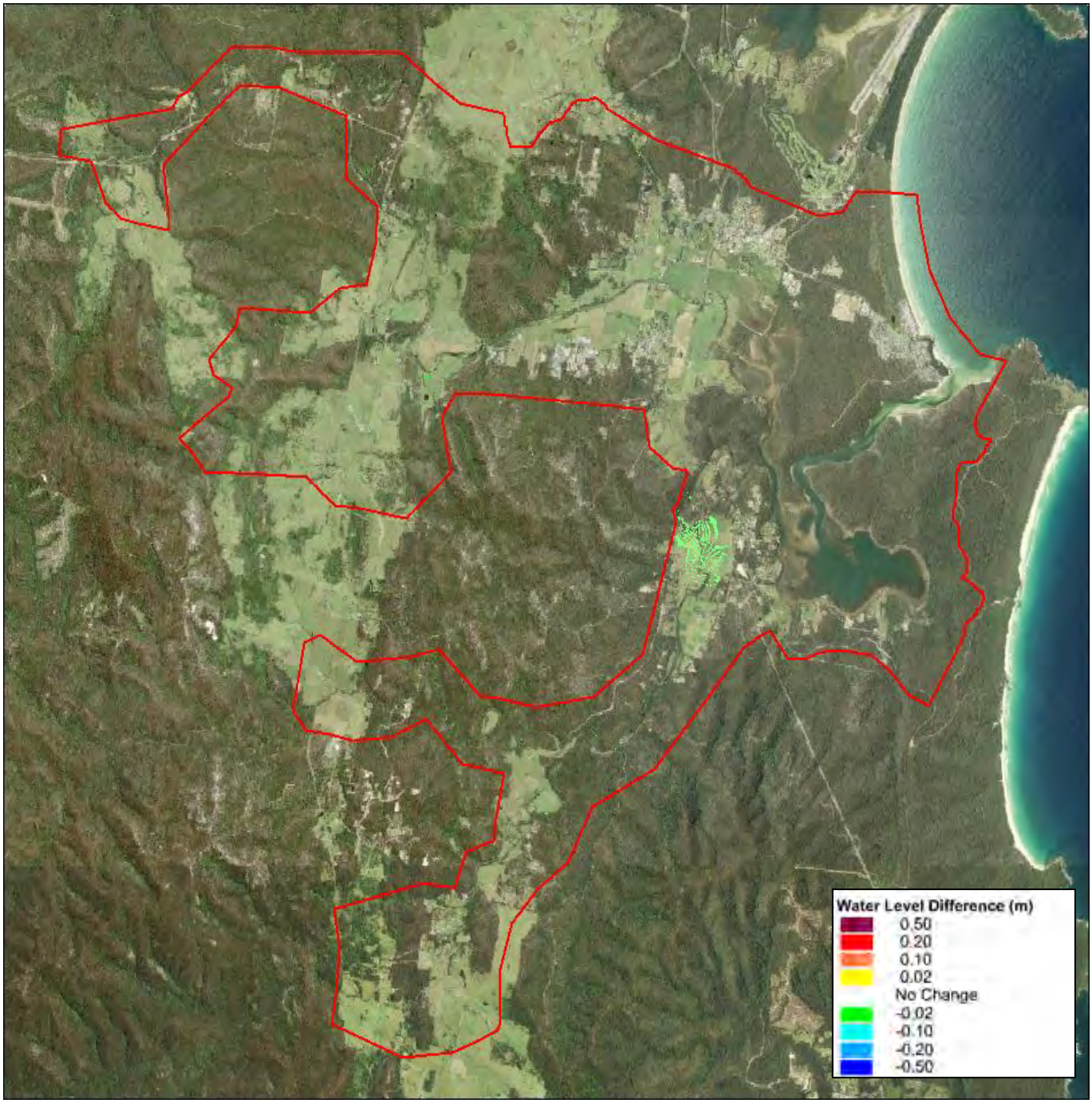
APPENDIX K
SENSITIVITY ANALYSIS DIFFERENCE MAPS

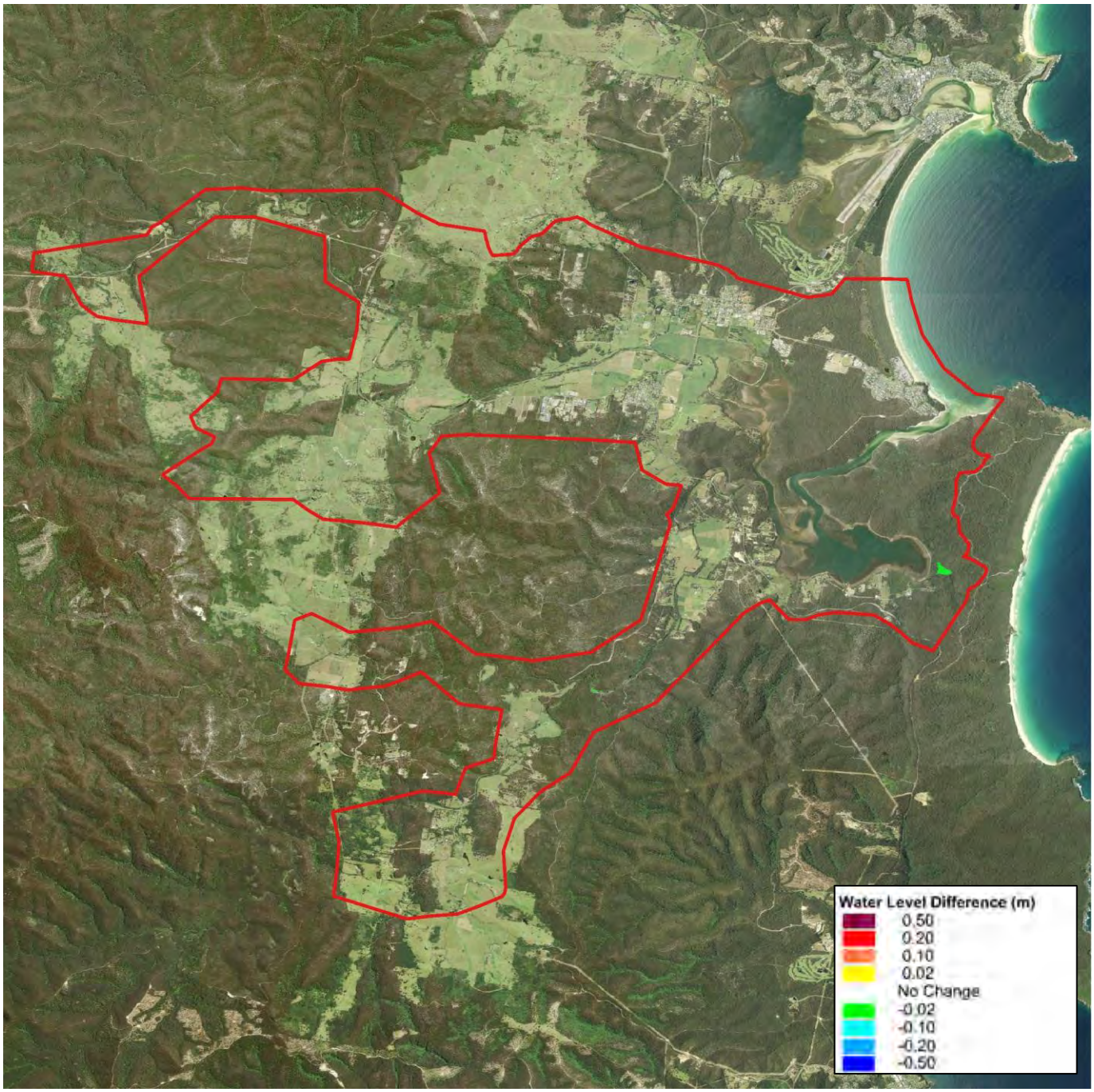
Initial Loss

Initial loss increased by 20%

1% AEP

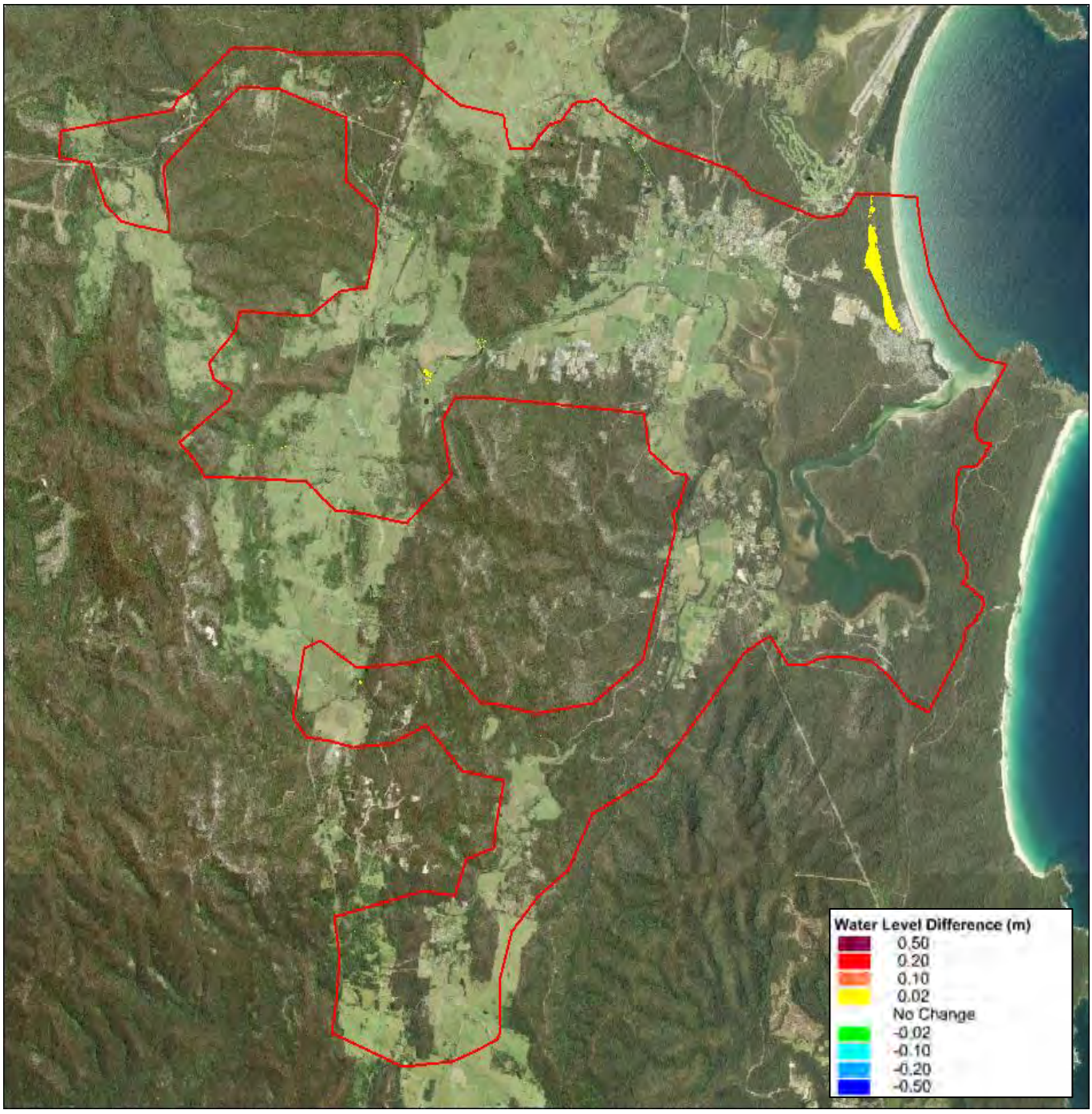


5% AEP

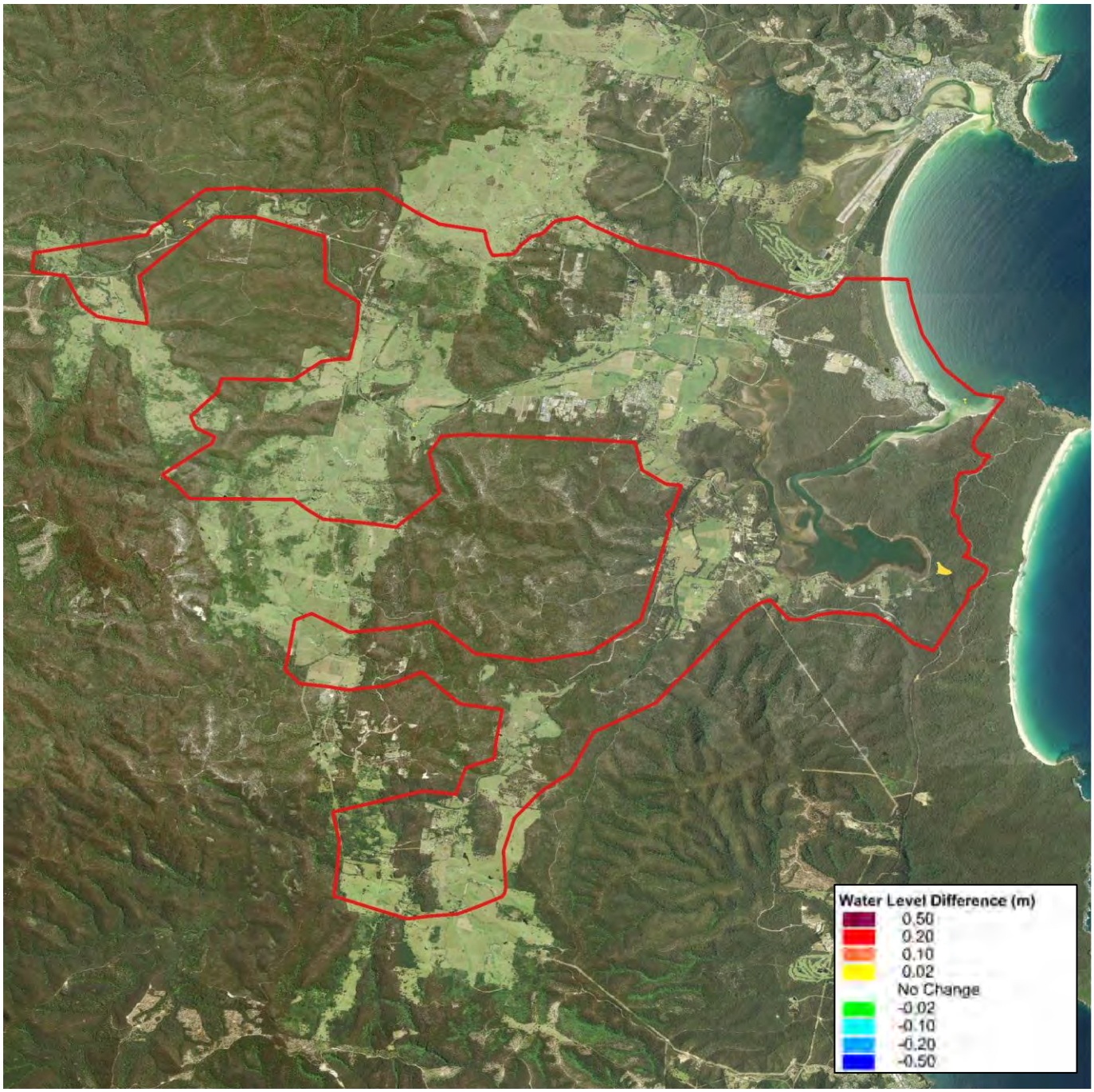

Water Level Difference (m)
0.50
0.20
0.10
0.02
No Change
-0.02
-0.10
-0.20
-0.50

Initial loss reduced by 20%

1% AEP



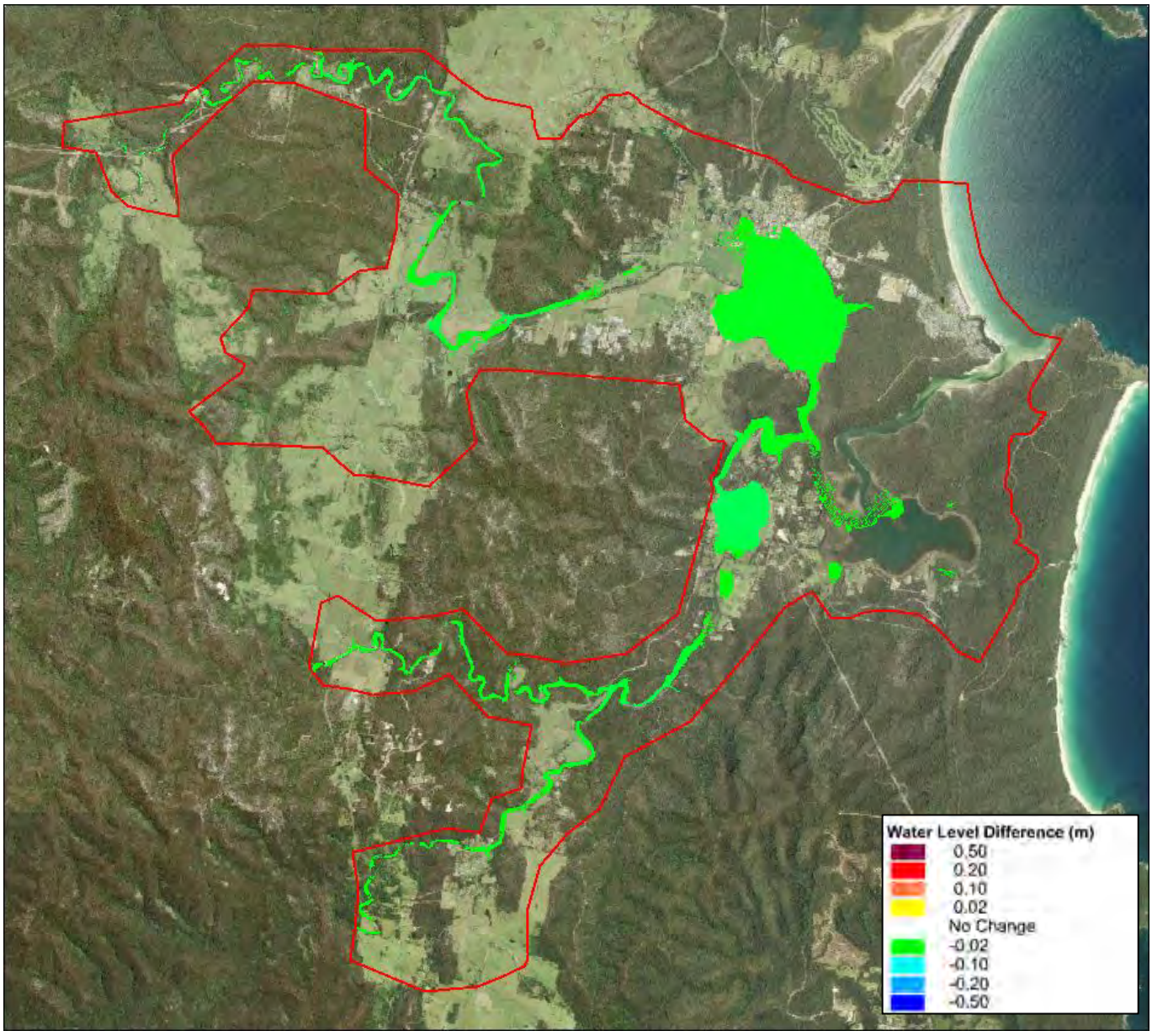
5% AEP


Water Level Difference (m)
0.50
0.20
0.10
0.02
No Change
-0.02
-0.10
-0.20
-0.50

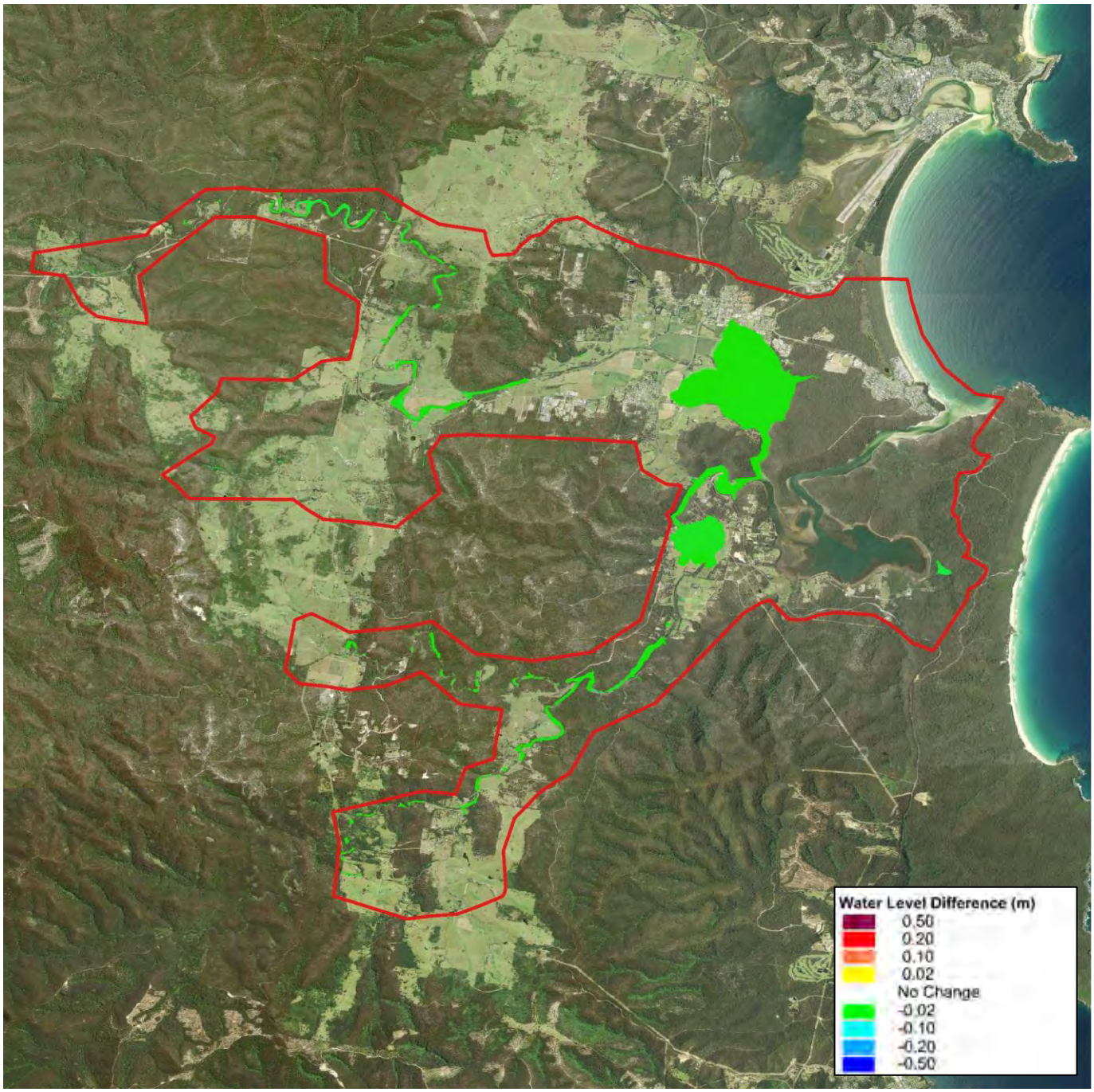
Continuing Loss Rate

Continuing loss rate increased by 20%

1% AEP

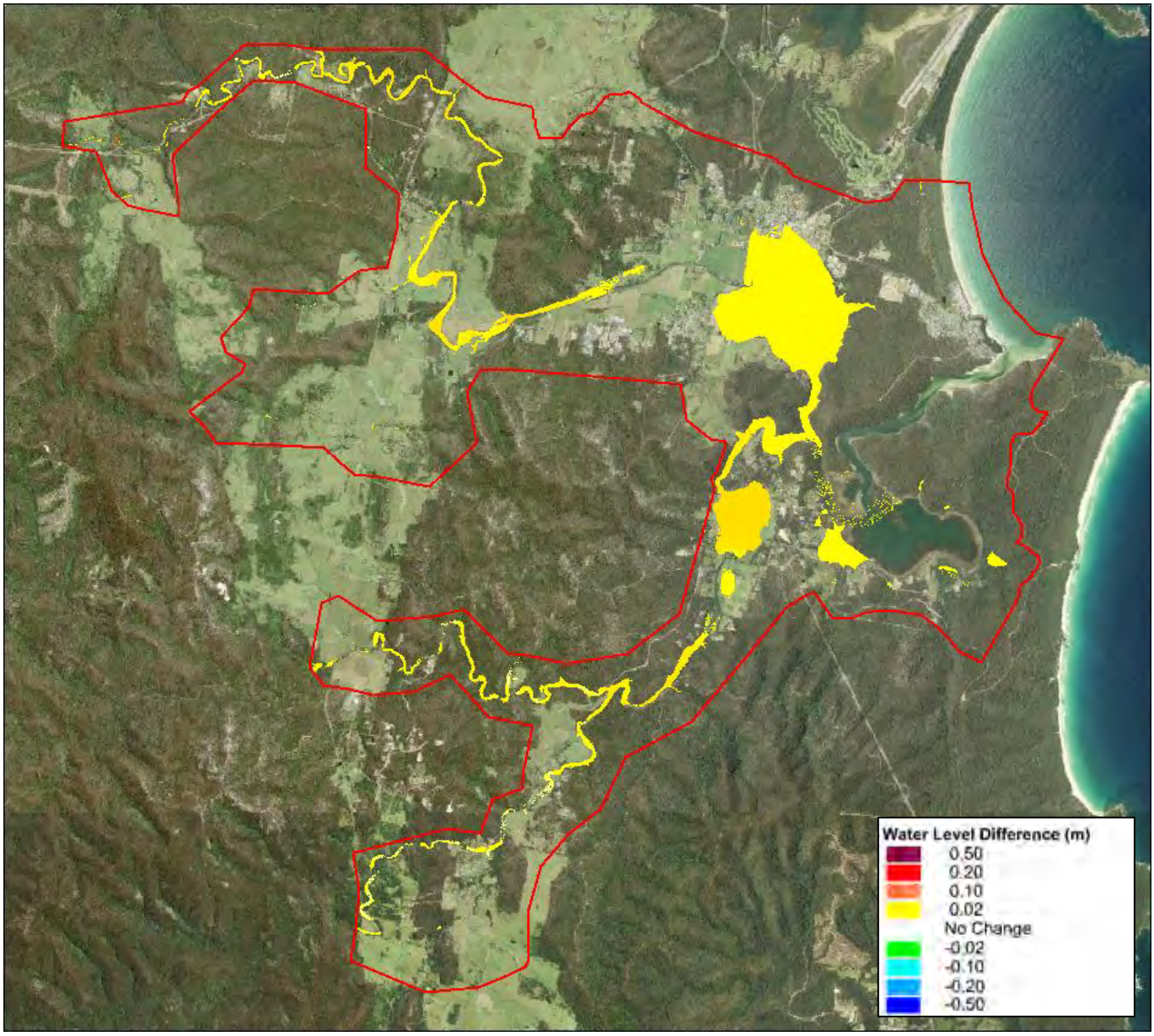


5% AEP

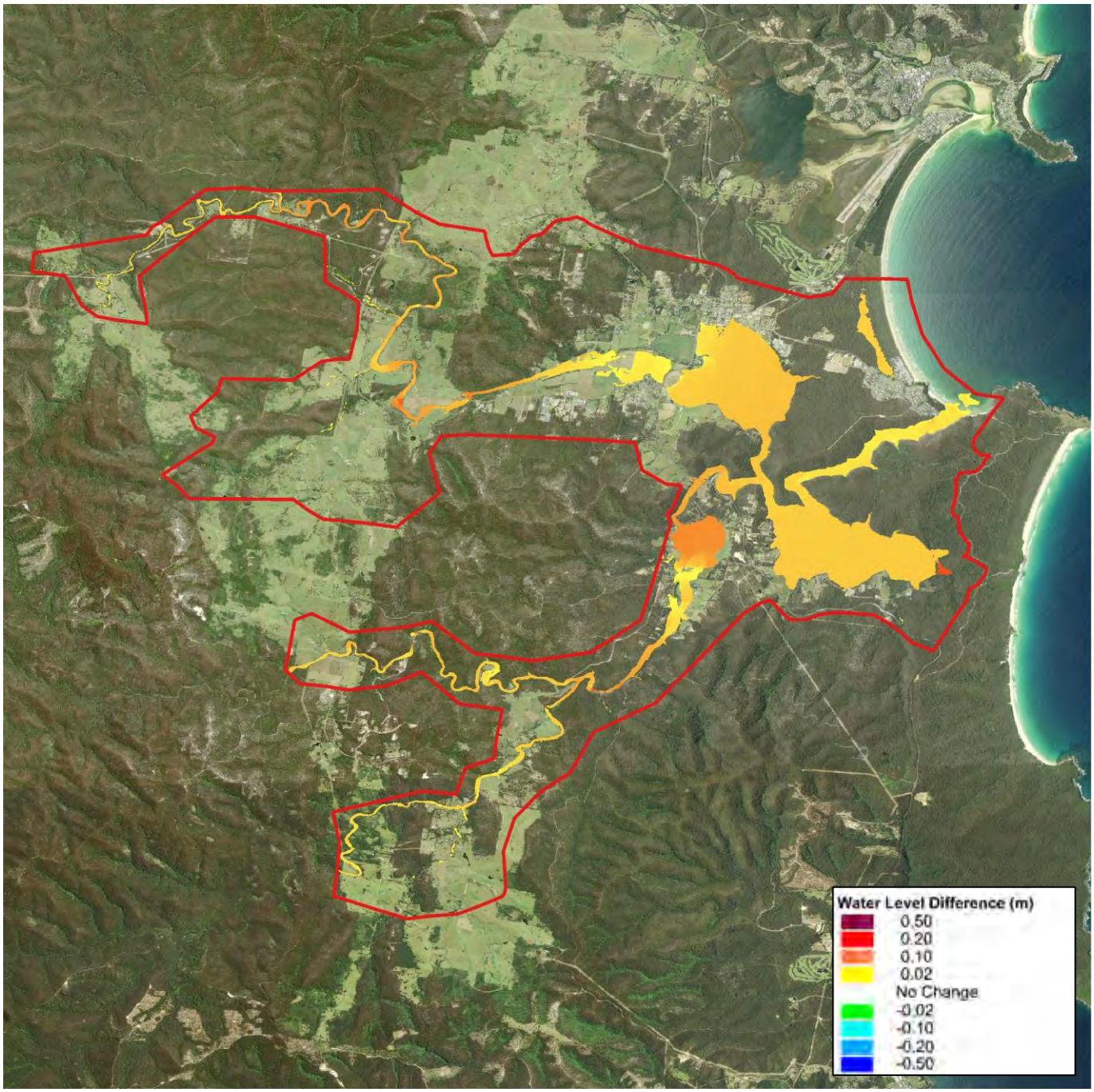

Water Level Difference (m)
0.50
0.20
0.10
0.02
No Change
-0.02
-0.10
-0.20
-0.50

Continuing loss rate reduced by 20%

1% AEP



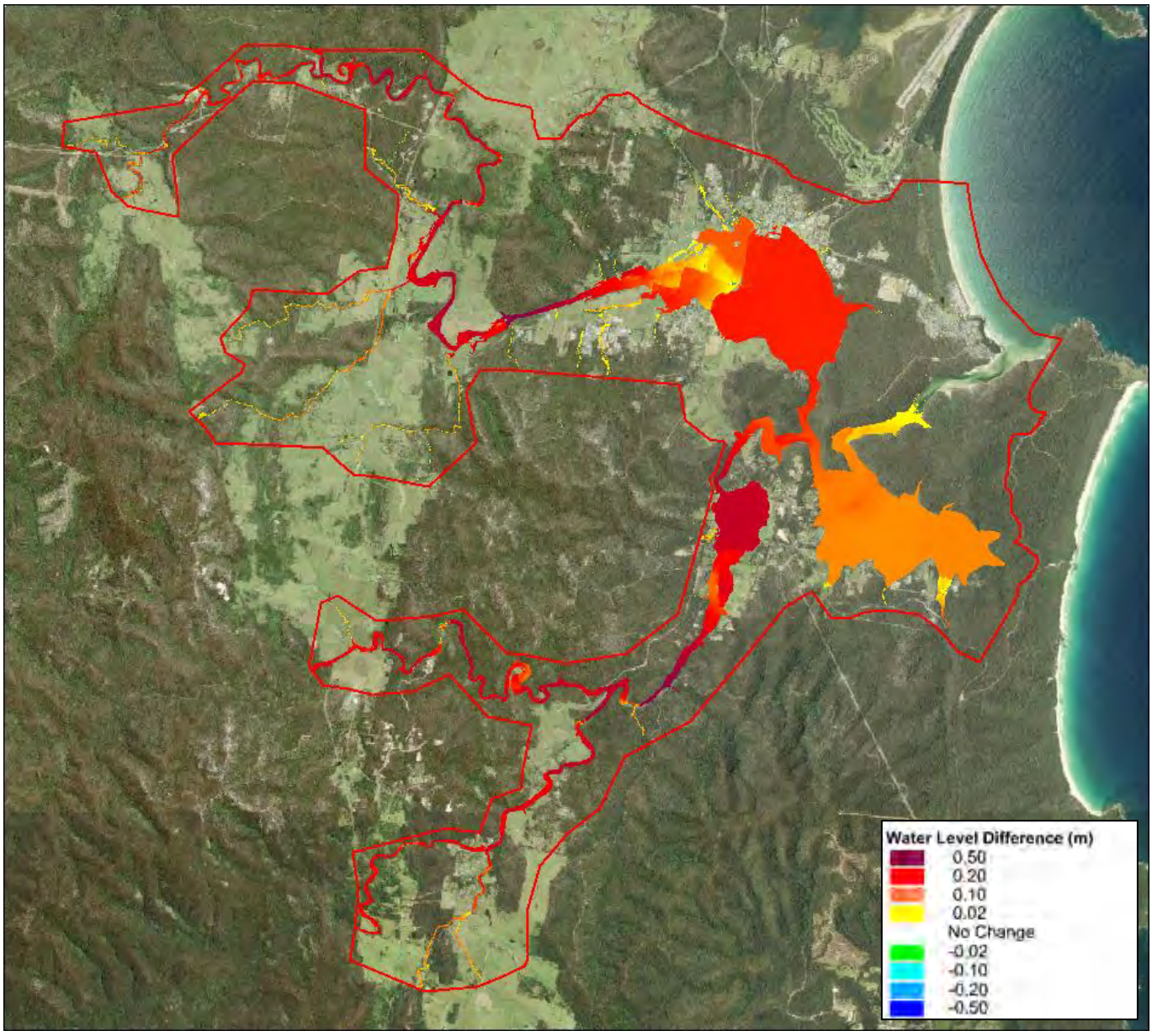
5% AEP


Water Level Difference (m)
0.50
0.20
0.10
0.02
No Change
-0.02
-0.10
-0.20
-0.50

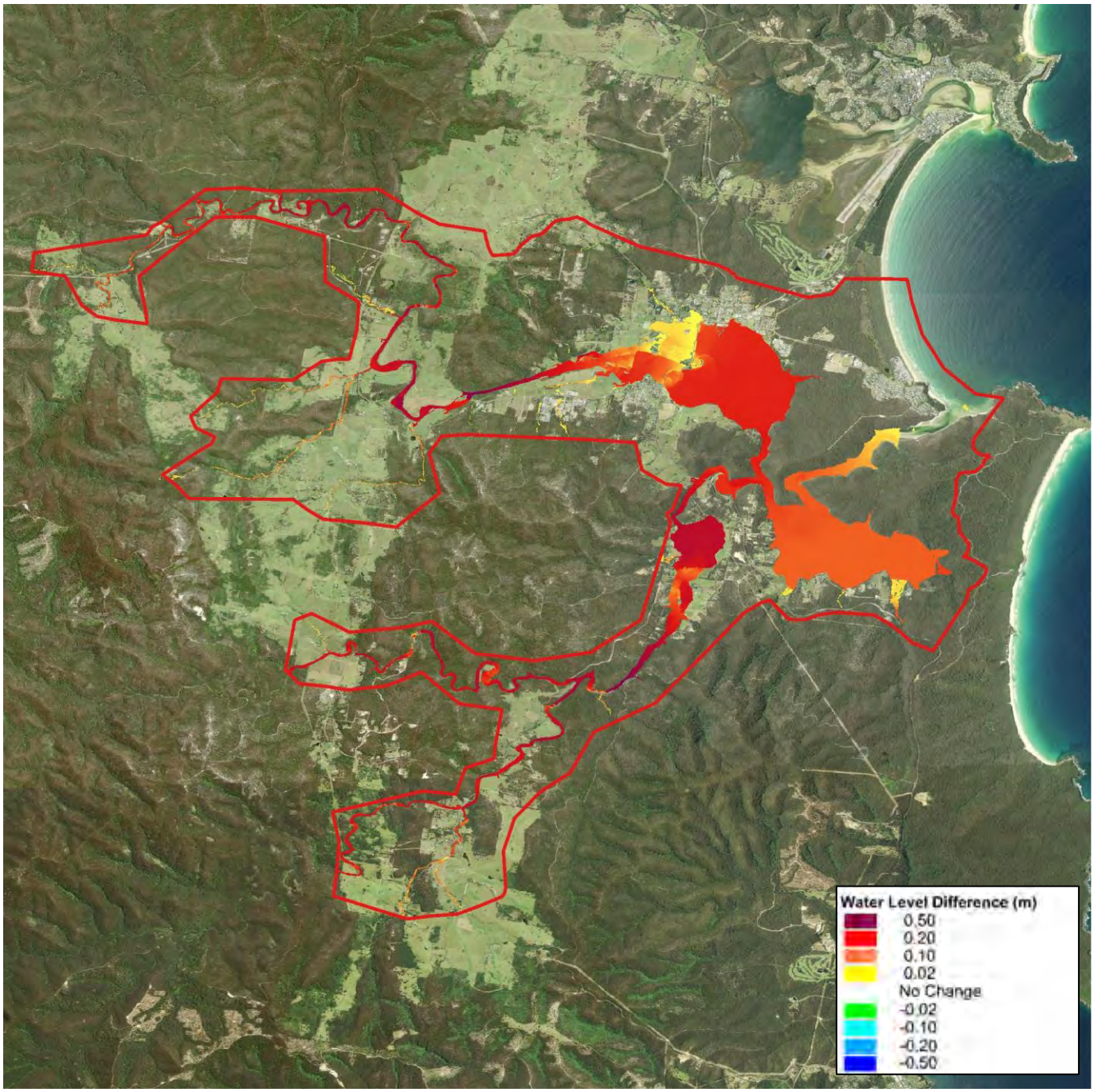
Manning's "n" Roughness

Manning's "n" increased by 20%

1% AEP

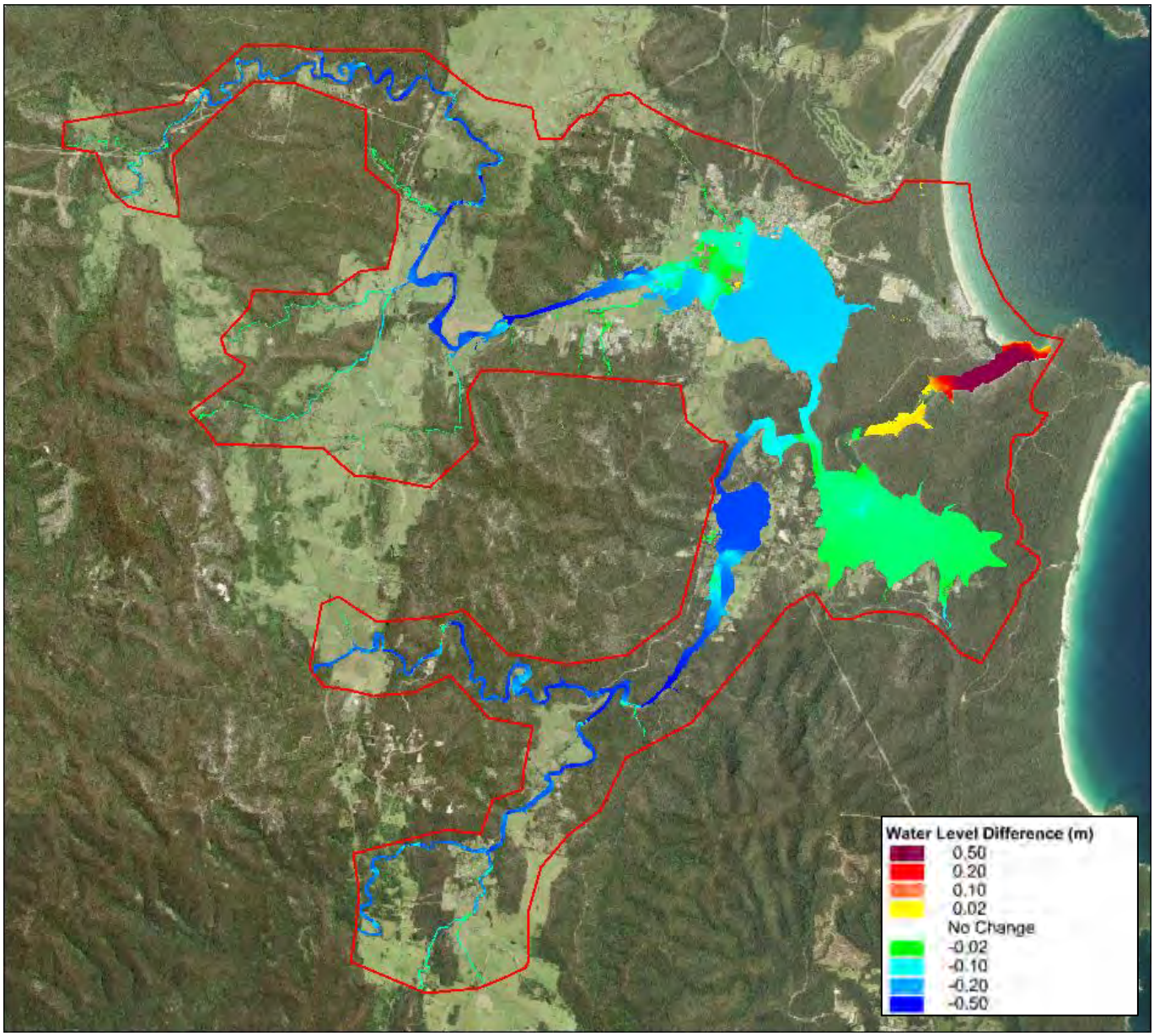


5% AEP

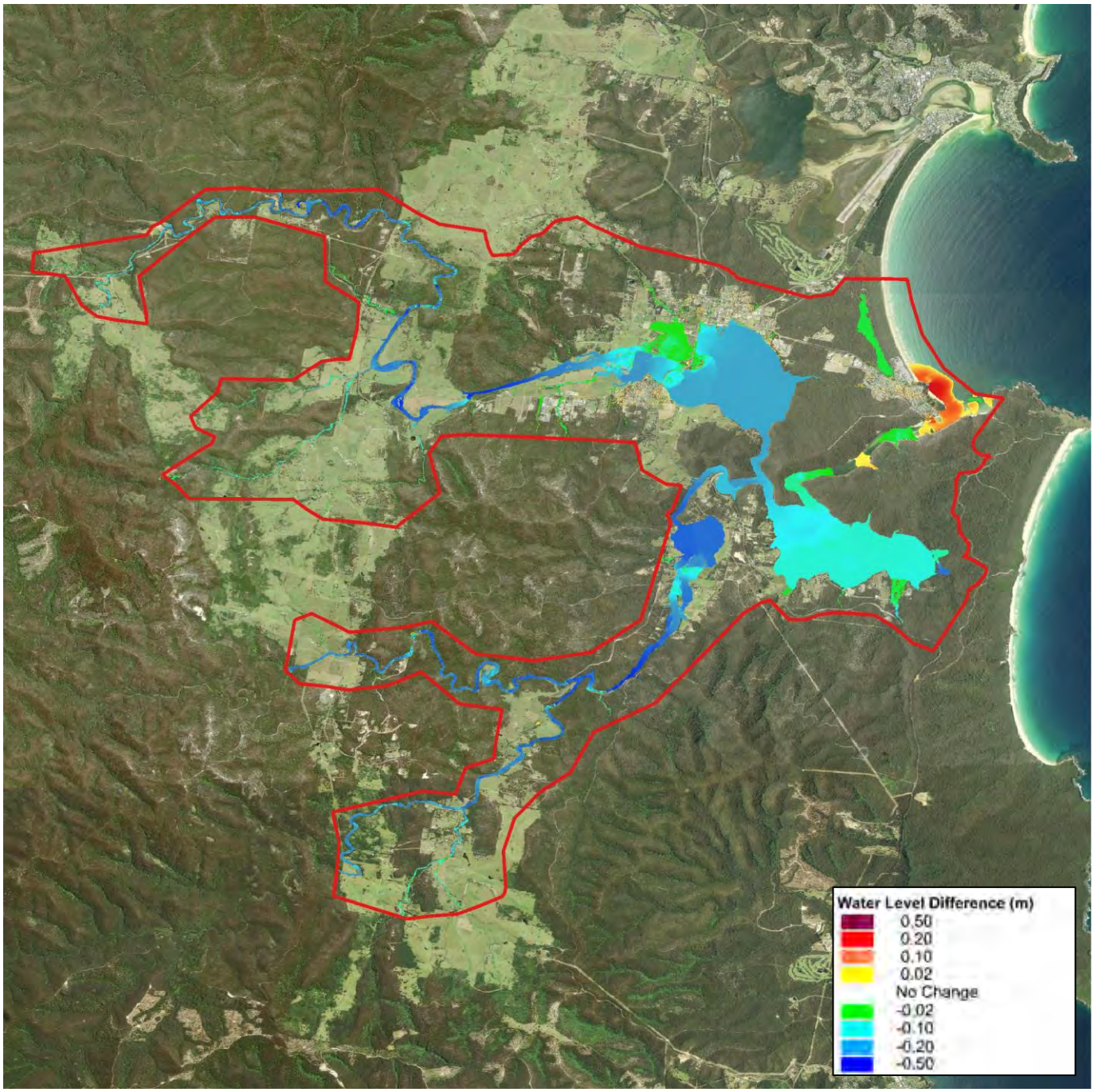

Water Level Difference (m)
0.50
0.20
0.10
0.02
No Change
-0.02
-0.10
-0.20
-0.50

Manning's "n" reduced by 20%

1% AEP



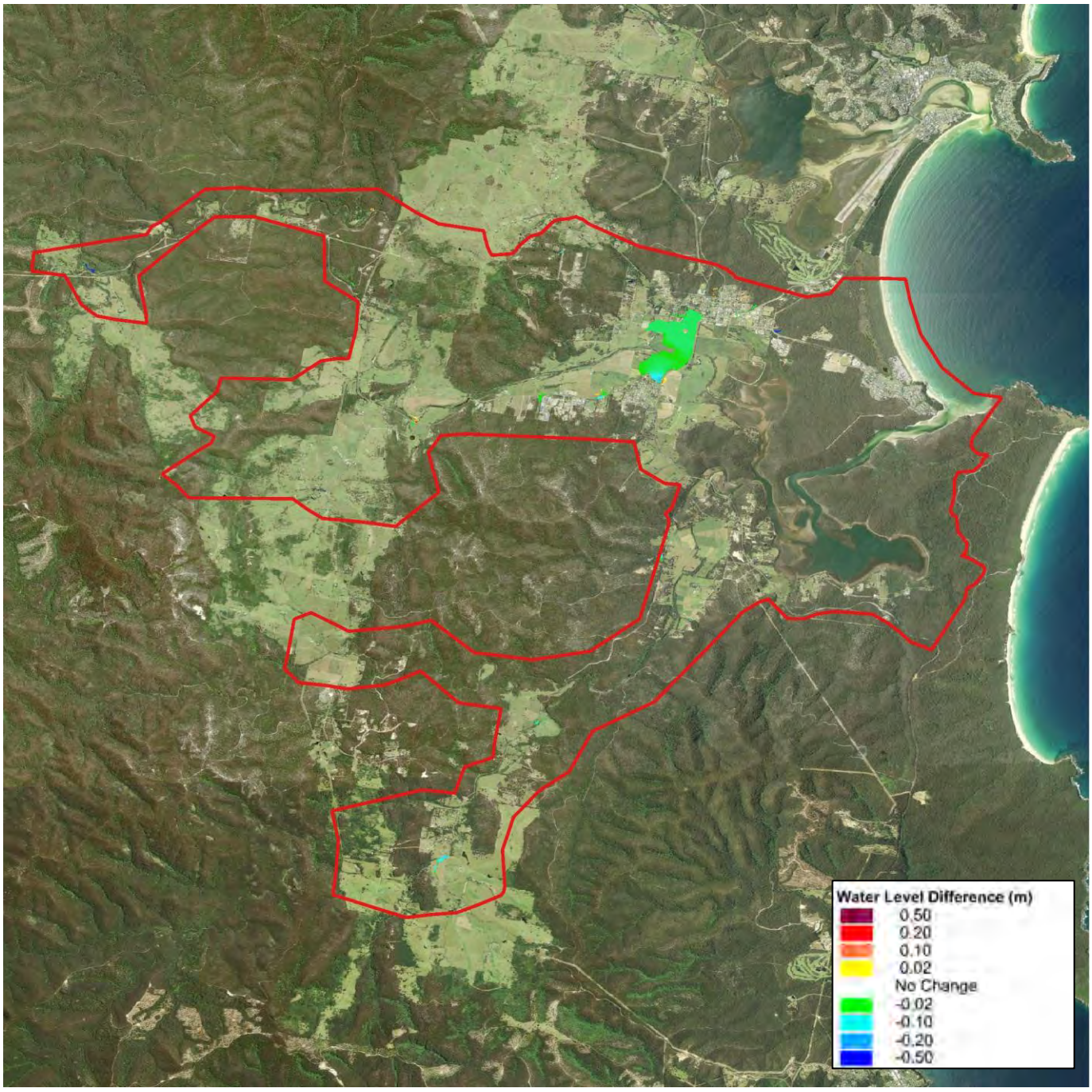
5% AEP


Water Level Difference (m)
0.50
0.20
0.10
0.02
No Change
-0.02
-0.10
-0.20
-0.50

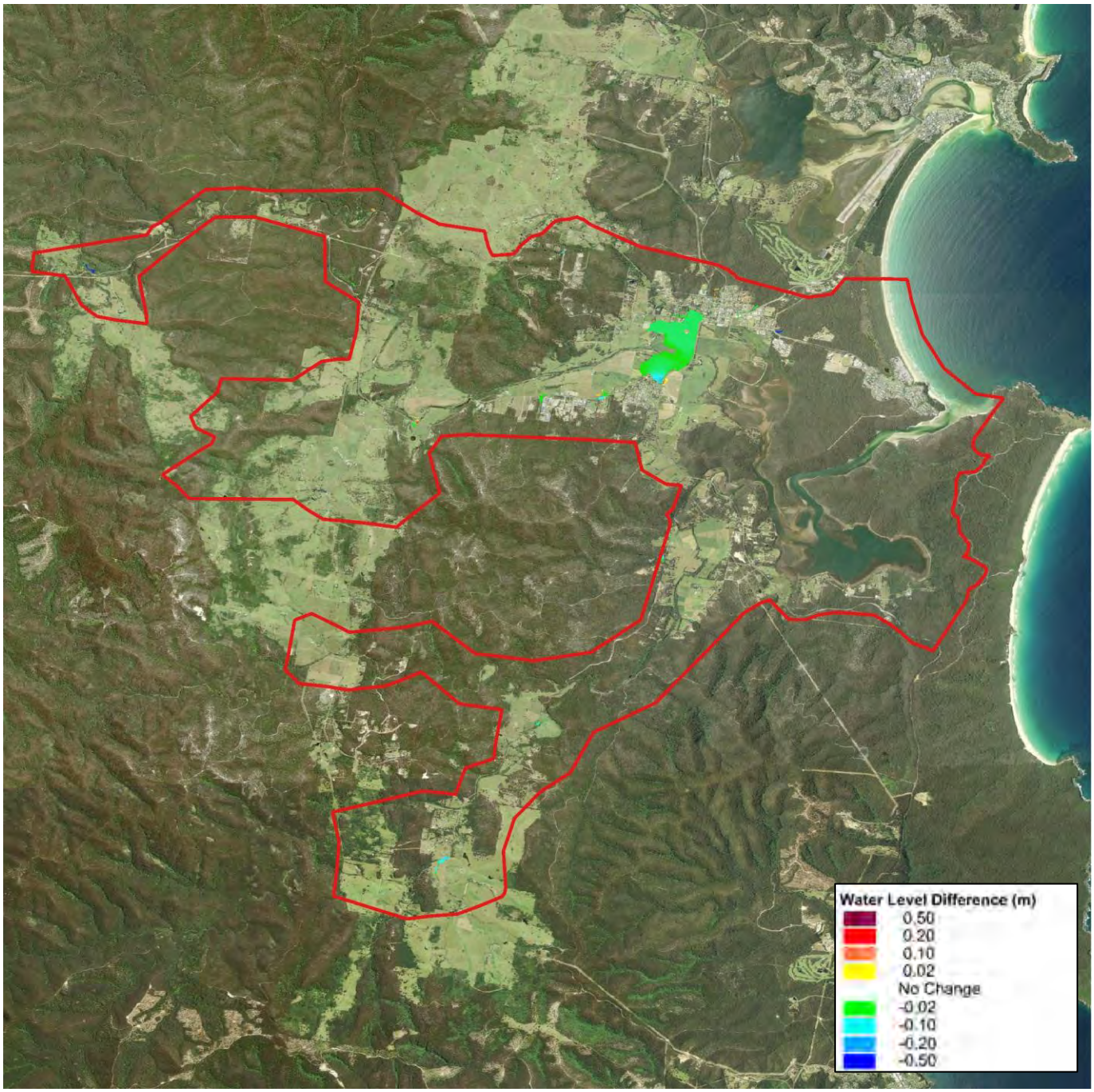
Blockage

No blockage

1% AEP

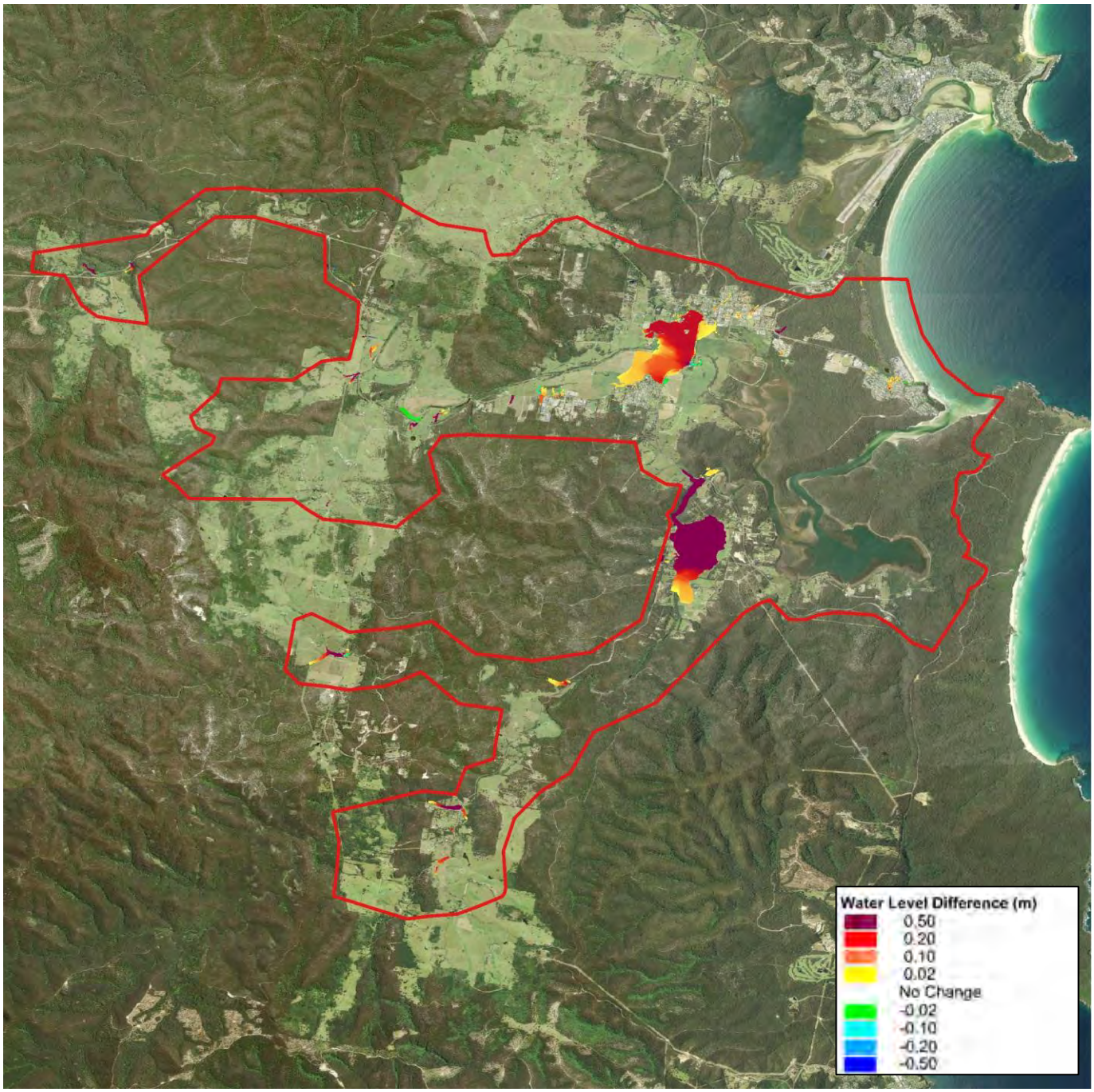


5% AEP

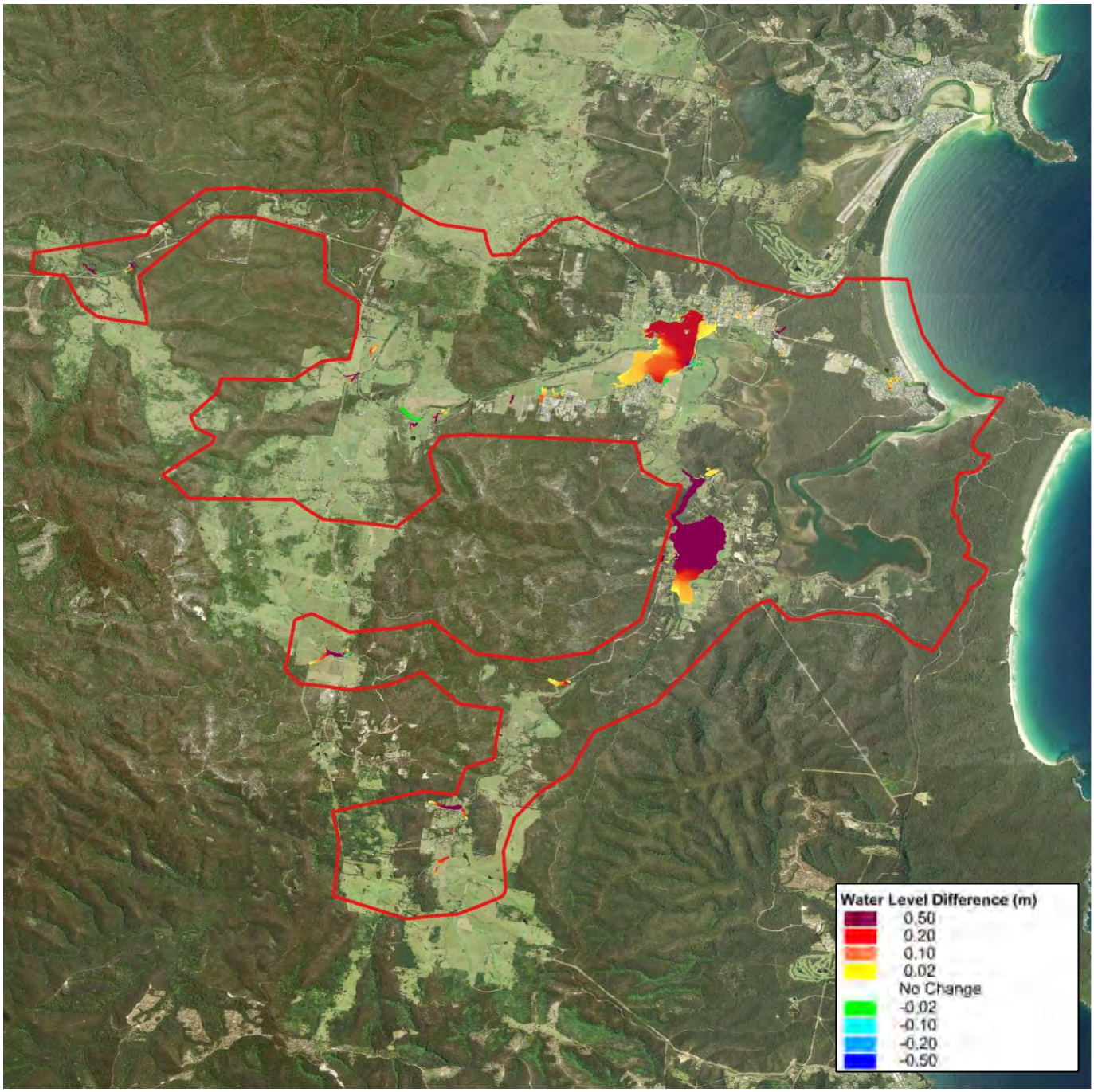

Water Level Difference (m)
0.50
0.20
0.10
0.02
No Change
-0.02
-0.10
-0.20
-0.50

Severe Blockage

1% AEP

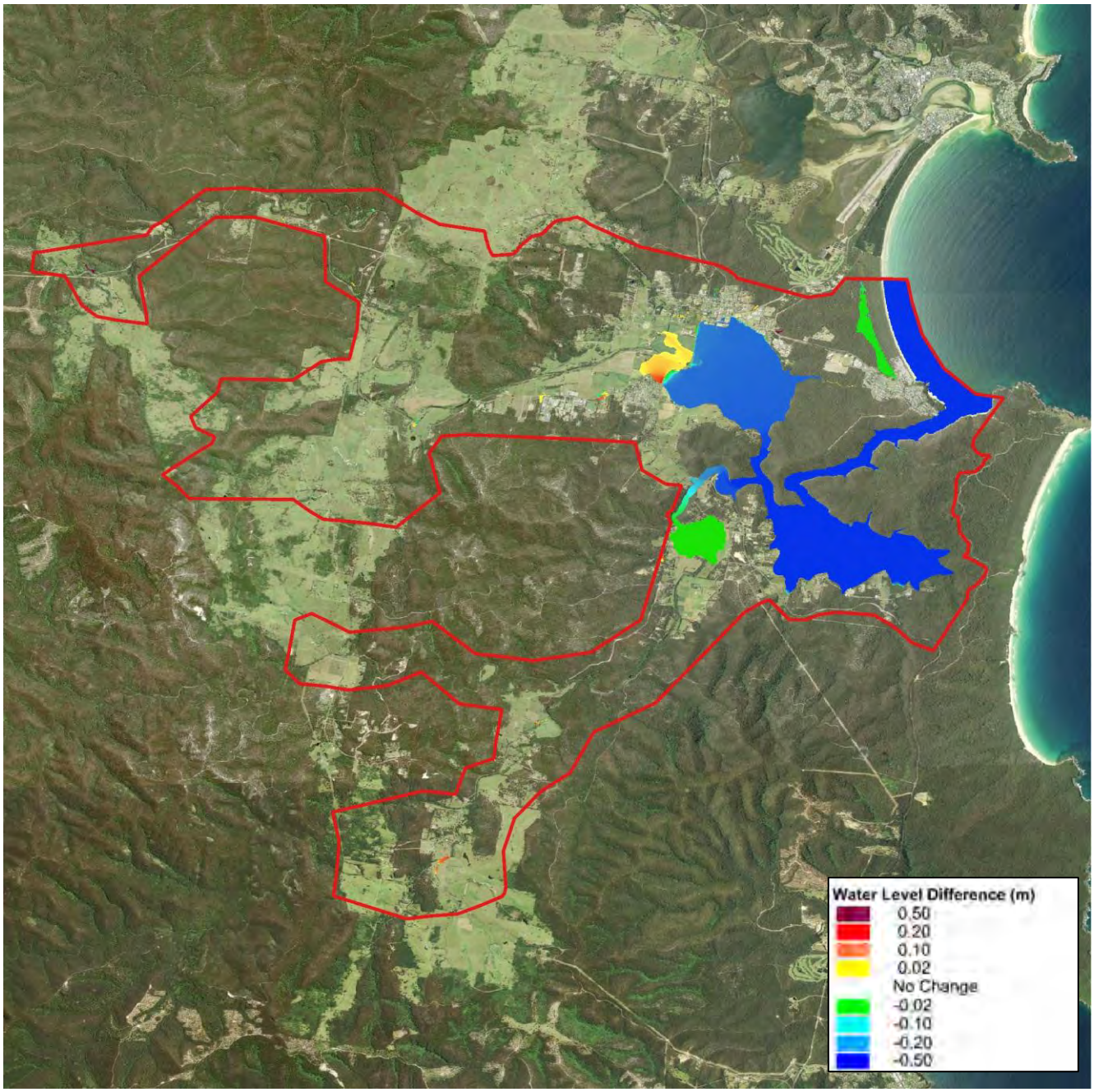


5% AEP


Water Level Difference (m)
0.50
0.20
0.10
0.02
No Change
-0.02
-0.10
-0.20
-0.50

Peak Ocean Level

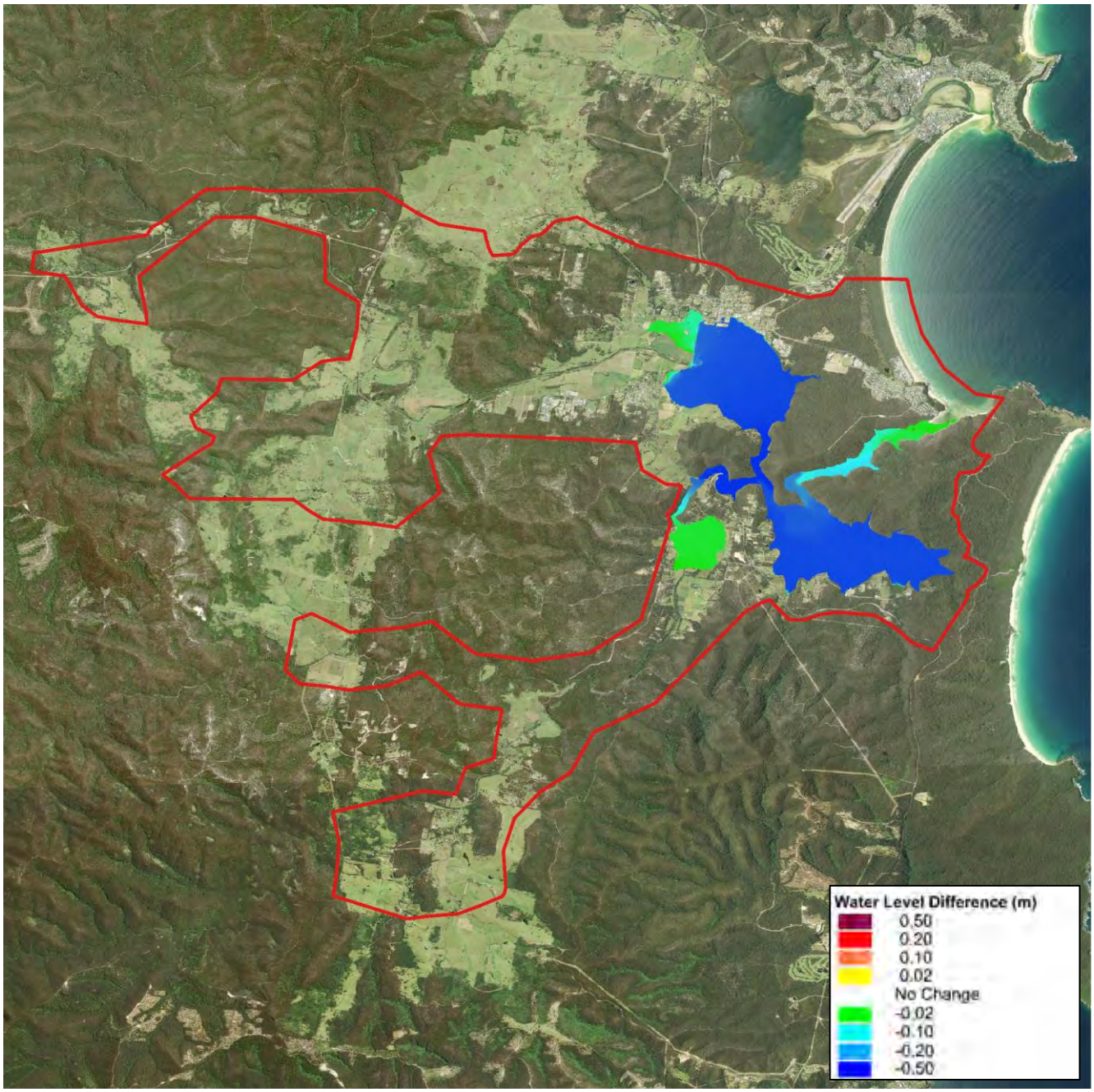
1% AEP flood with ISLW Tide vs 5% AEP Tide



Timing of Pambula River and Yowaka River Flows

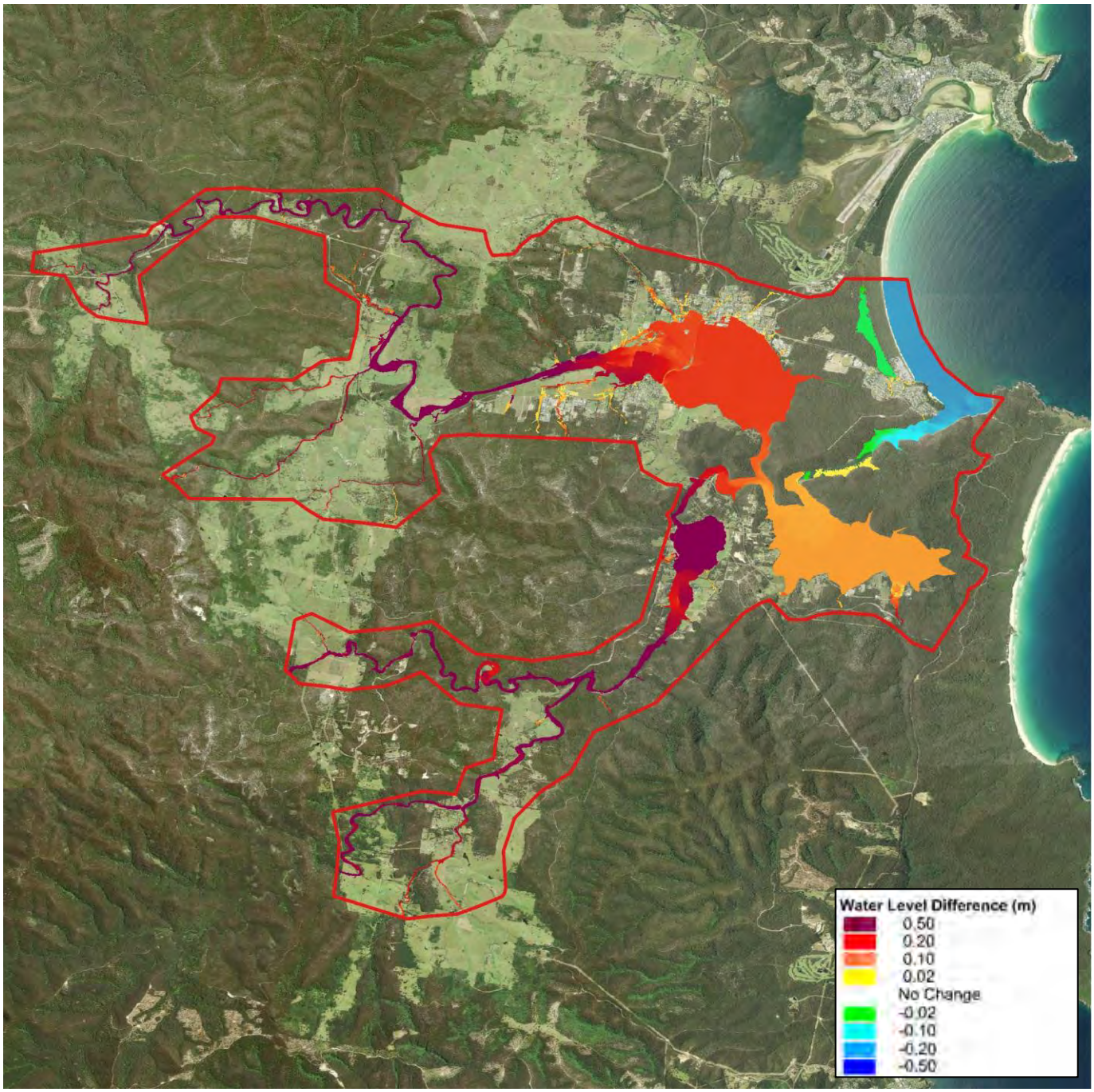
Timing Adjusted to Minimise Flood Levels

1% AEP

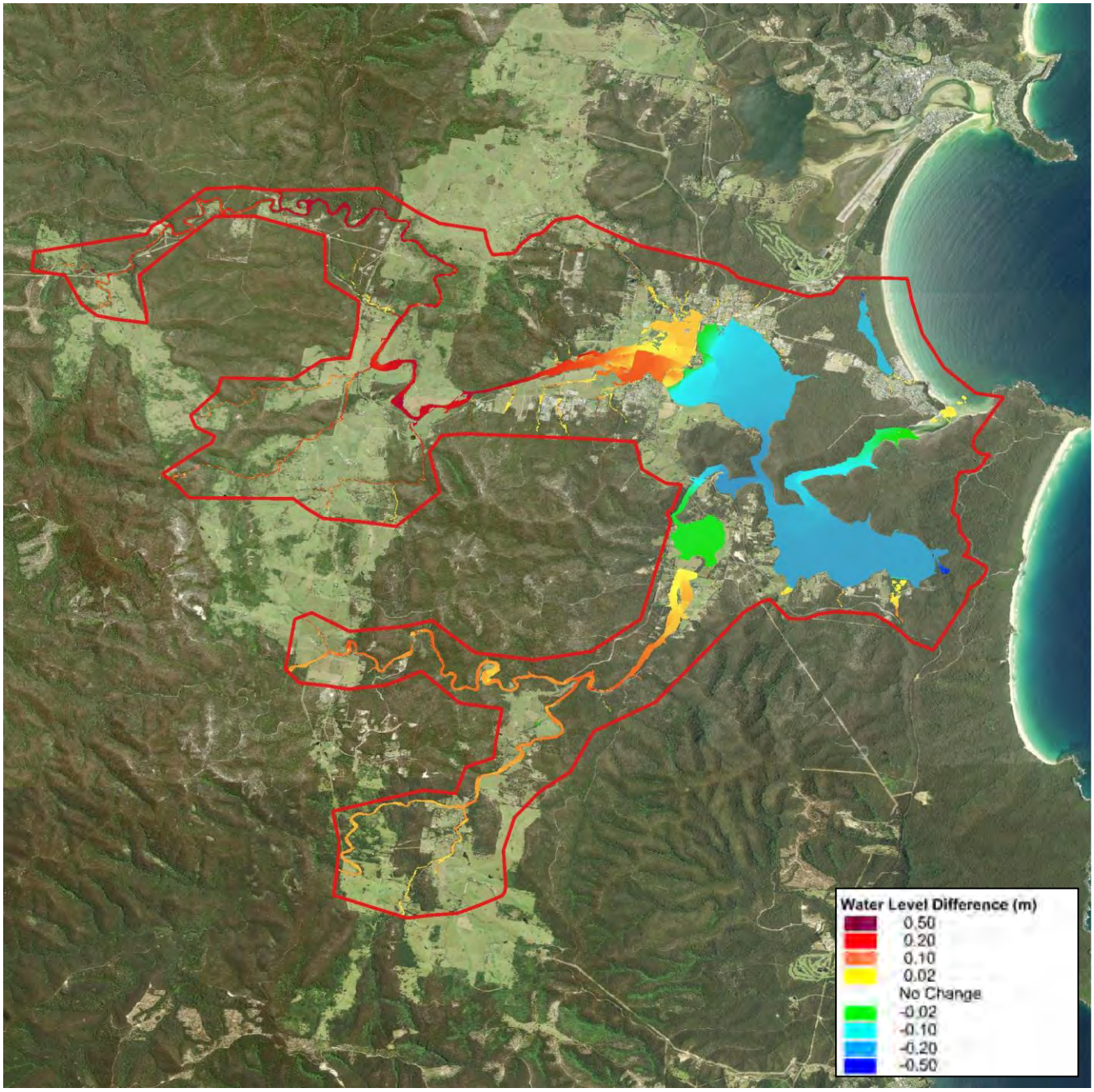


ARR87

1%AEP


Water Level Difference (m)
0.50
0.20
0.10
0.02
No Change
-0.02
-0.10
-0.20
-0.50

5%AEP


Water Level Difference (m)
0.50
0.20
0.10
0.02
No Change
-0.02
-0.10
-0.20
-0.50

APPENDIX L
XP-RAFTS ARR1987 OUTPUTS

10% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
1.01	12 hours	10.3	12 hours	15.2
1.02	12 hours	13.6	9 hours	20.5
1.03	12 hours	18.9	9 hours	29.2
1.04	12 hours	26.8	9 hours	41.3
1.05	12 hours	34.0	9 hours	52.8
1.06	12 hours	34.7	9 hours	53.9
1.07	12 hours	41.3	9 hours	62.8
1.08	12 hours	45.4	9 hours	68.4
1.09	12 hours	46.7	9 hours	70.3
1.10	12 hours	76.3	12 hours	110
1.11	12 hours	91.6	9 hours	133
1.12	12 hours	102	12 hours	147
1.13	12 hours	208	12 hours	295
1.14	12 hours	217	12 hours	306
1.15	12 hours	217	12 hours	306
1.16	12 hours	221	12 hours	312
1.17	12 hours	238	12 hours	336
1.18	12 hours	256	12 hours	360
1.19	12 hours	260	12 hours	365
1.20	12 hours	318	12 hours	445
1.21	12 hours	319	12 hours	447
1.22	12 hours	342	12 hours	480
1.23	12 hours	348	12 hours	488
1.24	12 hours	348	12 hours	488
1.25	12 hours	350	12 hours	490
1.26	12 hours	353	12 hours	495
1.27	12 hours	358	12 hours	500
1.28	12 hours	358	12 hours	500
1.29	12 hours	377	12 hours	525
1.30	12 hours	379	12 hours	527
1.31	12 hours	408	12 hours	564
1.32	12 hours	408	12 hours	564
1.33	12 hours	794	12 hours	1066
1.34	12 hours	794	12 hours	1067
1.35	12 hours	836	12 hours	1120
1.36	12 hours	836	12 hours	1120
1.37	12 hours	836	12 hours	1120
1.38	12 hours	837	12 hours	1121
1.39	12 hours	840	12 hours	1125
1.40	12 hours	845	12 hours	1131
2.01	12 hours	2.63	9 hours	4.60
3.01	12 hours	5.61	9 hours	7.63
4.01	12 hours	5.09	9 hours	7.64
5.01	12 hours	5.21	9 hours	8.18
6.01	12 hours	5.31	12 hours	7.39
7.01	12 hours	3.34	12 hours	4.78
8.01	18 hours	9.14	12 hours	12.1
8.02	12 hours	18.1	12 hours	25.2
8.03	12 hours	18.2	12 hours	25.3
8.04	12 hours	27.2	12 hours	37.8

10% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
8.05	12 hours	28.1	12 hours	39.1
9.01	12 hours	5.97	12 hours	8.48
10.01	12 hours	3.50	9 hours	5.24
10.02	12 hours	8.46	12 hours	12.5
11.01	12 hours	4.93	12 hours	7.26
12.01	12 hours	4.91	9 hours	6.76
12.02	12 hours	7.17	9 hours	11.8
12.03	12 hours	11.4	9 hours	18.6
13.01	12 hours	1.42	9 hours	2.67
14.01	12 hours	3.38	9 hours	5.21
14.02	12 hours	4.77	9 hours	6.42
15.01	12 hours	0.610	6 hours	1.27
16.01	18 hours	4.18	12 hours	5.68
16.02	12 hours	6.36	12 hours	8.67
17.01	12 hours	6.74	12 hours	9.29
17.02	12 hours	15.5	12 hours	21.9
17.03	12 hours	19.9	12 hours	28.4
17.04	12 hours	28.3	12 hours	39.4
17.05	12 hours	33.4	12 hours	46.5
17.06	12 hours	41.7	12 hours	57.5
17.07	12 hours	47.5	12 hours	66.3
17.08	12 hours	65.2	12 hours	92.4
17.09	12 hours	66.7	12 hours	94.6
17.10	12 hours	72.0	12 hours	102
17.11	12 hours	101	12 hours	141
17.12	12 hours	103	12 hours	144
17.13	12 hours	104	12 hours	145
18.01	12 hours	6.20	12 hours	8.91
19.01	12 hours	3.04	12 hours	4.40
20.01	18 hours	7.04	12 hours	9.41
21.01	12 hours	5.79	12 hours	7.88
21.02	12 hours	6.50	12 hours	8.91
22.01	12 hours	5.41	9 hours	7.39
23.01	12 hours	3.75	12 hours	5.52
23.02	12 hours	11.9	12 hours	17.6
23.03	12 hours	16.3	9 hours	24.2
23.04	12 hours	16.5	9 hours	24.5
24.01	12 hours	4.79	12 hours	7.08
25.01	12 hours	1.72	9 hours	3.18
26.01	12 hours	5.04	12 hours	7.06
26.02	12 hours	5.11	12 hours	7.16
27.01	12 hours	6.62	12 hours	9.59
27.02	12 hours	14.4	12 hours	20.3
27.03	12 hours	23.6	12 hours	33.3
28.01	12 hours	1.42	9 hours	2.67
28.02	12 hours	1.92	9 hours	3.59
29.01	12 hours	5.74	12 hours	8.03
30.01	12 hours	2.00	9 hours	2.67
31.01	12 hours	1.22	9 hours	1.86
32.01	12 hours	6.80	12 hours	9.46

10% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
33.01	12 hours	3.33	12 hours	4.78
34.01	12 hours	5.00	12 hours	7.12
34.02	12 hours	12.1	9 hours	18.9
34.03	12 hours	12.3	9 hours	19.2
35.01	12 hours	3.40	12 hours	4.87
35.02	18 hours	6.84	12 hours	9.51
35.03	12 hours	9.33	12 hours	13.0
35.04	12 hours	9.46	12 hours	13.2
35.05	12 hours	14.8	12 hours	21.1
36.01	12 hours	0.430	9 hours	0.800
37.01	12 hours	2.85	12 hours	4.04
38.01	12 hours	2.83	12 hours	3.97
38.02	12 hours	3.47	12 hours	4.90
39.01	12 hours	3.97	12 hours	5.72
39.02	12 hours	8.21	9 hours	13.0
39.03	12 hours	12.5	9 hours	20.0
39.04	12 hours	23.8	9 hours	35.1
39.05	12 hours	30.2	9 hours	43.9
39.06	12 hours	55.6	12 hours	79.3
40.01	12 hours	2.24	9 hours	4.19
41.01	12 hours	2.79	9 hours	5.31
42.01	12 hours	5.65	12 hours	8.17
43.01	12 hours	2.15	9 hours	2.98
44.01	12 hours	6.11	9 hours	9.37
44.02	12 hours	15.3	9 hours	22.6
44.03	12 hours	23.4	12 hours	33.2
45.01	12 hours	4.83	9 hours	6.95
46.01	12 hours	5.62	12 hours	7.61
47.01	12 hours	5.24	9 hours	8.04
47.02	12 hours	7.34	9 hours	11.3
47.03	12 hours	7.94	9 hours	12.5
47.04	12 hours	16.3	9 hours	24.8
47.05	12 hours	20.9	9 hours	32.6
48.01	12 hours	2.02	9 hours	3.23
49.01	12 hours	3.40	9 hours	4.86
49.02	12 hours	3.32	9 hours	5.63
49.03	12 hours	3.38	9 hours	5.70
50.01	12 hours	0.590	6 hours	1.28
51.01	12 hours	1.91	9 hours	3.23
52.01	12 hours	0.890	9 hours	1.65
52.02	12 hours	2.10	9 hours	3.52
53.01	12 hours	2.98	12 hours	4.39
54.01	12 hours	1.36	9 hours	1.83
54.02	12 hours	1.75	9 hours	2.86
54.03	12 hours	2.02	9 hours	3.29
55.01	12 hours	1.68	9 hours	2.49
56.01	12 hours	2.00	9 hours	3.54
56.02	12 hours	3.32	9 hours	5.49
56.03	12 hours	3.91	9 hours	6.35
57.01	12 hours	1.71	9 hours	3.01

10% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
57.02	12 hours	4.01	9 hours	5.29
58.01	12 hours	3.11	9 hours	4.38
58.02	12 hours	4.56	9 hours	6.42
58.03	12 hours	6.63	9 hours	9.42
58.04	12 hours	11.1	9 hours	16.5
58.05	12 hours	11.9	9 hours	17.4
58.06	12 hours	17.3	9 hours	25.0
58.07	12 hours	19.9	9 hours	28.1
59.01	12 hours	1.68	9 hours	2.22
60.01	12 hours	1.32	9 hours	2.41
60.02	12 hours	1.72	9 hours	3.05
60.03	12 hours	3.67	9 hours	5.73
61.01	12 hours	1.26	9 hours	1.64
62.01	12 hours	0.260	9 hours	0.480
63.01	12 hours	0.020	2 hours	0.080
64.01	12 hours	0.740	9 hours	1.30
64.02	12 hours	4.02	9 hours	6.55
65.01	12 hours	0.430	9 hours	0.770
66.01	12 hours	0.560	9 hours	1.05
66.02	12 hours	1.88	9 hours	2.93
67.01	12 hours	0.110	1.50 hour	0.450
68.01	12 hours	0.170	2 hours	0.610
69.01	12 hours	0.170	1.50 hour	0.720
69.02	12 hours	0.300	1.50 hour	1.01
70.01	12 hours	0.130	1.50 hour	0.440
71.01	12 hours	0.150	1.50 hour	0.580
72.01	12 hours	0.170	1.50 hour	0.620
73.01	12 hours	0.120	2 hours	0.440
74.01	12 hours	0.990	9 hours	1.63
75.01	48 hours	0.770	2 hours	0.760
75.02	48 hours	0.920	2 hours	0.810
76.01	12 hours	0.710	9 hours	1.20
76.02	12 hours	0.760	9 hours	1.26
77.01	12 hours	1.72	9 hours	2.71
77.02	12 hours	3.80	9 hours	6.13
77.03	12 hours	7.17	9 hours	10.4
77.04	12 hours	7.99	9 hours	11.9
77.05	12 hours	8.51	9 hours	12.8
77.06	12 hours	8.63	9 hours	13.0
77.07	12 hours	16.7	9 hours	26.7
77.08	12 hours	17.1	9 hours	27.1
77.09	12 hours	17.2	9 hours	27.3
77.10	12 hours	17.5	9 hours	27.8
77.11	12 hours	20.1	9 hours	31.7
77.12	12 hours	22.5	9 hours	34.7
77.13	12 hours	27.3	9 hours	40.1
78.01	12 hours	1.60	9 hours	2.38
78.02	12 hours	3.75	9 hours	5.81
79.01	12 hours	1.09	9 hours	1.90
80.01	12 hours	0.500	9 hours	0.900

10% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
81.01	12 hours	1.07	9 hours	1.77
81.02	12 hours	1.18	9 hours	1.99
81.03	12 hours	2.41	9 hours	4.26
81.04	12 hours	4.49	9 hours	8.34
82.01	12 hours	0.240	4.50 hours	0.600
82.02	12 hours	1.01	9 hours	1.83
82.03	12 hours	1.15	9 hours	2.12
83.01	12 hours	0.750	9 hours	1.37
83.02	12 hours	1.50	9 hours	2.90
83.03	12 hours	1.66	2 hours	3.24
84.01	12 hours	0.150	1.50 hour	0.450
84.02	12 hours	0.530	2 hours	1.39
85.01	12 hours	0.280	4.50 hours	0.680
86.01	12 hours	0.040	1.50 hour	0.220
87.01	12 hours	0.220	1.50 hour	0.710
87.02	12 hours	0.400	4.50 hours	1.13
88.01	12 hours	0.080	4.50 hours	0.260
89.01	12 hours	0.130	1.50 hour	0.280
90.01	12 hours	0.080	1.50 hour	0.250
91.01	12 hours	0.250	2 hours	0.850
92.01	12 hours	0.380	9 hours	0.600
92.02	12 hours	1.58	9 hours	2.18
92.03	12 hours	1.70	9 hours	2.33
92.04	12 hours	2.50	2 hours	4.14
93.01	12 hours	0.130	6 hours	0.260
94.01	12 hours	0.150	1.50 hour	0.500
95.01	12 hours	0.190	1.50 hour	0.650
96.01	12 hours	0.080	1.50 hour	0.320
97.01	12 hours	0.090	3 min	0.360
98.01	12 hours	0.250	6 hours	0.490
99.01	12 hours	1.37	12 hours	1.80
99.02	12 hours	1.85	9 hours	2.44
100.01	12 hours	0.040	1.50 hour	0.140
101.01	12 hours	0.030	1.50 hour	0.150
102.01	12 hours	0.060	1.50 hour	0.210
103.01	12 hours	0.040	3 min	0.200
104.01	12 hours	0.110	3 min	0.390
104.02	12 hours	0.300	2 hours	0.920
105.01	12 hours	0.030	3 min	0.160
106.01	18 hours	2.65	12 hours	2.72
106.02	18 hours	3.85	12 hours	4.60
107.01	12 hours	1.57	9 hours	2.00
108.01	12 hours	0.890	12 hours	1.16
108.02	12 hours	0.910	12 hours	1.19
109.01	12 hours	1.86	9 hours	2.83
110.01	12 hours	1.09	9 hours	1.83
111.01	12 hours	0.530	6 hours	1.19
112.01	12 hours	0.400	4.50 hours	0.940
113.01	12 hours	0.190	4.50 hours	0.550
114.01	12 hours	6.13	12 hours	8.64

10% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
114.02	12 hours	9.27	12 hours	13.0
114.03	12 hours	18.1	12 hours	24.4
114.04	18 hours	27.8	12 hours	37.6
114.05	18 hours	37.4	12 hours	47.3
114.06	12 hours	91.2	12 hours	120
114.07	12 hours	98.8	12 hours	130
114.08	12 hours	107	12 hours	141
114.09	12 hours	110	12 hours	145
114.10	12 hours	116	12 hours	153
114.11	12 hours	124	12 hours	165
114.12	12 hours	126	12 hours	168
114.13	12 hours	142	12 hours	188
114.14	12 hours	148	12 hours	195
114.15	12 hours	149	12 hours	196
114.16	12 hours	320	12 hours	419
114.17	12 hours	341	12 hours	446
114.18	12 hours	348	12 hours	453
114.19	12 hours	350	12 hours	456
114.20	12 hours	354	12 hours	461
114.21	12 hours	382	12 hours	494
114.22	12 hours	386	12 hours	499
114.23	12 hours	387	12 hours	501
114.24	12 hours	390	12 hours	505
114.25	12 hours	396	12 hours	513
115.01	12 hours	2.88	9 hours	4.07
116.01	12 hours	5.52	12 hours	7.23
117.01	12 hours	3.72	9 hours	5.73
118.01	18 hours	9.39	12 hours	9.60
119.01	12 hours	10.4	12 hours	13.1
119.02	12 hours	16.5	12 hours	21.1
119.03	12 hours	44.2	12 hours	59.4
119.04	12 hours	51.3	12 hours	68.8
120.01	12 hours	4.14	12 hours	5.72
121.01	12 hours	5.82	9 hours	8.53
121.02	12 hours	15.0	9 hours	21.5
121.03	12 hours	19.6	9 hours	28.3
121.04	12 hours	25.9	9 hours	36.5
122.01	12 hours	6.99	9 hours	9.79
123.01	12 hours	4.21	9 hours	5.36
124.01	12 hours	5.38	12 hours	7.06
125.01	12 hours	4.39	9 hours	6.33
126.01	12 hours	7.24	12 hours	10.0
127.01	12 hours	5.37	9 hours	7.40
128.01	12 hours	4.36	9 hours	6.34
129.01	12 hours	4.04	9 hours	5.51
129.02	12 hours	6.64	9 hours	11.1
129.03	12 hours	8.53	9 hours	14.4
130.01	12 hours	2.14	9 hours	3.77
131.01	12 hours	1.69	9 hours	2.95
131.02	12 hours	6.76	12 hours	9.10

10% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
131.03	12 hours	10.4	12 hours	14.2
132.01	12 hours	3.26	9 hours	4.68
133.01	12 hours	8.50	9 hours	12.1
133.02	12 hours	18.2	9 hours	26.6
133.03	12 hours	29.5	9 hours	40.2
133.04	12 hours	33.3	9 hours	46.4
133.05	12 hours	42.0	9 hours	57.9
133.06	12 hours	42.2	9 hours	58.2
133.07	12 hours	73.4	12 hours	97.0
133.08	12 hours	76.0	12 hours	97.8
133.09	12 hours	91.1	12 hours	118
133.10	12 hours	100	12 hours	131
133.11	12 hours	114	12 hours	147
133.12	12 hours	157	12 hours	206
133.13	12 hours	165	12 hours	216
133.14	12 hours	168	12 hours	220
134.01	12 hours	6.35	9 hours	9.42
135.01	12 hours	8.18	12 hours	10.5
136.01	12 hours	3.45	9 hours	4.75
137.01	12 hours	4.25	9 hours	5.46
138.01	18 hours	12.9	12 hours	13.8
138.02	18 hours	15.9	12 hours	17.7
138.03	18 hours	27.5	12 hours	33.2
139.01	12 hours	5.69	12 hours	7.53
139.02	12 hours	10.7	12 hours	14.0
140.01	12 hours	0.620	6 hours	1.37
141.01	12 hours	8.33	9 hours	11.7
141.02	12 hours	9.84	9 hours	14.1
142.01	12 hours	1.10	9 hours	1.92
143.01	12 hours	6.47	9 hours	9.84
144.01	12 hours	6.16	9 hours	8.78
145.01	12 hours	4.51	9 hours	6.61
145.02	12 hours	12.6	12 hours	16.6
145.03	12 hours	19.5	12 hours	26.1
145.04	12 hours	37.4	12 hours	49.5
145.05	12 hours	37.5	12 hours	49.7
145.06	12 hours	43.0	12 hours	57.9
146.01	12 hours	5.97	12 hours	7.77
147.01	12 hours	4.05	9 hours	5.32
148.01	12 hours	8.66	12 hours	11.1
148.02	12 hours	13.5	12 hours	17.3
148.03	12 hours	17.8	12 hours	23.2
149.01	12 hours	3.92	9 hours	5.52
150.01	12 hours	3.66	12 hours	5.01
151.01	12 hours	3.65	9 hours	5.02
152.01	12 hours	1.32	9 hours	2.45
153.01	12 hours	4.22	9 hours	6.33
154.01	12 hours	1.70	9 hours	2.95
154.02	12 hours	2.24	9 hours	4.05
155.01	18 hours	6.26	12 hours	7.45

10% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
155.02	18 hours	6.35	12 hours	7.58
155.03	12 hours	10.5	12 hours	13.6
155.04	12 hours	11.0	12 hours	14.2
155.05	12 hours	17.7	12 hours	23.2
155.06	12 hours	20.8	12 hours	27.7
156.01	12 hours	3.67	12 hours	4.96
156.02	12 hours	3.83	12 hours	5.16
157.01	12 hours	2.72	12 hours	3.68
158.01	12 hours	1.42	9 hours	2.10
159.01	12 hours	1.64	9 hours	2.19
160.01	12 hours	2.82	12 hours	3.92
160.02	12 hours	3.04	9 hours	4.24
161.01	12 hours	5.53	12 hours	7.02
162.01	12 hours	0.510	6 hours	1.13
162.02	12 hours	3.36	12 hours	4.49
162.03	12 hours	3.42	12 hours	4.58
163.01	12 hours	0.740	9 hours	1.43
163.02	12 hours	2.11	9 hours	3.80
163.03	12 hours	6.45	12 hours	9.03
163.04	12 hours	9.84	12 hours	13.3
163.05	18 hours	20.4	12 hours	26.5
163.06	18 hours	21.2	12 hours	27.5
164.01	18 hours	7.31	12 hours	8.46
165.01	18 hours	3.50	12 hours	4.29
165.02	12 hours	4.06	12 hours	5.10
166.01	12 hours	1.30	9 hours	1.82
166.02	12 hours	2.33	9 hours	3.50
166.03	12 hours	4.05	12 hours	5.46
167.01	12 hours	0.880	9 hours	1.56
167.02	12 hours	1.66	9 hours	2.92
168.01	12 hours	2.75	9 hours	3.53
168.02	12 hours	2.36	9 hours	3.55
169.01	12 hours	4.29	12 hours	5.82
169.02	12 hours	4.88	9 hours	6.69
170.01	12 hours	0.750	9 hours	1.39
171.01	12 hours	0.830	9 hours	1.36
172.01	12 hours	0.550	9 hours	1.00
173.01	12 hours	1.02	9 hours	1.82
173.02	12 hours	7.52	9 hours	10.7
173.03	12 hours	14.7	9 hours	20.6
173.04	12 hours	16.1	9 hours	22.0
173.05	12 hours	20.6	9 hours	27.0
173.06	12 hours	26.8	12 hours	33.6
173.07	12 hours	48.5	9 hours	65.0
174.01	12 hours	0.810	9 hours	1.55
175.01	12 hours	0.640	9 hours	1.13
176.01	12 hours	0.590	6 hours	1.13
176.02	12 hours	3.08	9 hours	4.81
177.01	18 hours	2.24	30 hours	2.19
178.01	12 hours	1.73	12 hours	2.29

10% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
179.01	12 hours	0.360	9 hours	0.490
180.01	18 hours	2.34	12 hours	2.47
180.02	18 hours	2.59	12 hours	2.75
181.01	12 hours	1.78	12 hours	2.38
182.01	12 hours	0.260	6 hours	0.580
183.01	12 hours	2.56	9 hours	4.52
183.02	12 hours	4.90	9 hours	7.78
183.03	12 hours	8.80	9 hours	13.3
183.04	12 hours	13.5	9 hours	20.0
183.05	12 hours	14.1	9 hours	20.9
183.06	12 hours	21.4	9 hours	31.9
184.01	12 hours	0.490	6 hours	0.950
184.02	12 hours	2.93	9 hours	4.23
185.01	12 hours	0.610	6 hours	1.34
185.02	12 hours	2.60	9 hours	3.92
186.01	12 hours	1.13	9 hours	1.91
187.01	12 hours	1.64	9 hours	2.13
187.02	12 hours	3.08	9 hours	3.93
188.01	12 hours	0.460	9 hours	0.880
189.01	12 hours	0.480	6 hours	1.00
190.01	12 hours	0.320	4.50 hours	0.780
191.01	12 hours	0.860	9 hours	1.45
192.01	12 hours	1.04	6 hours	2.35
193.01	12 hours	0.880	4.50 hours	2.20
194.01	12 hours	0.160	4.50 hours	0.490
195.01	12 hours	0.300	4.50 hours	0.850
196.01	12 hours	0.350	4.50 hours	0.910
197.01	12 hours	0.290	1.50 hour	0.920
198.01	12 hours	0.410	4.50 hours	1.09
199.01	12 hours	0.900	9 hours	1.61
199.02	12 hours	1.21	9 hours	2.29
200.01	12 hours	0.160	4.50 hours	0.510
201.01	12 hours	0.380	4.50 hours	1.05
202.01	18 hours	3.03	12 hours	3.70
203.01	12 hours	0.550	4.50 hours	1.34
204.01	12 hours	0.370	4.50 hours	1.12
205.01	12 hours	0.490	4.50 hours	1.36
206.01	12 hours	0.130	1.50 hour	0.540
207.01	12 hours	0.470	3 min	1.74
208.01	12 hours	0.660	9 hours	1.26
208.02	12 hours	0.940	12 hours	1.84
208.03	12 hours	1.74	12 hours	3.32
208.04	12 hours	3.21	9 hours	4.99
208.05	12 hours	3.82	9 hours	5.70
208.06	18 hours	4.62	9 hours	6.36
209.01	12 hours	0.120	3 min	0.530
210.01	12 hours	0.240	3 min	0.710
211.01	12 hours	0.240	4.50 hours	0.670
211.02	12 hours	0.280	4.50 hours	0.770
211.03	12 hours	0.980	1.50 hour	2.20

10% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
212.01	12 hours	0.110	1.50 hour	0.630
_junc_10	12 hours	20.6	12 hours	27.4
_junc_108	12 hours	0.430	1.50 hour	1.10
_junc_11	12 hours	341	12 hours	445
_junc_111	12 hours	2.33	9 hours	4.10
_junc_114	12 hours	1.37	12 hours	1.80
_junc_12	12 hours	10.5	9 hours	15.5
_junc_13	12 hours	104	12 hours	137
_junc_138	12 hours	7.23	9 hours	11.2
_junc_14	12 hours	88.3	12 hours	116
_junc_142	12 hours	5.56	9 hours	9.25
_junc_143	12 hours	167	12 hours	219
_junc_15	12 hours	317	12 hours	416
_junc_16	12 hours	347	12 hours	453
_junc_165	12 hours	23.4	9 hours	35.7
_junc_168	12 hours	21.8	9 hours	34.0
_junc_17	12 hours	98.5	12 hours	130
_junc_174	12 hours	15.8	9 hours	23.4
_junc_18	18 hours	37.3	12 hours	47.1
_junc_181	12 hours	0.070	1.50 hour	0.340
_junc_185	12 hours	0.080	1.50 hour	0.320
_junc_186	12 hours	0.240	1.50 hour	0.860
_junc_187	12 hours	1.87	9 hours	2.71
_junc_19	12 hours	137	12 hours	182
_junc_193	12 hours	7.93	9 hours	12.0
_junc_194	12 hours	11.4	9 hours	17.1
_junc_199	12 hours	13.6	9 hours	20.1
_junc_2	12 hours	161	12 hours	212
_junc_20	12 hours	114	12 hours	151
_junc_204	12 hours	5.95	9 hours	8.61
_junc_21	12 hours	124	12 hours	165
_junc_22	12 hours	354	12 hours	461
_junc_228	12 hours	0.400	2 hours	1.31
_junc_23	12 hours	358	12 hours	466
_junc_231	12 hours	145	12 hours	191
_junc_232	12 hours	18.1	9 hours	28.0
_junc_233	12 hours	25.6	9 hours	38.1
_junc_234	12 hours	345	12 hours	484
_junc_24	12 hours	21.7	12 hours	29.9
_junc_25	18 hours	16.4	12 hours	21.8
_junc_26	12 hours	14.8	12 hours	20.3
_junc_263	12 hours	8.50	12 hours	12.6
_junc_265	12 hours	8.32	9 hours	12.4
_junc_27	12 hours	8.97	12 hours	12.6
_junc_28	12 hours	387	12 hours	501
_junc_29	12 hours	386	12 hours	499
_junc_3	12 hours	13.8	12 hours	17.9
_junc_30	12 hours	389	12 hours	504
_junc_31	12 hours	11.2	9 hours	18.2
_junc_32	12 hours	395	12 hours	511

10% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
_junc_324	12 hours	349	12 hours	489
_junc_328	12 hours	405	12 hours	561
_junc_329	12 hours	23.2	12 hours	29.6
_junc_33	12 hours	11.3	9 hours	18.1
_junc_330	12 hours	48.1	9 hours	64.8
_junc_331	12 hours	836	12 hours	1120
_junc_34	12 hours	17.5	9 hours	27.7
_junc_35	12 hours	5.97	9 hours	9.17
_junc_36	12 hours	339	12 hours	476
_junc_37	12 hours	12.9	12 hours	18.2
_junc_38	12 hours	10.2	9 hours	16.2
_junc_39	12 hours	376	12 hours	524
_junc_4	12 hours	14.3	12 hours	18.8
_junc_40	12 hours	18.5	12 hours	26.3
_junc_41	12 hours	11.1	9 hours	16.5
_junc_42	12 hours	21.0	12 hours	29.6
_junc_43	12 hours	53.6	9 hours	76.5
_junc_44	12 hours	353	12 hours	494
_junc_45	12 hours	316	12 hours	442
_junc_46	12 hours	27.1	12 hours	37.8
_junc_47	12 hours	357	12 hours	499
_junc_48	12 hours	260	12 hours	364
_junc_49	12 hours	12.4	9 hours	18.8
_junc_5	12 hours	12.9	9 hours	18.3
_junc_50	12 hours	40.2	12 hours	55.4
_junc_51	12 hours	254	12 hours	356
_junc_52	12 hours	45.9	12 hours	63.9
_junc_53	12 hours	12.2	12 hours	17.3
_junc_54	12 hours	63.7	12 hours	90.3
_junc_55	12 hours	71.9	12 hours	102
_junc_56	12 hours	233	12 hours	329
_junc_57	12 hours	96.4	12 hours	135
_junc_58	12 hours	220	12 hours	311
_junc_59	12 hours	206	12 hours	292
_junc_6	12 hours	42.1	12 hours	56.5
_junc_60	12 hours	215	12 hours	304
_junc_61	12 hours	20.2	12 hours	28.3
_junc_62	12 hours	98.0	12 hours	141
_junc_63	12 hours	87.4	9 hours	127
_junc_64	12 hours	39.9	9 hours	60.6
_junc_65	12 hours	13.3	9 hours	18.2
_junc_66	12 hours	74.5	12 hours	108
_junc_67	12 hours	44.7	9 hours	67.1
_junc_68	12 hours	31.9	9 hours	49.5
_junc_69	12 hours	23.7	9 hours	36.8
_junc_7	12 hours	48.6	12 hours	65.4
_junc_70	12 hours	18.3	9 hours	28.1
_junc_71	12 hours	15.0	12 hours	20.6
_junc_72	12 hours	26.9	12 hours	37.5
_junc_73	12 hours	12.9	9 hours	19.6

10% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
_junc_74	12 hours	8.42	12 hours	12.5
_junc_75	18 hours	26.3	12 hours	31.5
_junc_76	12 hours	10.5	12 hours	13.9
_junc_77	12 hours	26.1	9 hours	35.9
_junc_78	12 hours	32.3	9 hours	44.8
_junc_79	12 hours	36.8	9 hours	51.8
_junc_8	12 hours	18.7	9 hours	26.9
_junc_80	12 hours	14.8	9 hours	21.5
_junc_81	12 hours	69.4	12 hours	90.0
_junc_82	12 hours	15.9	9 hours	21.5
_junc_83	12 hours	12.7	12 hours	16.4
_junc_84	12 hours	85.5	12 hours	111
_junc_85	12 hours	17.1	12 hours	22.3
_junc_86	12 hours	106	12 hours	139
_junc_87	12 hours	37.2	12 hours	49.2
_junc_88	12 hours	40.5	12 hours	54.3
_junc_89	12 hours	97.2	12 hours	127
_junc_9	12 hours	24.8	9 hours	34.9
_junc_90	12 hours	156	12 hours	204
_junc_91	12 hours	9.93	12 hours	12.7

5% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
1.01	12 hours	12.4	9 hours	19.7
1.02	12 hours	16.2	9 hours	26.5
1.03	12 hours	22.6	9 hours	37.8
1.04	12 hours	32.1	9 hours	53.4
1.05	12 hours	41.1	9 hours	68.1
1.06	12 hours	41.9	9 hours	69.6
1.07	12 hours	49.8	9 hours	81.3
1.08	12 hours	54.7	9 hours	88.7
1.09	12 hours	56.3	9 hours	91.1
1.10	12 hours	91.7	9 hours	142
1.11	12 hours	110	9 hours	173
1.12	12 hours	123	9 hours	189
1.13	12 hours	249	12 hours	378
1.14	12 hours	259	12 hours	393
1.15	12 hours	260	12 hours	393
1.16	12 hours	264	12 hours	401
1.17	12 hours	285	12 hours	431
1.18	12 hours	305	12 hours	462
1.19	12 hours	310	12 hours	469
1.20	12 hours	378	12 hours	571
1.21	12 hours	380	12 hours	574
1.22	12 hours	408	9 hours	616
1.23	12 hours	414	9 hours	627
1.24	12 hours	415	9 hours	627
1.25	12 hours	416	9 hours	630
1.26	12 hours	421	9 hours	637
1.27	12 hours	425	9 hours	643
1.28	12 hours	426	9 hours	644
1.29	12 hours	449	9 hours	678
1.30	12 hours	451	9 hours	680
1.31	12 hours	486	9 hours	732
1.32	12 hours	486	9 hours	732
1.33	12 hours	953	9 hours	1375
1.34	12 hours	954	9 hours	1377
1.35	12 hours	1006	9 hours	1450
1.36	12 hours	1007	9 hours	1451
1.37	12 hours	1008	9 hours	1451
1.38	12 hours	1009	9 hours	1452
1.39	12 hours	1014	9 hours	1458
1.40	12 hours	1022	9 hours	1467
2.01	12 hours	3.15	9 hours	5.84
3.01	12 hours	5.71	9 hours	9.82
4.01	12 hours	6.08	9 hours	9.86
5.01	12 hours	6.28	9 hours	10.5
6.01	12 hours	6.34	12 hours	9.51
7.01	12 hours	4.06	12 hours	6.16
8.01	18 hours	11.3	12 hours	16.1
8.02	12 hours	22.3	12 hours	32.9
8.03	12 hours	22.3	12 hours	32.9
8.04	12 hours	32.6	12 hours	48.8

5% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
8.05	12 hours	33.6	12 hours	50.4
9.01	12 hours	7.16	12 hours	10.9
10.01	12 hours	4.24	9 hours	6.80
10.02	12 hours	10.3	9 hours	16.2
11.01	12 hours	5.96	9 hours	9.39
12.01	12 hours	4.99	9 hours	8.68
12.02	12 hours	8.66	9 hours	15.2
12.03	12 hours	13.8	9 hours	24.0
13.01	12 hours	1.66	9 hours	3.36
14.01	12 hours	4.10	9 hours	6.71
14.02	12 hours	4.96	9 hours	8.27
15.01	12 hours	0.690	6 hours	1.62
16.01	12 hours	5.17	12 hours	7.51
16.02	12 hours	7.81	12 hours	11.4
17.01	12 hours	8.04	12 hours	12.0
17.02	12 hours	18.6	12 hours	28.1
17.03	12 hours	23.9	12 hours	36.3
17.04	12 hours	33.8	12 hours	50.7
17.05	12 hours	39.8	12 hours	59.9
17.06	12 hours	49.7	12 hours	74.3
17.07	12 hours	56.8	12 hours	85.2
17.08	12 hours	78.3	9 hours	119
17.09	12 hours	80.1	9 hours	122
17.10	12 hours	86.3	12 hours	130
17.11	12 hours	121	12 hours	182
17.12	12 hours	123	12 hours	185
17.13	12 hours	124	12 hours	187
18.01	12 hours	7.49	12 hours	11.4
19.01	12 hours	3.65	12 hours	5.62
20.01	12 hours	8.71	12 hours	12.5
21.01	12 hours	7.20	12 hours	10.4
21.02	12 hours	8.07	12 hours	11.7
22.01	12 hours	5.50	9 hours	9.50
23.01	12 hours	4.52	9 hours	7.13
23.02	12 hours	14.4	9 hours	22.5
23.03	12 hours	19.6	9 hours	31.4
23.04	12 hours	19.9	9 hours	31.8
24.01	12 hours	5.81	9 hours	9.18
25.01	12 hours	2.03	9 hours	4.02
26.01	12 hours	6.17	12 hours	9.18
26.02	12 hours	6.26	12 hours	9.31
27.01	12 hours	8.01	12 hours	12.3
27.02	12 hours	17.3	12 hours	26.0
27.03	12 hours	29.1	12 hours	43.2
28.01	12 hours	1.64	9 hours	3.35
28.02	12 hours	2.23	9 hours	4.52
29.01	12 hours	6.86	12 hours	10.3
30.01	12 hours	2.05	9 hours	3.43
31.01	12 hours	1.48	9 hours	2.40
32.01	12 hours	8.35	12 hours	12.3

5% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
33.01	12 hours	4.03	12 hours	6.12
34.01	12 hours	5.96	12 hours	9.11
34.02	12 hours	14.7	9 hours	24.4
34.03	12 hours	14.9	9 hours	24.7
35.01	12 hours	4.11	12 hours	6.23
35.02	12 hours	8.46	12 hours	12.5
35.03	12 hours	11.5	12 hours	17.0
35.04	12 hours	11.6	12 hours	17.2
35.05	12 hours	18.3	12 hours	27.3
36.01	12 hours	0.510	9 hours	1.01
37.01	12 hours	3.42	12 hours	5.16
38.01	12 hours	3.47	12 hours	5.16
38.02	12 hours	4.26	12 hours	6.31
39.01	12 hours	4.80	12 hours	7.31
39.02	12 hours	9.97	9 hours	16.8
39.03	12 hours	14.5	9 hours	25.6
39.04	12 hours	28.9	9 hours	45.6
39.05	12 hours	36.5	9 hours	57.1
39.06	12 hours	67.1	9 hours	103
40.01	12 hours	2.60	9 hours	5.26
41.01	12 hours	3.27	9 hours	6.66
42.01	12 hours	6.84	9 hours	10.5
43.01	12 hours	2.19	9 hours	3.81
44.01	12 hours	7.44	9 hours	12.1
44.02	12 hours	18.6	9 hours	29.3
44.03	12 hours	28.2	9 hours	42.6
45.01	12 hours	4.90	9 hours	8.82
46.01	12 hours	6.88	12 hours	9.99
47.01	12 hours	6.30	9 hours	10.3
47.02	12 hours	8.81	9 hours	14.6
47.03	12 hours	9.54	9 hours	16.1
47.04	12 hours	19.6	9 hours	32.0
47.05	12 hours	25.3	9 hours	42.0
48.01	12 hours	2.40	9 hours	4.14
49.01	12 hours	3.46	9 hours	6.19
49.02	12 hours	3.94	9 hours	7.21
49.03	12 hours	3.99	9 hours	7.31
50.01	12 hours	0.660	6 hours	1.61
51.01	12 hours	2.30	9 hours	4.11
52.01	12 hours	1.04	9 hours	2.08
52.02	12 hours	2.50	9 hours	4.49
53.01	12 hours	3.64	9 hours	5.65
54.01	12 hours	1.41	9 hours	2.35
54.02	12 hours	2.06	9 hours	3.66
54.03	12 hours	2.32	9 hours	4.21
55.01	12 hours	1.73	9 hours	3.15
56.01	12 hours	2.39	9 hours	4.48
56.02	12 hours	3.98	9 hours	6.97
56.03	12 hours	4.68	9 hours	8.07
57.01	12 hours	2.07	9 hours	3.83

5% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
57.02	12 hours	4.84	9 hours	6.82
58.01	12 hours	3.80	9 hours	5.65
58.02	12 hours	5.56	9 hours	8.27
58.03	12 hours	8.05	9 hours	12.1
58.04	12 hours	13.5	9 hours	21.1
58.05	12 hours	14.5	9 hours	22.3
58.06	12 hours	21.0	9 hours	32.0
58.07	12 hours	24.0	9 hours	36.1
59.01	12 hours	1.71	9 hours	2.82
60.01	12 hours	1.59	9 hours	3.05
60.02	12 hours	2.04	9 hours	3.84
60.03	12 hours	4.41	9 hours	7.30
61.01	12 hours	1.30	9 hours	2.08
62.01	12 hours	0.300	9 hours	0.590
63.01	12 hours	0.030	2 hours	0.110
64.01	12 hours	0.880	9 hours	1.63
64.02	12 hours	4.89	9 hours	8.32
65.01	12 hours	0.510	9 hours	0.960
66.01	12 hours	0.630	6 hours	1.32
66.02	12 hours	2.27	9 hours	3.75
67.01	12 hours	0.120	1.50 hour	0.570
68.01	12 hours	0.200	2 hours	0.780
69.01	12 hours	0.200	1.50 hour	0.910
69.02	12 hours	0.340	1.50 hour	1.27
70.01	12 hours	0.150	1.50 hour	0.560
71.01	12 hours	0.160	1.50 hour	0.730
72.01	12 hours	0.190	1.50 hour	0.790
73.01	12 hours	0.140	2 hours	0.570
74.01	12 hours	1.20	9 hours	2.05
75.01	48 hours	1.06	2 hours	0.910
75.02	36 hours	1.25	36 hours	1.07
76.01	12 hours	0.850	9 hours	1.50
76.02	12 hours	0.910	9 hours	1.58
77.01	12 hours	2.06	9 hours	3.45
77.02	12 hours	4.54	9 hours	7.79
77.03	12 hours	8.65	9 hours	13.4
77.04	12 hours	9.67	9 hours	15.1
77.05	12 hours	10.3	9 hours	16.3
77.06	12 hours	10.5	9 hours	16.5
77.07	12 hours	20.3	9 hours	33.9
77.08	12 hours	20.8	9 hours	34.4
77.09	12 hours	20.9	9 hours	34.6
77.10	12 hours	21.3	9 hours	35.2
77.11	12 hours	24.3	9 hours	40.2
77.12	12 hours	27.2	9 hours	44.0
77.13	12 hours	32.8	9 hours	51.2
78.01	12 hours	1.94	9 hours	3.04
78.02	12 hours	4.59	9 hours	7.37
79.01	12 hours	1.29	9 hours	2.38
80.01	12 hours	0.570	9 hours	1.12

5% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
81.01	12 hours	1.28	9 hours	2.22
81.02	12 hours	1.42	9 hours	2.52
81.03	12 hours	2.86	9 hours	5.35
81.04	12 hours	5.28	9 hours	10.3
82.01	12 hours	0.280	4.50 hours	0.780
82.02	12 hours	1.18	9 hours	2.28
82.03	12 hours	1.35	9 hours	2.63
83.01	12 hours	0.850	9 hours	1.70
83.02	12 hours	1.70	4.50 hours	3.65
83.03	12 hours	1.89	4.50 hours	4.04
84.01	12 hours	0.160	1.50 hour	0.560
84.02	12 hours	0.600	2 hours	1.73
85.01	12 hours	0.320	4.50 hours	0.870
86.01	12 hours	0.050	1.50 hour	0.270
87.01	12 hours	0.250	1.50 hour	0.880
87.02	12 hours	0.460	4.50 hours	1.41
88.01	12 hours	0.100	4.50 hours	0.320
89.01	12 hours	0.150	1.50 hour	0.340
90.01	12 hours	0.090	1.50 hour	0.300
91.01	12 hours	0.280	2 hours	1.02
92.01	12 hours	0.470	9 hours	0.760
92.02	12 hours	1.88	9 hours	2.81
92.03	12 hours	2.00	9 hours	3.02
92.04	12 hours	2.91	9 hours	5.08
93.01	12 hours	0.150	6 hours	0.330
94.01	12 hours	0.170	1.50 hour	0.620
95.01	12 hours	0.210	1.50 hour	0.800
96.01	12 hours	0.090	1.50 hour	0.400
97.01	12 hours	0.100	1.50 hour	0.440
98.01	12 hours	0.280	6 hours	0.620
99.01	12 hours	1.66	12 hours	2.31
99.02	12 hours	2.21	9 hours	3.14
100.01	12 hours	0.050	1.50 hour	0.170
101.01	12 hours	0.040	1.50 hour	0.180
102.01	12 hours	0.060	1.50 hour	0.250
103.01	12 hours	0.040	1.50 hour	0.240
104.01	12 hours	0.130	1.50 hour	0.480
104.02	12 hours	0.340	2 hours	1.14
105.01	12 hours	0.030	1.50 hour	0.190
106.01	18 hours	3.30	12 hours	3.66
106.02	18 hours	4.76	12 hours	6.01
107.01	12 hours	1.63	9 hours	2.55
108.01	12 hours	1.09	12 hours	1.50
108.02	12 hours	1.12	12 hours	1.53
109.01	12 hours	2.26	9 hours	3.60
110.01	12 hours	1.31	9 hours	2.30
111.01	12 hours	0.610	4.50 hours	1.51
112.01	12 hours	0.470	4.50 hours	1.22
113.01	12 hours	0.230	4.50 hours	0.700
114.01	12 hours	7.35	12 hours	11.1

5% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
114.02	12 hours	11.2	12 hours	16.7
114.03	12 hours	21.7	12 hours	31.3
114.04	18 hours	34.4	12 hours	48.9
114.05	18 hours	45.9	12 hours	62.1
114.06	12 hours	109	12 hours	154
114.07	12 hours	118	12 hours	168
114.08	12 hours	128	12 hours	182
114.09	12 hours	132	12 hours	187
114.10	12 hours	139	12 hours	198
114.11	12 hours	148	12 hours	213
114.12	12 hours	150	12 hours	216
114.13	12 hours	170	12 hours	242
114.14	12 hours	177	12 hours	252
114.15	12 hours	178	12 hours	253
114.16	12 hours	381	12 hours	539
114.17	12 hours	406	12 hours	574
114.18	12 hours	413	12 hours	583
114.19	12 hours	416	12 hours	587
114.20	12 hours	421	12 hours	593
114.21	12 hours	453	12 hours	638
114.22	12 hours	458	12 hours	644
114.23	12 hours	460	12 hours	646
114.24	12 hours	464	12 hours	652
114.25	12 hours	471	12 hours	662
115.01	12 hours	3.49	9 hours	5.27
116.01	12 hours	6.59	12 hours	9.27
117.01	12 hours	4.54	9 hours	7.37
118.01	18 hours	11.6	12 hours	12.9
119.01	12 hours	12.7	12 hours	17.2
119.02	12 hours	19.7	12 hours	27.2
119.03	12 hours	53.3	9 hours	76.8
119.04	12 hours	61.7	9 hours	88.8
120.01	12 hours	5.04	9 hours	7.42
121.01	12 hours	7.01	9 hours	11.0
121.02	12 hours	18.2	9 hours	27.7
121.03	12 hours	23.6	9 hours	36.5
121.04	12 hours	31.3	9 hours	47.2
122.01	12 hours	8.47	9 hours	12.7
123.01	12 hours	4.33	9 hours	6.89
124.01	12 hours	6.45	12 hours	9.04
125.01	12 hours	5.33	9 hours	8.14
126.01	12 hours	8.90	12 hours	13.0
127.01	12 hours	6.45	9 hours	9.59
128.01	12 hours	5.23	9 hours	8.20
129.01	12 hours	4.20	9 hours	7.08
129.02	12 hours	7.87	9 hours	14.2
129.03	12 hours	10.1	9 hours	18.3
130.01	12 hours	2.56	9 hours	4.78
131.01	12 hours	1.98	9 hours	3.72
131.02	12 hours	8.32	12 hours	11.9

5% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
131.03	12 hours	12.8	12 hours	18.5
132.01	12 hours	3.32	9 hours	5.96
133.01	12 hours	10.2	9 hours	15.6
133.02	12 hours	21.9	9 hours	34.1
133.03	12 hours	35.6	9 hours	52.3
133.04	12 hours	40.3	9 hours	60.1
133.05	12 hours	50.6	9 hours	75.1
133.06	12 hours	50.9	9 hours	75.4
133.07	12 hours	90.1	12 hours	125
133.08	12 hours	90.9	12 hours	126
133.09	12 hours	109	12 hours	152
133.10	12 hours	120	12 hours	168
133.11	12 hours	135	12 hours	189
133.12	12 hours	188	12 hours	264
133.13	12 hours	197	12 hours	278
133.14	12 hours	201	12 hours	283
134.01	12 hours	7.67	9 hours	12.1
135.01	12 hours	9.74	12 hours	13.5
136.01	12 hours	3.51	9 hours	6.03
137.01	12 hours	4.34	9 hours	7.02
138.01	18 hours	15.9	12 hours	18.7
138.02	18 hours	19.6	12 hours	23.8
138.03	18 hours	33.4	12 hours	43.8
139.01	12 hours	6.84	12 hours	9.62
139.02	12 hours	13.1	12 hours	18.1
140.01	12 hours	0.710	4.50 hours	1.79
141.01	12 hours	10.0	9 hours	15.1
141.02	12 hours	11.9	9 hours	18.2
142.01	12 hours	1.26	9 hours	2.41
143.01	12 hours	7.81	9 hours	12.6
144.01	12 hours	7.46	9 hours	11.3
145.01	12 hours	5.46	9 hours	8.49
145.02	12 hours	15.1	12 hours	21.3
145.03	12 hours	23.4	9 hours	33.6
145.04	12 hours	44.9	12 hours	63.3
145.05	12 hours	45.0	12 hours	63.5
145.06	12 hours	51.7	9 hours	74.8
146.01	12 hours	7.35	12 hours	10.1
147.01	12 hours	4.11	9 hours	6.80
148.01	12 hours	10.6	12 hours	14.5
148.02	12 hours	16.1	12 hours	22.3
148.03	12 hours	21.3	12 hours	29.7
149.01	12 hours	4.72	9 hours	7.10
150.01	12 hours	4.42	9 hours	6.42
151.01	12 hours	3.77	9 hours	6.45
152.01	12 hours	1.55	9 hours	3.08
153.01	12 hours	5.08	9 hours	8.14
154.01	12 hours	2.07	9 hours	3.74
154.02	12 hours	2.73	9 hours	5.13
155.01	12 hours	7.75	12 hours	9.91

5% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
155.02	12 hours	7.84	12 hours	10.1
155.03	12 hours	13.1	12 hours	17.6
155.04	12 hours	13.7	12 hours	18.3
155.05	12 hours	21.8	12 hours	29.7
155.06	12 hours	25.7	12 hours	35.3
156.01	12 hours	4.47	12 hours	6.29
156.02	12 hours	4.65	12 hours	6.55
157.01	12 hours	3.28	12 hours	4.67
158.01	12 hours	1.74	9 hours	2.68
159.01	12 hours	1.66	9 hours	2.78
160.01	12 hours	3.44	9 hours	5.06
160.02	12 hours	3.69	9 hours	5.45
161.01	12 hours	6.77	12 hours	9.16
162.01	12 hours	0.590	4.50 hours	1.41
162.02	12 hours	4.13	12 hours	5.77
162.03	12 hours	4.20	12 hours	5.88
163.01	12 hours	0.860	9 hours	1.79
163.02	12 hours	2.56	9 hours	4.83
163.03	12 hours	7.79	9 hours	11.8
163.04	12 hours	11.8	12 hours	17.2
163.05	12 hours	25.3	12 hours	34.9
163.06	12 hours	26.3	12 hours	36.2
164.01	18 hours	9.12	12 hours	11.5
165.01	12 hours	4.35	12 hours	5.69
165.02	12 hours	5.04	12 hours	6.68
166.01	12 hours	1.33	9 hours	2.29
166.02	12 hours	2.83	9 hours	4.47
166.03	12 hours	4.90	9 hours	7.04
167.01	12 hours	1.04	9 hours	1.95
167.02	12 hours	1.97	9 hours	3.65
168.01	12 hours	2.84	9 hours	4.49
168.02	12 hours	2.86	9 hours	4.52
169.01	12 hours	5.18	9 hours	7.45
169.02	12 hours	5.88	9 hours	8.61
170.01	12 hours	0.860	9 hours	1.72
171.01	12 hours	0.970	9 hours	1.71
172.01	12 hours	0.620	9 hours	1.24
173.01	12 hours	1.18	9 hours	2.27
173.02	12 hours	9.11	9 hours	13.8
173.03	12 hours	17.9	9 hours	26.5
173.04	12 hours	19.4	9 hours	28.3
173.05	12 hours	24.7	9 hours	34.9
173.06	12 hours	31.8	9 hours	43.3
173.07	12 hours	57.6	9 hours	83.5
174.01	12 hours	0.940	6 hours	1.96
175.01	12 hours	0.740	9 hours	1.41
176.01	12 hours	0.670	6 hours	1.45
176.02	12 hours	3.65	9 hours	6.12
177.01	18 hours	2.77	30 hours	2.95
178.01	12 hours	2.08	12 hours	2.91

5% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
179.01	12 hours	0.360	9 hours	0.620
180.01	18 hours	2.90	12 hours	3.31
180.02	18 hours	3.22	12 hours	3.68
181.01	12 hours	2.15	12 hours	3.03
182.01	12 hours	0.300	6 hours	0.720
183.01	12 hours	3.05	9 hours	5.66
183.02	12 hours	5.80	9 hours	9.85
183.03	12 hours	10.4	9 hours	16.9
183.04	12 hours	16.4	9 hours	25.6
183.05	12 hours	17.1	9 hours	26.7
183.06	12 hours	25.9	9 hours	40.7
184.01	12 hours	0.560	6 hours	1.21
184.02	12 hours	3.55	9 hours	5.45
185.01	12 hours	0.690	4.50 hours	1.67
185.02	12 hours	2.96	9 hours	5.02
186.01	12 hours	1.34	9 hours	2.41
187.01	12 hours	1.68	9 hours	2.72
187.02	12 hours	3.19	9 hours	5.01
188.01	12 hours	0.530	6 hours	1.12
189.01	12 hours	0.550	6 hours	1.26
190.01	12 hours	0.370	4.50 hours	1.01
191.01	12 hours	1.03	9 hours	1.83
192.01	12 hours	1.20	4.50 hours	2.98
193.01	12 hours	1.02	4.50 hours	2.85
194.01	12 hours	0.180	2 hours	0.620
195.01	12 hours	0.360	4.50 hours	1.08
196.01	12 hours	0.410	4.50 hours	1.17
197.01	12 hours	0.340	1.50 hour	1.15
198.01	12 hours	0.480	4.50 hours	1.39
199.01	12 hours	1.04	9 hours	2.00
199.02	12 hours	1.41	9 hours	2.84
200.01	12 hours	0.190	4.50 hours	0.630
201.01	12 hours	0.450	4.50 hours	1.34
202.01	12 hours	3.78	12 hours	4.92
203.01	12 hours	0.630	4.50 hours	1.74
204.01	12 hours	0.440	4.50 hours	1.41
205.01	12 hours	0.560	4.50 hours	1.72
206.01	12 hours	0.150	1.50 hour	0.680
207.01	12 hours	0.530	1.50 hour	2.11
208.01	12 hours	0.760	6 hours	1.59
208.02	12 hours	1.06	12 hours	2.30
208.03	12 hours	2.00	12 hours	4.13
208.04	12 hours	3.75	9 hours	6.26
208.05	12 hours	4.72	9 hours	7.22
208.06	18 hours	5.68	9 hours	8.11
209.01	12 hours	0.140	1.50 hour	0.650
210.01	12 hours	0.270	1.50 hour	0.870
211.01	12 hours	0.280	4.50 hours	0.840
211.02	12 hours	0.320	4.50 hours	0.960
211.03	12 hours	1.14	1.50 hour	2.71

5% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
212.01	12 hours	0.130	1.50 hour	0.780
_junc_10	12 hours	25.4	12 hours	34.9
_junc_108	12 hours	0.490	4.50 hours	1.38
_junc_11	12 hours	405	12 hours	572
_junc_111	12 hours	2.77	9 hours	5.15
_junc_114	12 hours	1.66	12 hours	2.31
_junc_12	12 hours	12.7	9 hours	19.9
_junc_13	12 hours	124	12 hours	177
_junc_138	12 hours	8.70	9 hours	14.4
_junc_14	12 hours	106	12 hours	149
_junc_142	12 hours	6.73	9 hours	11.8
_junc_143	12 hours	200	12 hours	281
_junc_15	12 hours	378	12 hours	536
_junc_16	12 hours	413	12 hours	582
_junc_165	12 hours	28.2	9 hours	45.4
_junc_168	12 hours	26.4	9 hours	43.2
_junc_17	12 hours	118	12 hours	167
_junc_174	12 hours	19.3	9 hours	30.0
_junc_18	18 hours	45.8	12 hours	61.9
_junc_181	12 hours	0.080	1.50 hour	0.420
_junc_185	12 hours	0.090	1.50 hour	0.400
_junc_186	12 hours	0.270	1.50 hour	1.06
_junc_187	12 hours	2.17	9 hours	3.47
_junc_19	12 hours	163	12 hours	234
_junc_193	12 hours	9.34	9 hours	15.3
_junc_194	12 hours	13.4	9 hours	21.8
_junc_199	12 hours	16.3	9 hours	26.0
_junc_2	12 hours	192	12 hours	272
_junc_20	12 hours	136	12 hours	194
_junc_204	12 hours	7.25	9 hours	11.0
_junc_21	12 hours	148	12 hours	212
_junc_22	12 hours	420	12 hours	593
_junc_228	12 hours	0.450	2 hours	1.63
_junc_23	12 hours	426	12 hours	600
_junc_231	12 hours	173	12 hours	247
_junc_232	12 hours	21.8	9 hours	36.1
_junc_233	12 hours	31.0	9 hours	49.3
_junc_234	12 hours	411	9 hours	621
_junc_24	12 hours	26.2	12 hours	38.2
_junc_25	12 hours	20.3	12 hours	28.6
_junc_26	12 hours	17.8	12 hours	25.9
_junc_263	12 hours	10.3	9 hours	16.3
_junc_265	12 hours	10.1	9 hours	16.1
_junc_27	12 hours	10.8	12 hours	16.1
_junc_28	12 hours	460	12 hours	646
_junc_29	12 hours	458	12 hours	644
_junc_3	12 hours	16.9	12 hours	23.0
_junc_30	12 hours	462	12 hours	650
_junc_31	12 hours	13.5	9 hours	23.3
_junc_32	12 hours	469	12 hours	659

5% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
_junc_324	12 hours	416	9 hours	629
_junc_328	12 hours	482	9 hours	726
_junc_329	12 hours	27.6	9 hours	38.0
_junc_33	12 hours	13.1	9 hours	23.2
_junc_330	12 hours	57.3	9 hours	83.2
_junc_331	12 hours	1006	9 hours	1449
_junc_34	12 hours	21.3	9 hours	35.7
_junc_35	12 hours	7.23	9 hours	11.9
_junc_36	12 hours	404	12 hours	610
_junc_37	12 hours	15.5	12 hours	23.3
_junc_38	12 hours	12.3	9 hours	20.8
_junc_39	12 hours	448	9 hours	676
_junc_4	12 hours	17.7	12 hours	24.3
_junc_40	12 hours	22.2	12 hours	33.7
_junc_41	12 hours	13.5	9 hours	21.1
_junc_42	12 hours	25.3	9 hours	38.1
_junc_43	12 hours	64.7	9 hours	99.6
_junc_44	12 hours	421	9 hours	636
_junc_45	12 hours	376	12 hours	568
_junc_46	12 hours	32.5	12 hours	48.8
_junc_47	12 hours	425	9 hours	643
_junc_48	12 hours	309	12 hours	468
_junc_49	12 hours	15.0	9 hours	23.9
_junc_5	12 hours	15.5	9 hours	23.6
_junc_50	12 hours	47.9	12 hours	71.6
_junc_51	12 hours	303	12 hours	458
_junc_52	12 hours	54.9	12 hours	82.3
_junc_53	12 hours	15.0	12 hours	22.4
_junc_54	12 hours	76.5	12 hours	116
_junc_55	12 hours	86.3	12 hours	130
_junc_56	12 hours	278	12 hours	422
_junc_57	12 hours	115	12 hours	174
_junc_58	12 hours	264	12 hours	399
_junc_59	12 hours	247	12 hours	374
_junc_6	12 hours	50.8	9 hours	73.3
_junc_60	12 hours	257	12 hours	390
_junc_61	12 hours	24.1	12 hours	36.3
_junc_62	12 hours	118	9 hours	183
_junc_63	12 hours	105	9 hours	165
_junc_64	12 hours	48.1	9 hours	78.4
_junc_65	12 hours	13.6	9 hours	23.5
_junc_66	12 hours	89.7	9 hours	139
_junc_67	12 hours	53.8	9 hours	87.1
_junc_68	12 hours	38.4	9 hours	63.9
_junc_69	12 hours	28.7	9 hours	47.6
_junc_7	12 hours	58.5	9 hours	84.8
_junc_70	12 hours	21.9	9 hours	36.4
_junc_71	12 hours	18.3	12 hours	26.9
_junc_72	12 hours	32.3	12 hours	48.4
_junc_73	12 hours	15.6	9 hours	25.3

5% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
_junc_74	12 hours	10.2	9 hours	16.2
_junc_75	18 hours	32.1	12 hours	41.7
_junc_76	12 hours	12.7	12 hours	17.8
_junc_77	12 hours	31.5	9 hours	46.5
_junc_78	12 hours	39.0	9 hours	58.0
_junc_79	12 hours	44.6	9 hours	67.0
_junc_8	12 hours	22.5	9 hours	34.6
_junc_80	12 hours	17.9	9 hours	27.6
_junc_81	12 hours	83.1	12 hours	115
_junc_82	12 hours	19.2	9 hours	27.8
_junc_83	12 hours	15.3	12 hours	21.1
_junc_84	12 hours	102	12 hours	143
_junc_85	12 hours	20.5	12 hours	28.6
_junc_86	12 hours	127	12 hours	178
_junc_87	12 hours	44.6	12 hours	62.9
_junc_88	12 hours	48.7	9 hours	69.6
_junc_89	12 hours	116	12 hours	163
_junc_9	12 hours	30.0	9 hours	45.1
_junc_90	12 hours	186	12 hours	262
_junc_91	12 hours	12.4	12 hours	16.6

2% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
1.01	12 hours	15.4	9 hours	25.9
1.02	12 hours	20.1	9 hours	34.9
1.03	12 hours	28.0	9 hours	49.4
1.04	12 hours	39.8	9 hours	69.9
1.05	12 hours	50.9	9 hours	89.2
1.06	12 hours	51.9	9 hours	91.1
1.07	12 hours	61.8	9 hours	107
1.08	12 hours	67.9	9 hours	117
1.09	12 hours	69.8	9 hours	120
1.10	12 hours	114	9 hours	188
1.11	12 hours	137	9 hours	229
1.12	12 hours	153	9 hours	251
1.13	12 hours	312	9 hours	501
1.14	12 hours	324	9 hours	520
1.15	12 hours	325	9 hours	521
1.16	12 hours	331	9 hours	530
1.17	12 hours	356	9 hours	571
1.18	12 hours	382	9 hours	611
1.19	12 hours	388	9 hours	620
1.20	12 hours	473	9 hours	758
1.21	12 hours	476	9 hours	762
1.22	12 hours	510	9 hours	819
1.23	12 hours	519	9 hours	833
1.24	12 hours	519	9 hours	833
1.25	12 hours	521	9 hours	837
1.26	12 hours	526	9 hours	846
1.27	12 hours	532	9 hours	855
1.28	12 hours	533	9 hours	855
1.29	12 hours	562	9 hours	900
1.30	12 hours	564	9 hours	903
1.31	12 hours	608	9 hours	970
1.32	12 hours	609	9 hours	971
1.33	12 hours	1196	9 hours	1827
1.34	12 hours	1197	9 hours	1829
1.35	12 hours	1263	9 hours	1924
1.36	12 hours	1264	9 hours	1925
1.37	12 hours	1265	9 hours	1926
1.38	12 hours	1266	9 hours	1927
1.39	12 hours	1272	9 hours	1935
1.40	12 hours	1282	9 hours	1947
2.01	12 hours	3.90	9 hours	7.50
3.01	12 hours	7.04	9 hours	12.8
4.01	12 hours	7.53	9 hours	12.9
5.01	12 hours	7.77	9 hours	13.8
6.01	12 hours	7.93	12 hours	12.2
7.01	12 hours	5.10	12 hours	7.89
8.01	18 hours	14.3	12 hours	21.4
8.02	12 hours	28.0	12 hours	42.7
8.03	12 hours	28.1	12 hours	42.8
8.04	12 hours	40.8	9 hours	62.8

2% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
8.05	12 hours	42.1	9 hours	64.9
9.01	12 hours	8.93	9 hours	14.1
10.01	12 hours	5.27	9 hours	8.93
10.02	12 hours	12.7	9 hours	21.4
11.01	12 hours	7.41	9 hours	12.4
12.01	12 hours	6.15	9 hours	11.2
12.02	12 hours	10.7	9 hours	19.7
12.03	12 hours	17.1	9 hours	31.1
13.01	12 hours	2.05	9 hours	4.25
14.01	12 hours	5.09	9 hours	8.79
14.02	12 hours	6.15	9 hours	10.8
15.01	12 hours	0.850	6 hours	2.09
16.01	12 hours	6.53	12 hours	9.89
16.02	12 hours	9.83	12 hours	15.0
17.01	12 hours	10.0	12 hours	15.4
17.02	12 hours	23.1	9 hours	36.4
17.03	12 hours	29.8	9 hours	47.4
17.04	12 hours	42.2	9 hours	65.3
17.05	12 hours	49.8	9 hours	77.2
17.06	12 hours	62.1	9 hours	95.7
17.07	12 hours	71.0	9 hours	112
17.08	12 hours	97.7	9 hours	158
17.09	12 hours	100.0	9 hours	162
17.10	12 hours	108	9 hours	173
17.11	12 hours	152	9 hours	239
17.12	12 hours	154	9 hours	243
17.13	12 hours	155	9 hours	245
18.01	12 hours	9.30	9 hours	15.0
19.01	12 hours	4.55	9 hours	7.42
20.01	12 hours	11.0	12 hours	16.6
21.01	12 hours	9.10	12 hours	13.7
21.02	12 hours	10.2	12 hours	15.3
22.01	12 hours	6.78	9 hours	12.3
23.01	12 hours	5.60	9 hours	9.36
23.02	12 hours	17.9	9 hours	29.8
23.03	12 hours	24.4	9 hours	41.4
23.04	12 hours	24.7	9 hours	42.0
24.01	12 hours	7.21	9 hours	12.1
25.01	12 hours	2.49	9 hours	5.10
26.01	12 hours	7.76	12 hours	11.9
26.02	12 hours	7.86	12 hours	12.0
27.01	12 hours	9.93	9 hours	16.2
27.02	12 hours	21.6	9 hours	34.4
27.03	12 hours	36.5	12 hours	55.9
28.01	12 hours	2.03	9 hours	4.24
28.02	12 hours	2.76	9 hours	5.72
29.01	12 hours	8.58	12 hours	13.2
30.01	12 hours	2.51	9 hours	4.48
31.01	12 hours	1.84	9 hours	3.14
32.01	12 hours	10.5	12 hours	16.0

2% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
33.01	12 hours	5.06	9 hours	7.89
34.01	12 hours	7.42	9 hours	12.0
34.02	12 hours	18.2	9 hours	31.9
34.03	12 hours	18.4	9 hours	32.3
35.01	12 hours	5.14	9 hours	8.06
35.02	12 hours	10.7	12 hours	16.3
35.03	12 hours	14.5	12 hours	22.0
35.04	12 hours	14.7	12 hours	22.3
35.05	12 hours	23.1	12 hours	35.2
36.01	12 hours	0.630	9 hours	1.28
37.01	12 hours	4.30	9 hours	6.69
38.01	12 hours	4.41	12 hours	6.65
38.02	12 hours	5.39	9 hours	8.22
39.01	12 hours	5.97	9 hours	9.57
39.02	12 hours	12.4	9 hours	21.9
39.03	12 hours	18.1	9 hours	33.1
39.04	12 hours	36.0	9 hours	60.1
39.05	12 hours	45.6	9 hours	75.4
39.06	12 hours	84.0	9 hours	137
40.01	12 hours	3.21	9 hours	6.64
41.01	12 hours	4.06	9 hours	8.40
42.01	12 hours	8.53	9 hours	13.8
43.01	12 hours	2.69	9 hours	4.91
44.01	12 hours	9.24	9 hours	15.7
44.02	12 hours	23.2	9 hours	38.4
44.03	12 hours	35.4	9 hours	56.5
45.01	12 hours	6.08	9 hours	11.3
46.01	12 hours	8.72	12 hours	13.0
47.01	12 hours	7.84	9 hours	13.5
47.02	12 hours	10.9	9 hours	19.0
47.03	12 hours	11.8	9 hours	21.0
47.04	12 hours	24.4	9 hours	41.9
47.05	12 hours	31.5	9 hours	54.8
48.01	12 hours	2.96	9 hours	5.34
49.01	12 hours	4.29	9 hours	7.93
49.02	12 hours	4.90	9 hours	9.29
49.03	12 hours	4.97	9 hours	9.41
50.01	12 hours	0.820	6 hours	2.04
51.01	12 hours	2.84	9 hours	5.27
52.01	12 hours	1.29	9 hours	2.63
52.02	12 hours	3.11	9 hours	5.79
53.01	12 hours	4.56	9 hours	7.46
54.01	12 hours	1.75	9 hours	3.06
54.02	12 hours	2.56	9 hours	4.73
54.03	12 hours	2.89	9 hours	5.43
55.01	12 hours	2.15	9 hours	4.04
56.01	12 hours	2.95	9 hours	5.73
56.02	12 hours	4.93	9 hours	8.92
56.03	12 hours	5.80	9 hours	10.3
57.01	12 hours	2.55	9 hours	4.90

2% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
57.02	12 hours	6.11	9 hours	8.97
58.01	12 hours	4.75	9 hours	7.35
58.02	12 hours	6.94	9 hours	10.8
58.03	12 hours	10.1	9 hours	15.7
58.04	12 hours	16.8	9 hours	27.3
58.05	12 hours	18.1	9 hours	29.0
58.06	12 hours	26.3	9 hours	41.6
58.07	12 hours	30.0	9 hours	47.0
59.01	12 hours	2.12	9 hours	3.61
60.01	12 hours	1.97	9 hours	3.88
60.02	12 hours	2.54	9 hours	4.88
60.03	12 hours	5.48	9 hours	9.41
61.01	12 hours	1.61	9 hours	2.68
62.01	12 hours	0.380	9 hours	0.740
63.01	12 hours	0.030	2 hours	0.140
64.01	12 hours	1.09	9 hours	2.05
64.02	12 hours	6.09	9 hours	10.7
65.01	12 hours	0.630	9 hours	1.20
66.01	12 hours	0.780	6 hours	1.72
66.02	12 hours	2.83	9 hours	4.85
67.01	12 hours	0.150	1.50 hour	0.710
68.01	12 hours	0.240	2 hours	1.02
69.01	12 hours	0.240	1.50 hour	1.14
69.02	12 hours	0.410	2 hours	1.62
70.01	12 hours	0.180	2 hours	0.730
71.01	12 hours	0.200	1.50 hour	0.920
72.01	12 hours	0.230	2 hours	1.01
73.01	12 hours	0.170	2 hours	0.750
74.01	12 hours	1.48	9 hours	2.60
75.01	48 hours	1.46	36 hours	1.31
75.02	48 hours	1.72	36 hours	1.58
76.01	12 hours	1.06	9 hours	1.90
76.02	12 hours	1.14	9 hours	2.01
77.01	12 hours	2.54	9 hours	4.42
77.02	12 hours	5.60	9 hours	9.93
77.03	12 hours	10.8	9 hours	17.3
77.04	12 hours	12.0	9 hours	19.6
77.05	12 hours	12.8	9 hours	21.0
77.06	12 hours	13.0	9 hours	21.3
77.07	12 hours	25.3	9 hours	43.4
77.08	12 hours	25.8	9 hours	44.0
77.09	12 hours	26.0	9 hours	44.3
77.10	12 hours	26.5	9 hours	45.1
77.11	12 hours	30.3	9 hours	51.4
77.12	12 hours	33.9	9 hours	56.5
77.13	12 hours	41.1	9 hours	66.0
78.01	12 hours	2.39	9 hours	3.92
78.02	12 hours	5.74	9 hours	9.46
79.01	12 hours	1.59	9 hours	2.99
80.01	12 hours	0.700	6 hours	1.42

2% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
81.01	12 hours	1.59	9 hours	2.83
81.02	12 hours	1.76	9 hours	3.19
81.03	12 hours	3.54	9 hours	6.72
81.04	12 hours	6.51	9 hours	12.8
82.01	12 hours	0.340	2 hours	0.980
82.02	12 hours	1.46	9 hours	2.84
82.03	12 hours	1.67	9 hours	3.29
83.01	12 hours	1.06	6 hours	2.13
83.02	12 hours	2.09	4.50 hours	4.58
83.03	12 hours	2.32	2 hours	5.14
84.01	12 hours	0.200	1.50 hour	0.700
84.02	12 hours	0.730	2 hours	2.20
85.01	12 hours	0.400	4.50 hours	1.09
86.01	12 hours	0.060	1.50 hour	0.330
87.01	12 hours	0.300	1.50 hour	1.09
87.02	12 hours	0.560	2 hours	1.80
88.01	12 hours	0.120	2 hours	0.410
89.01	12 hours	0.180	1.50 hour	0.420
90.01	12 hours	0.120	1.50 hour	0.370
91.01	12 hours	0.340	2 hours	1.23
92.01	12 hours	0.580	9 hours	0.980
92.02	12 hours	2.34	9 hours	3.67
92.03	12 hours	2.48	9 hours	3.95
92.04	12 hours	3.64	9 hours	6.44
93.01	12 hours	0.180	6 hours	0.420
94.01	12 hours	0.210	1.50 hour	0.770
95.01	12 hours	0.260	1.50 hour	0.990
96.01	12 hours	0.110	1.50 hour	0.500
97.01	12 hours	0.120	1.50 hour	0.550
98.01	12 hours	0.350	6 hours	0.790
99.01	12 hours	2.08	12 hours	2.92
99.02	12 hours	2.77	9 hours	4.12
100.01	12 hours	0.060	2 hours	0.220
101.01	12 hours	0.050	1.50 hour	0.230
102.01	12 hours	0.080	1.50 hour	0.310
103.01	12 hours	0.050	1.50 hour	0.290
104.01	12 hours	0.160	1.50 hour	0.590
104.02	12 hours	0.420	2 hours	1.44
105.01	12 hours	0.040	1.50 hour	0.230
106.01	18 hours	4.31	12 hours	5.00
106.02	18 hours	6.17	12 hours	7.89
107.01	12 hours	2.03	9 hours	3.30
108.01	12 hours	1.38	12 hours	1.92
108.02	12 hours	1.40	12 hours	1.96
109.01	12 hours	2.79	9 hours	4.64
110.01	12 hours	1.63	9 hours	2.91
111.01	12 hours	0.750	2 hours	1.97
112.01	12 hours	0.570	2 hours	1.58
113.01	12 hours	0.280	4.50 hours	0.860
114.01	12 hours	9.16	9 hours	14.3

2% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
114.02	12 hours	13.9	9 hours	22.0
114.03	12 hours	27.0	9 hours	40.7
114.04	18 hours	43.8	12 hours	63.6
114.05	18 hours	58.4	12 hours	81.7
114.06	12 hours	137	9 hours	201
114.07	12 hours	148	9 hours	218
114.08	12 hours	161	9 hours	237
114.09	12 hours	165	9 hours	242
114.10	12 hours	174	9 hours	257
114.11	12 hours	186	9 hours	279
114.12	12 hours	188	9 hours	283
114.13	12 hours	213	9 hours	316
114.14	12 hours	222	9 hours	329
114.15	12 hours	223	9 hours	331
114.16	12 hours	478	9 hours	708
114.17	12 hours	509	9 hours	754
114.18	12 hours	519	9 hours	766
114.19	12 hours	523	9 hours	771
114.20	12 hours	528	9 hours	779
114.21	12 hours	569	9 hours	834
114.22	12 hours	575	9 hours	842
114.23	12 hours	577	9 hours	845
114.24	12 hours	582	9 hours	853
114.25	12 hours	592	9 hours	866
115.01	12 hours	4.33	9 hours	6.91
116.01	12 hours	8.22	9 hours	12.0
117.01	12 hours	5.64	9 hours	9.62
118.01	18 hours	14.8	12 hours	17.8
119.01	12 hours	15.9	12 hours	22.5
119.02	12 hours	24.6	9 hours	35.2
119.03	12 hours	66.1	9 hours	102
119.04	12 hours	76.5	9 hours	117
120.01	12 hours	6.22	9 hours	9.75
121.01	12 hours	8.64	9 hours	14.3
121.02	12 hours	22.4	9 hours	36.3
121.03	12 hours	29.1	9 hours	47.8
121.04	12 hours	38.6	9 hours	61.9
122.01	12 hours	10.4	9 hours	16.6
123.01	12 hours	5.34	9 hours	8.98
124.01	12 hours	8.04	9 hours	11.7
125.01	12 hours	6.56	9 hours	10.7
126.01	12 hours	11.2	12 hours	16.9
127.01	12 hours	7.98	9 hours	12.6
128.01	12 hours	6.50	9 hours	10.7
129.01	12 hours	5.22	9 hours	9.19
129.02	12 hours	9.80	9 hours	18.3
129.03	12 hours	12.6	9 hours	23.6
130.01	12 hours	3.16	9 hours	6.11
131.01	12 hours	2.42	9 hours	4.71
131.02	12 hours	10.5	12 hours	15.4

2% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
131.03	12 hours	16.2	12 hours	23.9
132.01	12 hours	4.12	9 hours	7.64
133.01	12 hours	12.6	9 hours	20.4
133.02	12 hours	27.1	9 hours	44.6
133.03	12 hours	44.1	9 hours	68.8
133.04	12 hours	49.9	9 hours	79.0
133.05	12 hours	62.7	9 hours	98.8
133.06	12 hours	63.0	9 hours	99.3
133.07	12 hours	113	9 hours	163
133.08	12 hours	114	9 hours	165
133.09	12 hours	136	9 hours	200
133.10	12 hours	150	9 hours	221
133.11	12 hours	170	9 hours	249
133.12	12 hours	235	9 hours	348
133.13	12 hours	247	9 hours	366
133.14	12 hours	251	9 hours	373
134.01	12 hours	9.42	9 hours	15.8
135.01	12 hours	12.2	12 hours	17.4
136.01	12 hours	4.34	9 hours	7.75
137.01	12 hours	5.35	9 hours	9.10
138.01	18 hours	20.2	12 hours	25.5
138.02	18 hours	24.9	12 hours	32.2
138.03	18 hours	42.4	12 hours	58.0
139.01	12 hours	8.50	9 hours	12.6
139.02	12 hours	16.4	12 hours	23.4
140.01	12 hours	0.880	4.50 hours	2.30
141.01	12 hours	12.4	9 hours	19.8
141.02	12 hours	14.7	9 hours	23.8
142.01	12 hours	1.55	9 hours	3.05
143.01	12 hours	9.61	9 hours	16.4
144.01	12 hours	9.20	9 hours	14.8
145.01	12 hours	6.71	9 hours	11.1
145.02	12 hours	18.8	9 hours	28.2
145.03	12 hours	29.1	9 hours	44.4
145.04	12 hours	55.9	9 hours	83.7
145.05	12 hours	56.0	9 hours	83.9
145.06	12 hours	64.3	9 hours	98.9
146.01	12 hours	9.18	12 hours	13.1
147.01	12 hours	5.09	9 hours	8.76
148.01	12 hours	13.3	12 hours	18.8
148.02	12 hours	20.1	9 hours	28.8
148.03	12 hours	26.5	9 hours	38.8
149.01	12 hours	5.82	9 hours	9.32
150.01	12 hours	5.52	9 hours	8.39
151.01	12 hours	4.69	9 hours	8.35
152.01	12 hours	1.92	9 hours	3.89
153.01	12 hours	6.30	9 hours	10.7
154.01	12 hours	2.55	9 hours	4.81
154.02	12 hours	3.36	9 hours	6.52
155.01	12 hours	9.85	12 hours	13.2

2% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
155.02	12 hours	9.97	12 hours	13.4
155.03	12 hours	16.6	12 hours	22.7
155.04	12 hours	17.3	12 hours	23.6
155.05	12 hours	27.4	9 hours	38.4
155.06	12 hours	32.3	9 hours	46.0
156.01	12 hours	5.59	9 hours	8.19
156.02	12 hours	5.82	9 hours	8.56
157.01	12 hours	4.11	9 hours	6.10
158.01	12 hours	2.16	9 hours	3.47
159.01	12 hours	2.07	9 hours	3.54
160.01	12 hours	4.30	9 hours	6.60
160.02	12 hours	4.61	9 hours	7.11
161.01	12 hours	8.59	12 hours	11.9
162.01	12 hours	0.720	2 hours	1.85
162.02	12 hours	5.23	12 hours	7.38
162.03	12 hours	5.33	12 hours	7.51
163.01	12 hours	1.06	6 hours	2.29
163.02	12 hours	3.19	9 hours	6.17
163.03	12 hours	9.78	9 hours	15.6
163.04	12 hours	14.9	9 hours	22.4
163.05	12 hours	32.2	12 hours	46.0
163.06	12 hours	33.5	12 hours	47.7
164.01	18 hours	11.6	12 hours	15.6
165.01	12 hours	5.58	12 hours	7.52
165.02	12 hours	6.45	12 hours	8.72
166.01	12 hours	1.66	9 hours	2.91
166.02	12 hours	3.52	9 hours	5.76
166.03	12 hours	6.11	9 hours	9.25
167.01	12 hours	1.28	9 hours	2.44
167.02	12 hours	2.43	9 hours	4.58
168.01	12 hours	3.52	9 hours	5.80
168.02	12 hours	3.55	9 hours	5.83
169.01	12 hours	6.45	9 hours	9.75
169.02	12 hours	7.31	9 hours	11.2
170.01	12 hours	1.06	6 hours	2.19
171.01	12 hours	1.20	9 hours	2.17
172.01	12 hours	0.760	6 hours	1.61
173.01	12 hours	1.46	6 hours	2.85
173.02	12 hours	11.4	9 hours	18.0
173.03	12 hours	22.3	9 hours	34.7
173.04	12 hours	24.3	9 hours	37.1
173.05	12 hours	31.0	9 hours	45.9
173.06	12 hours	40.0	9 hours	57.2
173.07	12 hours	72.1	9 hours	109
174.01	12 hours	1.15	6 hours	2.54
175.01	12 hours	0.920	9 hours	1.77
176.01	12 hours	0.830	6 hours	1.87
176.02	12 hours	4.52	9 hours	7.85
177.01	18 hours	3.64	30 hours	3.98
178.01	12 hours	2.59	9 hours	3.74

2% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
179.01	12 hours	0.460	9 hours	0.790
180.01	18 hours	3.76	12 hours	4.49
180.02	18 hours	4.16	12 hours	4.97
181.01	12 hours	2.67	9 hours	3.92
182.01	12 hours	0.370	2 hours	0.940
183.01	12 hours	3.77	9 hours	7.12
183.02	12 hours	7.20	9 hours	12.6
183.03	12 hours	12.9	9 hours	21.8
183.04	12 hours	20.4	9 hours	33.2
183.05	12 hours	21.3	9 hours	34.7
183.06	12 hours	32.1	9 hours	52.5
184.01	12 hours	0.690	6 hours	1.56
184.02	12 hours	4.43	9 hours	7.12
185.01	12 hours	0.860	2 hours	2.19
185.02	12 hours	3.67	9 hours	6.45
186.01	12 hours	1.66	9 hours	3.04
187.01	12 hours	2.08	9 hours	3.49
187.02	12 hours	3.97	9 hours	6.47
188.01	12 hours	0.650	6 hours	1.44
189.01	12 hours	0.680	2 hours	1.61
190.01	12 hours	0.460	4.50 hours	1.27
191.01	12 hours	1.27	9 hours	2.32
192.01	12 hours	1.48	2 hours	3.89
193.01	12 hours	1.26	2 hours	3.61
194.01	12 hours	0.220	2 hours	0.810
195.01	12 hours	0.440	4.50 hours	1.33
196.01	12 hours	0.500	2 hours	1.46
197.01	12 hours	0.410	1.50 hour	1.43
198.01	12 hours	0.590	2 hours	1.73
199.01	12 hours	1.28	6 hours	2.52
199.02	12 hours	1.74	6 hours	3.55
200.01	12 hours	0.230	2 hours	0.830
201.01	12 hours	0.550	4.50 hours	1.65
202.01	12 hours	4.86	12 hours	6.53
203.01	12 hours	0.780	2 hours	2.22
204.01	12 hours	0.540	2 hours	1.73
205.01	12 hours	0.690	4.50 hours	2.11
206.01	12 hours	0.180	1.50 hour	0.850
207.01	12 hours	0.650	1.50 hour	2.60
208.01	12 hours	0.930	6 hours	2.07
208.02	12 hours	1.31	4.50 hours	2.87
208.03	12 hours	2.45	2 hours	5.05
208.04	12 hours	4.73	9 hours	7.94
208.05	12 hours	5.97	9 hours	9.28
208.06	18 hours	7.32	9 hours	10.5
209.01	12 hours	0.170	1.50 hour	0.800
210.01	12 hours	0.330	1.50 hour	1.08
211.01	12 hours	0.340	4.50 hours	1.03
211.02	12 hours	0.390	2 hours	1.25
211.03	12 hours	1.40	2 hours	3.40

2% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
212.01	12 hours	0.160	1.50 hour	0.940
_junc_10	12 hours	31.9	9 hours	45.5
_junc_108	12 hours	0.600	1.50 hour	1.72
_junc_11	12 hours	508	9 hours	752
_junc_111	12 hours	3.42	9 hours	6.48
_junc_114	12 hours	2.08	12 hours	2.92
_junc_12	12 hours	15.9	9 hours	25.8
_junc_13	12 hours	156	9 hours	230
_junc_138	12 hours	10.8	9 hours	18.8
_junc_14	12 hours	132	9 hours	195
_junc_142	12 hours	8.35	9 hours	15.2
_junc_143	12 hours	250	9 hours	370
_junc_15	12 hours	474	9 hours	702
_junc_16	12 hours	518	9 hours	765
_junc_165	12 hours	35.3	9 hours	58.4
_junc_168	12 hours	33.0	9 hours	55.4
_junc_17	12 hours	148	9 hours	217
_junc_174	12 hours	24.0	9 hours	38.8
_junc_18	18 hours	58.3	12 hours	81.4
_junc_181	12 hours	0.100	1.50 hour	0.520
_junc_185	12 hours	0.110	1.50 hour	0.500
_junc_186	12 hours	0.330	1.50 hour	1.32
_junc_187	12 hours	2.70	9 hours	4.48
_junc_19	12 hours	204	9 hours	306
_junc_193	12 hours	11.6	9 hours	19.7
_junc_194	12 hours	16.5	9 hours	28.1
_junc_199	12 hours	20.3	9 hours	34.3
_junc_2	12 hours	240	9 hours	358
_junc_20	12 hours	171	9 hours	253
_junc_204	12 hours	9.04	9 hours	14.3
_junc_21	12 hours	185	9 hours	278
_junc_22	12 hours	527	9 hours	778
_junc_228	12 hours	0.550	2 hours	2.07
_junc_23	12 hours	534	9 hours	787
_junc_231	12 hours	217	9 hours	323
_junc_232	12 hours	27.2	9 hours	47.2
_junc_233	12 hours	38.7	9 hours	64.9
_junc_234	12 hours	515	9 hours	826
_junc_24	12 hours	32.6	9 hours	50.2
_junc_25	12 hours	25.8	12 hours	37.6
_junc_26	12 hours	22.2	9 hours	33.9
_junc_263	12 hours	12.8	9 hours	21.4
_junc_265	12 hours	12.5	9 hours	21.3
_junc_27	12 hours	13.5	9 hours	21.2
_junc_28	12 hours	577	9 hours	845
_junc_29	12 hours	575	9 hours	842
_junc_3	12 hours	21.3	12 hours	29.4
_junc_30	12 hours	580	9 hours	850
_junc_31	12 hours	16.8	9 hours	30.4
_junc_32	12 hours	589	9 hours	862

2% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
_junc_324	12 hours	520	9 hours	836
_junc_328	12 hours	604	9 hours	964
_junc_329	12 hours	34.7	9 hours	50.2
_junc_33	12 hours	16.3	9 hours	30.0
_junc_330	12 hours	71.8	9 hours	109
_junc_331	12 hours	1262	9 hours	1923
_junc_34	12 hours	26.5	9 hours	46.6
_junc_35	12 hours	8.98	9 hours	15.6
_junc_36	12 hours	505	9 hours	811
_junc_37	12 hours	19.3	9 hours	30.1
_junc_38	12 hours	15.2	9 hours	27.0
_junc_39	12 hours	561	9 hours	898
_junc_4	12 hours	22.0	12 hours	31.3
_junc_40	12 hours	27.7	9 hours	43.7
_junc_41	12 hours	16.9	9 hours	27.4
_junc_42	12 hours	31.8	9 hours	50.5
_junc_43	12 hours	81.0	9 hours	132
_junc_44	12 hours	526	9 hours	846
_junc_45	12 hours	470	9 hours	753
_junc_46	12 hours	40.6	12 hours	62.6
_junc_47	12 hours	532	9 hours	854
_junc_48	12 hours	387	9 hours	619
_junc_49	12 hours	18.7	9 hours	30.7
_junc_5	12 hours	19.1	9 hours	30.9
_junc_50	12 hours	59.8	12 hours	92.1
_junc_51	12 hours	379	9 hours	605
_junc_52	12 hours	68.6	9 hours	107
_junc_53	12 hours	18.9	12 hours	28.8
_junc_54	12 hours	95.5	9 hours	153
_junc_55	12 hours	108	9 hours	173
_junc_56	12 hours	348	9 hours	559
_junc_57	12 hours	144	9 hours	228
_junc_58	12 hours	330	9 hours	529
_junc_59	12 hours	309	9 hours	496
_junc_6	12 hours	63.0	9 hours	96.8
_junc_60	12 hours	322	9 hours	517
_junc_61	12 hours	30.1	9 hours	47.6
_junc_62	12 hours	147	9 hours	243
_junc_63	12 hours	131	9 hours	218
_junc_64	12 hours	59.6	9 hours	103
_junc_65	12 hours	16.8	9 hours	30.5
_junc_66	12 hours	112	9 hours	184
_junc_67	12 hours	66.8	9 hours	114
_junc_68	12 hours	47.5	9 hours	83.6
_junc_69	12 hours	35.5	9 hours	62.4
_junc_7	12 hours	72.5	9 hours	112
_junc_70	12 hours	27.1	9 hours	47.6
_junc_71	12 hours	23.1	12 hours	35.1
_junc_72	12 hours	40.5	12 hours	62.2
_junc_73	12 hours	19.3	9 hours	33.2

2% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
_junc_74	12 hours	12.7	9 hours	21.3
_junc_75	18 hours	40.7	12 hours	55.3
_junc_76	12 hours	15.8	9 hours	23.5
_junc_77	12 hours	39.0	9 hours	61.2
_junc_78	12 hours	48.3	9 hours	76.2
_junc_79	12 hours	55.2	9 hours	88.0
_junc_8	12 hours	27.7	9 hours	45.3
_junc_80	12 hours	22.1	9 hours	36.2
_junc_81	12 hours	104	9 hours	152
_junc_82	12 hours	23.7	9 hours	36.7
_junc_83	12 hours	19.0	9 hours	27.2
_junc_84	12 hours	128	9 hours	188
_junc_85	12 hours	25.6	9 hours	37.1
_junc_86	12 hours	159	9 hours	235
_junc_87	12 hours	55.5	9 hours	83.2
_junc_88	12 hours	60.6	9 hours	92.0
_junc_89	12 hours	145	9 hours	215
_junc_9	12 hours	37.1	9 hours	59.2
_junc_90	12 hours	233	9 hours	345
_junc_91	12 hours	15.7	12 hours	21.5

1% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
1.01	12 hours	17.8	9 hours	31.2
1.02	12 hours	23.1	9 hours	41.9
1.03	12 hours	32.2	9 hours	59.2
1.04	12 hours	45.8	9 hours	83.8
1.05	12 hours	58.5	9 hours	107
1.06	12 hours	59.7	9 hours	109
1.07	12 hours	71.2	9 hours	128
1.08	12 hours	78.3	9 hours	140
1.09	12 hours	80.6	9 hours	144
1.10	12 hours	132	9 hours	227
1.11	12 hours	159	9 hours	276
1.12	12 hours	178	9 hours	303
1.13	12 hours	362	9 hours	606
1.14	12 hours	377	9 hours	629
1.15	12 hours	377	9 hours	630
1.16	12 hours	384	9 hours	641
1.17	12 hours	414	9 hours	690
1.18	12 hours	444	9 hours	739
1.19	12 hours	451	9 hours	750
1.20	12 hours	550	9 hours	916
1.21	12 hours	553	9 hours	921
1.22	12 hours	593	9 hours	990
1.23	12 hours	603	9 hours	1007
1.24	12 hours	603	9 hours	1007
1.25	12 hours	606	9 hours	1011
1.26	12 hours	612	9 hours	1022
1.27	12 hours	619	9 hours	1033
1.28	12 hours	620	9 hours	1034
1.29	12 hours	654	9 hours	1087
1.30	12 hours	656	9 hours	1090
1.31	12 hours	708	9 hours	1170
1.32	12 hours	708	9 hours	1170
1.33	12 hours	1395	9 hours	2205
1.34	12 hours	1396	9 hours	2207
1.35	12 hours	1473	9 hours	2320
1.36	12 hours	1475	9 hours	2321
1.37	12 hours	1475	9 hours	2322
1.38	12 hours	1477	9 hours	2323
1.39	12 hours	1484	9 hours	2333
1.40	12 hours	1496	9 hours	2347
2.01	12 hours	4.50	9 hours	8.94
3.01	12 hours	8.13	9 hours	15.2
4.01	12 hours	8.67	9 hours	15.5
5.01	12 hours	8.93	9 hours	16.5
6.01	12 hours	9.20	9 hours	14.7
7.01	12 hours	5.91	9 hours	9.57
8.01	12 hours	16.8	12 hours	26.1
8.02	12 hours	32.7	12 hours	51.5
8.03	12 hours	32.8	12 hours	51.5
8.04	12 hours	47.6	9 hours	76.3

1% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
8.05	12 hours	49.0	9 hours	78.8
9.01	12 hours	10.3	9 hours	17.1
10.01	12 hours	6.07	9 hours	10.7
10.02	12 hours	14.7	9 hours	25.7
11.01	12 hours	8.55	9 hours	14.9
12.01	12 hours	7.09	9 hours	13.4
12.02	12 hours	12.3	9 hours	23.5
12.03	12 hours	19.7	9 hours	37.2
13.01	12 hours	2.34	6 hours	5.06
14.01	12 hours	5.84	9 hours	10.6
14.02	12 hours	7.05	9 hours	13.0
15.01	12 hours	0.980	6 hours	2.49
16.01	12 hours	7.68	12 hours	12.0
16.02	12 hours	11.5	12 hours	18.1
17.01	12 hours	11.7	12 hours	18.6
17.02	12 hours	26.9	9 hours	44.1
17.03	12 hours	34.5	9 hours	57.3
17.04	12 hours	49.2	9 hours	79.3
17.05	12 hours	57.9	9 hours	93.7
17.06	12 hours	72.3	9 hours	116
17.07	12 hours	82.6	9 hours	135
17.08	12 hours	113	9 hours	190
17.09	12 hours	116	9 hours	195
17.10	12 hours	125	9 hours	209
17.11	12 hours	176	9 hours	289
17.12	12 hours	179	9 hours	295
17.13	12 hours	181	9 hours	297
18.01	12 hours	10.8	9 hours	18.0
19.01	12 hours	5.27	9 hours	8.92
20.01	12 hours	13.0	12 hours	20.1
21.01	12 hours	10.7	12 hours	16.6
21.02	12 hours	11.9	12 hours	18.5
22.01	12 hours	7.83	9 hours	14.7
23.01	12 hours	6.46	9 hours	11.3
23.02	12 hours	20.7	9 hours	35.8
23.03	12 hours	28.1	9 hours	49.8
23.04	12 hours	28.5	9 hours	50.5
24.01	12 hours	8.32	9 hours	14.5
25.01	12 hours	2.85	9 hours	6.05
26.01	12 hours	9.02	12 hours	14.2
26.02	12 hours	9.14	12 hours	14.4
27.01	12 hours	11.5	9 hours	19.5
27.02	12 hours	25.0	9 hours	41.7
27.03	12 hours	42.7	9 hours	67.5
28.01	12 hours	2.32	6 hours	5.09
28.02	12 hours	3.15	6 hours	6.86
29.01	12 hours	9.94	9 hours	16.0
30.01	12 hours	2.89	9 hours	5.36
31.01	12 hours	2.11	9 hours	3.78
32.01	12 hours	12.2	12 hours	19.2

1% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
33.01	12 hours	5.85	9 hours	9.58
34.01	12 hours	8.58	9 hours	14.4
34.02	12 hours	20.9	9 hours	38.3
34.03	12 hours	21.2	9 hours	38.7
35.01	12 hours	5.95	9 hours	9.77
35.02	12 hours	12.6	12 hours	19.7
35.03	12 hours	16.9	12 hours	26.5
35.04	12 hours	17.1	12 hours	26.9
35.05	12 hours	26.9	12 hours	42.2
36.01	12 hours	0.720	9 hours	1.52
37.01	12 hours	5.02	9 hours	8.10
38.01	12 hours	5.17	12 hours	7.97
38.02	12 hours	6.31	9 hours	9.95
39.01	12 hours	6.92	9 hours	11.6
39.02	12 hours	14.3	9 hours	26.2
39.03	12 hours	20.9	9 hours	39.6
39.04	12 hours	41.8	9 hours	72.3
39.05	12 hours	53.0	9 hours	90.8
39.06	12 hours	97.5	9 hours	165
40.01	12 hours	3.69	6 hours	7.92
41.01	12 hours	4.68	6 hours	10.1
42.01	12 hours	9.86	9 hours	16.6
43.01	12 hours	3.10	9 hours	5.83
44.01	12 hours	10.7	9 hours	18.9
44.02	12 hours	26.9	9 hours	46.2
44.03	12 hours	41.2	9 hours	68.0
45.01	12 hours	7.01	9 hours	13.5
46.01	12 hours	10.2	12 hours	15.7
47.01	12 hours	9.02	9 hours	16.1
47.02	12 hours	12.6	9 hours	22.7
47.03	12 hours	13.7	9 hours	25.2
47.04	12 hours	28.2	9 hours	50.4
47.05	12 hours	36.4	9 hours	65.8
48.01	12 hours	3.41	9 hours	6.38
49.01	12 hours	4.98	9 hours	9.45
49.02	12 hours	5.68	9 hours	11.1
49.03	12 hours	5.75	9 hours	11.2
50.01	12 hours	0.940	4.50 hours	2.42
51.01	12 hours	3.28	9 hours	6.28
52.01	12 hours	1.48	6 hours	3.11
52.02	12 hours	3.60	9 hours	6.91
53.01	12 hours	5.30	9 hours	8.95
54.01	12 hours	2.03	9 hours	3.66
54.02	12 hours	2.97	9 hours	5.65
54.03	12 hours	3.36	9 hours	6.47
55.01	12 hours	2.46	9 hours	4.80
56.01	12 hours	3.39	9 hours	6.79
56.02	12 hours	5.68	9 hours	10.6
56.03	12 hours	6.69	9 hours	12.3
57.01	12 hours	2.93	9 hours	5.82

1% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
57.02	12 hours	7.22	9 hours	10.8
58.01	12 hours	5.49	9 hours	8.75
58.02	12 hours	8.01	9 hours	12.8
58.03	12 hours	11.6	9 hours	18.7
58.04	12 hours	19.4	9 hours	32.6
58.05	12 hours	21.0	9 hours	34.6
58.06	12 hours	30.5	9 hours	49.6
58.07	12 hours	34.8	9 hours	56.2
59.01	12 hours	2.44	9 hours	4.26
60.01	12 hours	2.26	9 hours	4.59
60.02	12 hours	2.91	9 hours	5.77
60.03	12 hours	6.35	9 hours	11.2
61.01	12 hours	1.86	9 hours	3.18
62.01	12 hours	0.430	9 hours	0.860
63.01	12 hours	0.040	2 hours	0.160
64.01	12 hours	1.25	9 hours	2.41
64.02	12 hours	7.04	9 hours	12.6
65.01	12 hours	0.720	9 hours	1.40
66.01	12 hours	0.890	6 hours	2.05
66.02	12 hours	3.28	9 hours	5.77
67.01	12 hours	0.170	1.50 hour	0.830
68.01	12 hours	0.270	2 hours	1.21
69.01	12 hours	0.270	1.50 hour	1.35
69.02	12 hours	0.470	2 hours	1.91
70.01	12 hours	0.200	2 hours	0.870
71.01	12 hours	0.230	1.50 hour	1.08
72.01	12 hours	0.260	2 hours	1.19
73.01	12 hours	0.190	2 hours	0.880
74.01	12 hours	1.72	9 hours	3.08
75.01	36 hours	1.86	36 hours	1.68
75.02	36 hours	2.19	36 hours	2.02
76.01	12 hours	1.21	9 hours	2.25
76.02	12 hours	1.32	9 hours	2.38
77.01	12 hours	2.92	9 hours	5.24
77.02	12 hours	6.44	9 hours	11.7
77.03	12 hours	12.4	9 hours	20.6
77.04	12 hours	13.9	9 hours	23.3
77.05	12 hours	14.8	9 hours	24.9
77.06	12 hours	15.0	9 hours	25.3
77.07	12 hours	29.3	9 hours	51.4
77.08	12 hours	30.0	9 hours	52.2
77.09	12 hours	30.2	9 hours	52.5
77.10	12 hours	30.8	9 hours	53.4
77.11	12 hours	35.2	9 hours	60.9
77.12	12 hours	39.3	9 hours	66.9
77.13	12 hours	47.9	9 hours	78.6
78.01	12 hours	2.75	9 hours	4.68
78.02	12 hours	6.71	9 hours	11.3
79.01	12 hours	1.84	9 hours	3.52
80.01	12 hours	0.810	6 hours	1.71

1% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
81.01	12 hours	1.84	9 hours	3.34
81.02	12 hours	2.04	9 hours	3.76
81.03	12 hours	4.07	9 hours	7.90
81.04	12 hours	7.47	9 hours	15.0
82.01	12 hours	0.390	4.50 hours	1.17
82.02	12 hours	1.67	9 hours	3.34
82.03	12 hours	1.91	9 hours	3.86
83.01	12 hours	1.21	6 hours	2.57
83.02	12 hours	2.39	4.50 hours	5.49
83.03	12 hours	2.65	2 hours	6.08
84.01	12 hours	0.230	1.50 hour	0.820
84.02	12 hours	0.840	2 hours	2.60
85.01	12 hours	0.460	4.50 hours	1.30
86.01	12 hours	0.070	1.50 hour	0.380
87.01	12 hours	0.340	1.50 hour	1.27
87.02	12 hours	0.640	2 hours	2.15
88.01	12 hours	0.140	2 hours	0.490
89.01	12 hours	0.200	1.50 hour	0.490
90.01	12 hours	0.130	1.50 hour	0.440
91.01	12 hours	0.390	2 hours	1.41
92.01	12 hours	0.670	9 hours	1.16
92.02	12 hours	2.71	9 hours	4.37
92.03	12 hours	2.87	9 hours	4.73
92.04	12 hours	4.22	9 hours	7.60
93.01	12 hours	0.200	2 hours	0.500
94.01	12 hours	0.230	1.50 hour	0.910
95.01	12 hours	0.290	1.50 hour	1.15
96.01	12 hours	0.120	1.50 hour	0.580
97.01	12 hours	0.140	1.50 hour	0.640
98.01	12 hours	0.400	6 hours	0.940
99.01	12 hours	2.41	9 hours	3.53
99.02	12 hours	3.20	9 hours	4.95
100.01	12 hours	0.070	2 hours	0.260
101.01	12 hours	0.050	1.50 hour	0.270
102.01	12 hours	0.090	1.50 hour	0.370
103.01	12 hours	0.060	1.50 hour	0.340
104.01	12 hours	0.180	1.50 hour	0.690
104.02	12 hours	0.470	2 hours	1.69
105.01	12 hours	0.040	1.50 hour	0.260
106.01	18 hours	5.14	12 hours	6.15
106.02	18 hours	7.30	12 hours	9.58
107.01	12 hours	2.33	9 hours	3.92
108.01	12 hours	1.61	12 hours	2.29
108.02	12 hours	1.65	12 hours	2.34
109.01	12 hours	3.21	9 hours	5.50
110.01	12 hours	1.88	9 hours	3.44
111.01	12 hours	0.850	2 hours	2.36
112.01	12 hours	0.660	2 hours	1.88
113.01	12 hours	0.320	2 hours	1.01
114.01	12 hours	10.6	9 hours	17.3

1% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
114.02	12 hours	16.1	9 hours	26.5
114.03	12 hours	31.3	9 hours	49.3
114.04	18 hours	51.6	12 hours	76.8
114.05	18 hours	68.9	12 hours	99.2
114.06	12 hours	160	9 hours	243
114.07	12 hours	173	9 hours	264
114.08	12 hours	188	9 hours	287
114.09	12 hours	193	9 hours	294
114.10	12 hours	203	9 hours	312
114.11	12 hours	217	9 hours	337
114.12	12 hours	220	9 hours	342
114.13	12 hours	249	9 hours	383
114.14	12 hours	260	9 hours	399
114.15	12 hours	261	9 hours	401
114.16	12 hours	558	9 hours	856
114.17	12 hours	595	9 hours	911
114.18	12 hours	606	9 hours	926
114.19	12 hours	610	9 hours	932
114.20	12 hours	617	9 hours	942
114.21	12 hours	666	9 hours	1009
114.22	12 hours	673	9 hours	1019
114.23	12 hours	675	9 hours	1022
114.24	12 hours	681	9 hours	1031
114.25	12 hours	692	9 hours	1047
115.01	12 hours	4.99	9 hours	8.31
116.01	12 hours	9.51	9 hours	14.5
117.01	12 hours	6.51	9 hours	11.5
118.01	18 hours	17.4	12 hours	22.2
119.01	12 hours	18.6	12 hours	27.1
119.02	12 hours	28.6	9 hours	42.7
119.03	12 hours	76.5	9 hours	122
119.04	12 hours	88.6	9 hours	142
120.01	12 hours	7.17	9 hours	11.7
121.01	12 hours	9.91	9 hours	17.1
121.02	12 hours	25.7	9 hours	43.6
121.03	12 hours	33.4	9 hours	57.2
121.04	12 hours	44.5	9 hours	74.4
122.01	12 hours	12.0	9 hours	20.0
123.01	12 hours	6.14	9 hours	10.7
124.01	12 hours	9.28	9 hours	14.2
125.01	12 hours	7.55	9 hours	12.8
126.01	12 hours	13.1	12 hours	20.2
127.01	12 hours	9.18	9 hours	15.1
128.01	12 hours	7.52	9 hours	12.9
129.01	12 hours	6.01	9 hours	11.0
129.02	12 hours	11.3	9 hours	21.9
129.03	12 hours	14.5	9 hours	28.1
130.01	12 hours	3.64	9 hours	7.26
131.01	12 hours	2.77	6 hours	5.59
131.02	12 hours	12.3	9 hours	18.6

1% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
131.03	12 hours	18.9	9 hours	28.8
132.01	12 hours	4.77	9 hours	9.09
133.01	12 hours	14.5	9 hours	24.5
133.02	12 hours	31.1	9 hours	53.4
133.03	12 hours	50.9	9 hours	82.7
133.04	12 hours	57.5	9 hours	95.0
133.05	12 hours	72.4	9 hours	119
133.06	12 hours	72.7	9 hours	120
133.07	12 hours	131	9 hours	198
133.08	12 hours	132	9 hours	200
133.09	12 hours	159	9 hours	242
133.10	12 hours	174	9 hours	268
133.11	12 hours	198	9 hours	301
133.12	12 hours	273	9 hours	421
133.13	12 hours	288	9 hours	442
133.14	12 hours	293	9 hours	450
134.01	12 hours	10.8	9 hours	18.9
135.01	12 hours	14.1	12 hours	20.8
136.01	12 hours	5.01	9 hours	9.23
137.01	12 hours	6.16	9 hours	10.8
138.01	18 hours	23.5	12 hours	31.6
138.02	18 hours	29.1	12 hours	39.6
138.03	18 hours	49.7	12 hours	70.5
139.01	12 hours	9.81	9 hours	15.2
139.02	12 hours	19.1	12 hours	28.2
140.01	12 hours	1.00	4.50 hours	2.79
141.01	12 hours	14.2	9 hours	23.8
141.02	12 hours	16.9	9 hours	28.6
142.01	12 hours	1.78	6 hours	3.66
143.01	12 hours	11.1	9 hours	19.5
144.01	12 hours	10.6	9 hours	17.8
145.01	12 hours	7.72	9 hours	13.3
145.02	12 hours	21.7	9 hours	34.0
145.03	12 hours	33.6	9 hours	53.5
145.04	12 hours	64.7	9 hours	101
145.05	12 hours	64.9	9 hours	101
145.06	12 hours	74.4	9 hours	119
146.01	12 hours	10.7	12 hours	15.7
147.01	12 hours	5.85	9 hours	10.5
148.01	12 hours	15.5	12 hours	22.5
148.02	12 hours	23.3	9 hours	34.8
148.03	12 hours	30.7	9 hours	46.9
149.01	12 hours	6.69	9 hours	11.2
150.01	12 hours	6.37	9 hours	9.99
151.01	12 hours	5.42	9 hours	9.94
152.01	12 hours	2.21	9 hours	4.60
153.01	12 hours	7.27	9 hours	12.8
154.01	12 hours	2.93	9 hours	5.72
154.02	12 hours	3.85	9 hours	7.72
155.01	12 hours	11.7	12 hours	16.0

1% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
155.02	12 hours	11.8	12 hours	16.2
155.03	12 hours	19.5	12 hours	27.2
155.04	12 hours	20.3	12 hours	28.3
155.05	12 hours	32.1	9 hours	46.2
155.06	12 hours	37.8	9 hours	55.3
156.01	12 hours	6.48	9 hours	9.82
156.02	12 hours	6.75	9 hours	10.2
157.01	12 hours	4.79	9 hours	7.31
158.01	12 hours	2.48	9 hours	4.13
159.01	12 hours	2.38	9 hours	4.18
160.01	12 hours	4.99	9 hours	7.86
160.02	12 hours	5.34	9 hours	8.51
161.01	12 hours	10.0	12 hours	14.2
162.01	12 hours	0.820	2 hours	2.22
162.02	12 hours	6.11	9 hours	8.82
162.03	12 hours	6.22	9 hours	9.03
163.01	12 hours	1.21	6 hours	2.78
163.02	12 hours	3.66	9 hours	7.32
163.03	12 hours	11.4	9 hours	18.8
163.04	12 hours	17.4	9 hours	27.2
163.05	12 hours	38.1	12 hours	55.8
163.06	12 hours	39.6	12 hours	57.9
164.01	18 hours	13.7	12 hours	19.3
165.01	12 hours	6.60	12 hours	9.12
165.02	12 hours	7.61	12 hours	10.5
166.01	12 hours	1.92	9 hours	3.44
166.02	12 hours	4.06	9 hours	6.85
166.03	12 hours	7.09	9 hours	11.1
167.01	12 hours	1.47	6 hours	2.89
167.02	12 hours	2.79	6 hours	5.41
168.01	12 hours	4.06	9 hours	6.89
168.02	12 hours	4.09	9 hours	6.93
169.01	12 hours	7.48	9 hours	11.6
169.02	12 hours	8.47	9 hours	13.5
170.01	12 hours	1.21	6 hours	2.63
171.01	12 hours	1.38	9 hours	2.55
172.01	12 hours	0.870	6 hours	1.93
173.01	12 hours	1.68	6 hours	3.42
173.02	12 hours	13.2	9 hours	21.5
173.03	12 hours	25.9	9 hours	41.6
173.04	12 hours	28.3	9 hours	44.6
173.05	12 hours	36.2	9 hours	55.2
173.06	12 hours	46.9	9 hours	68.9
173.07	12 hours	84.1	9 hours	130
174.01	12 hours	1.32	6 hours	3.04
175.01	12 hours	1.06	6 hours	2.11
176.01	12 hours	0.950	6 hours	2.22
176.02	12 hours	5.24	9 hours	9.32
177.01	18 hours	4.42	12 hours	4.83
178.01	12 hours	3.01	9 hours	4.51

1% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
179.01	12 hours	0.530	9 hours	0.940
180.01	18 hours	4.47	12 hours	5.54
180.02	18 hours	4.93	12 hours	6.12
181.01	12 hours	3.10	9 hours	4.72
182.01	12 hours	0.430	2 hours	1.13
183.01	12 hours	4.34	9 hours	8.37
183.02	12 hours	8.34	9 hours	14.9
183.03	12 hours	14.9	9 hours	25.9
183.04	12 hours	23.7	9 hours	39.6
183.05	12 hours	24.7	9 hours	41.3
183.06	12 hours	37.1	9 hours	62.3
184.01	12 hours	0.790	6 hours	1.85
184.02	12 hours	5.13	9 hours	8.50
185.01	12 hours	0.980	2 hours	2.63
185.02	12 hours	4.24	9 hours	7.66
186.01	12 hours	1.92	9 hours	3.58
187.01	12 hours	2.40	9 hours	4.13
187.02	12 hours	4.56	9 hours	7.68
188.01	12 hours	0.740	6 hours	1.71
189.01	12 hours	0.770	2 hours	1.90
190.01	12 hours	0.530	4.50 hours	1.53
191.01	12 hours	1.46	9 hours	2.73
192.01	12 hours	1.69	2 hours	4.66
193.01	12 hours	1.44	4.50 hours	4.26
194.01	12 hours	0.250	2 hours	0.970
195.01	12 hours	0.510	4.50 hours	1.58
196.01	12 hours	0.570	4.50 hours	1.73
197.01	12 hours	0.470	1.50 hour	1.69
198.01	12 hours	0.670	4.50 hours	2.05
199.01	12 hours	1.47	6 hours	3.03
199.02	12 hours	2.00	6 hours	4.27
200.01	12 hours	0.260	2 hours	0.990
201.01	12 hours	0.630	4.50 hours	1.95
202.01	12 hours	5.75	12 hours	7.93
203.01	12 hours	0.890	2 hours	2.62
204.01	12 hours	0.620	2 hours	2.07
205.01	12 hours	0.790	4.50 hours	2.49
206.01	12 hours	0.210	1.50 hour	1.00
207.01	12 hours	0.740	1.50 hour	3.05
208.01	12 hours	1.07	6 hours	2.47
208.02	12 hours	1.49	4.50 hours	3.45
208.03	12 hours	2.81	2 hours	5.89
208.04	12 hours	5.52	9 hours	9.40
208.05	12 hours	6.98	9 hours	11.1
208.06	18 hours	8.69	9 hours	12.6
209.01	12 hours	0.200	1.50 hour	0.940
210.01	12 hours	0.370	1.50 hour	1.26
211.01	12 hours	0.390	2 hours	1.23
211.02	12 hours	0.450	2 hours	1.50
211.03	12 hours	1.60	2 hours	3.99

1% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
212.01	12 hours	0.190	1.50 hour	1.09
_junc_10	12 hours	37.3	9 hours	54.6
_junc_108	12 hours	0.680	2 hours	2.03
_junc_11	12 hours	594	9 hours	909
_junc_111	12 hours	3.94	9 hours	7.62
_junc_114	12 hours	2.41	9 hours	3.53
_junc_12	12 hours	18.4	9 hours	30.7
_junc_13	12 hours	182	9 hours	278
_junc_138	12 hours	12.4	9 hours	22.5
_junc_14	12 hours	155	9 hours	236
_junc_142	12 hours	9.64	9 hours	18.1
_junc_143	12 hours	291	9 hours	448
_junc_15	12 hours	554	9 hours	850
_junc_16	12 hours	605	9 hours	925
_junc_165	12 hours	40.9	9 hours	69.2
_junc_168	12 hours	38.2	9 hours	65.6
_junc_17	12 hours	173	9 hours	263
_junc_174	12 hours	27.7	9 hours	46.3
_junc_18	18 hours	68.7	12 hours	98.9
_junc_181	12 hours	0.110	1.50 hour	0.610
_junc_185	12 hours	0.120	1.50 hour	0.580
_junc_186	12 hours	0.370	1.50 hour	1.55
_junc_187	12 hours	3.13	9 hours	5.34
_junc_19	12 hours	238	9 hours	370
_junc_193	12 hours	13.4	9 hours	23.4
_junc_194	12 hours	19.1	9 hours	33.4
_junc_199	12 hours	23.4	9 hours	41.3
_junc_2	12 hours	280	9 hours	433
_junc_20	12 hours	200	9 hours	306
_junc_204	12 hours	10.4	9 hours	17.0
_junc_21	12 hours	216	9 hours	336
_junc_22	12 hours	616	9 hours	941
_junc_228	12 hours	0.630	2 hours	2.43
_junc_23	12 hours	624	9 hours	952
_junc_231	12 hours	253	9 hours	391
_junc_232	12 hours	31.4	9 hours	56.7
_junc_233	12 hours	44.8	9 hours	78.1
_junc_234	12 hours	598	9 hours	998
_junc_24	12 hours	37.8	9 hours	60.6
_junc_25	12 hours	30.4	12 hours	45.5
_junc_26	12 hours	25.6	9 hours	41.0
_junc_263	12 hours	14.8	9 hours	25.8
_junc_265	12 hours	14.4	9 hours	25.7
_junc_27	12 hours	15.6	9 hours	25.5
_junc_28	12 hours	675	9 hours	1022
_junc_29	12 hours	673	9 hours	1019
_junc_3	12 hours	25.0	9 hours	35.3
_junc_30	12 hours	679	9 hours	1028
_junc_31	12 hours	19.4	9 hours	36.4
_junc_32	12 hours	689	9 hours	1043

1% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
_junc_324	12 hours	605	9 hours	1011
_junc_328	12 hours	703	9 hours	1162
_junc_329	12 hours	40.7	9 hours	60.4
_junc_33	12 hours	18.9	9 hours	35.9
_junc_330	12 hours	83.7	9 hours	130
_junc_331	12 hours	1472	9 hours	2319
_junc_34	12 hours	30.6	9 hours	55.9
_junc_35	12 hours	10.4	9 hours	18.7
_junc_36	12 hours	588	9 hours	980
_junc_37	12 hours	22.4	9 hours	36.5
_junc_38	12 hours	17.6	9 hours	32.2
_junc_39	12 hours	652	9 hours	1084
_junc_4	12 hours	25.7	12 hours	37.6
_junc_40	12 hours	32.1	9 hours	53.0
_junc_41	12 hours	19.5	9 hours	32.6
_junc_42	12 hours	36.9	9 hours	60.9
_junc_43	12 hours	94.0	9 hours	159
_junc_44	12 hours	612	9 hours	1022
_junc_45	12 hours	547	9 hours	910
_junc_46	12 hours	47.3	9 hours	75.8
_junc_47	12 hours	619	9 hours	1032
_junc_48	12 hours	451	9 hours	748
_junc_49	12 hours	21.7	9 hours	36.5
_junc_5	12 hours	21.9	9 hours	37.1
_junc_50	12 hours	69.8	9 hours	111
_junc_51	12 hours	441	9 hours	732
_junc_52	12 hours	79.8	9 hours	130
_junc_53	12 hours	22.1	12 hours	34.7
_junc_54	12 hours	111	9 hours	185
_junc_55	12 hours	125	9 hours	209
_junc_56	12 hours	404	9 hours	676
_junc_57	12 hours	168	9 hours	277
_junc_58	12 hours	383	9 hours	639
_junc_59	12 hours	359	9 hours	600
_junc_6	12 hours	72.9	9 hours	116
_junc_60	12 hours	374	9 hours	625
_junc_61	12 hours	34.9	9 hours	57.7
_junc_62	12 hours	170	9 hours	293
_junc_63	12 hours	151	9 hours	263
_junc_64	12 hours	68.8	9 hours	124
_junc_65	12 hours	19.3	9 hours	36.4
_junc_66	12 hours	129	9 hours	222
_junc_67	12 hours	77.1	9 hours	138
_junc_68	12 hours	54.7	9 hours	100
_junc_69	12 hours	40.9	9 hours	74.7
_junc_7	12 hours	83.9	9 hours	135
_junc_70	12 hours	31.2	9 hours	57.1
_junc_71	12 hours	27.0	12 hours	42.4
_junc_72	12 hours	47.1	9 hours	75.5
_junc_73	12 hours	22.2	9 hours	39.9

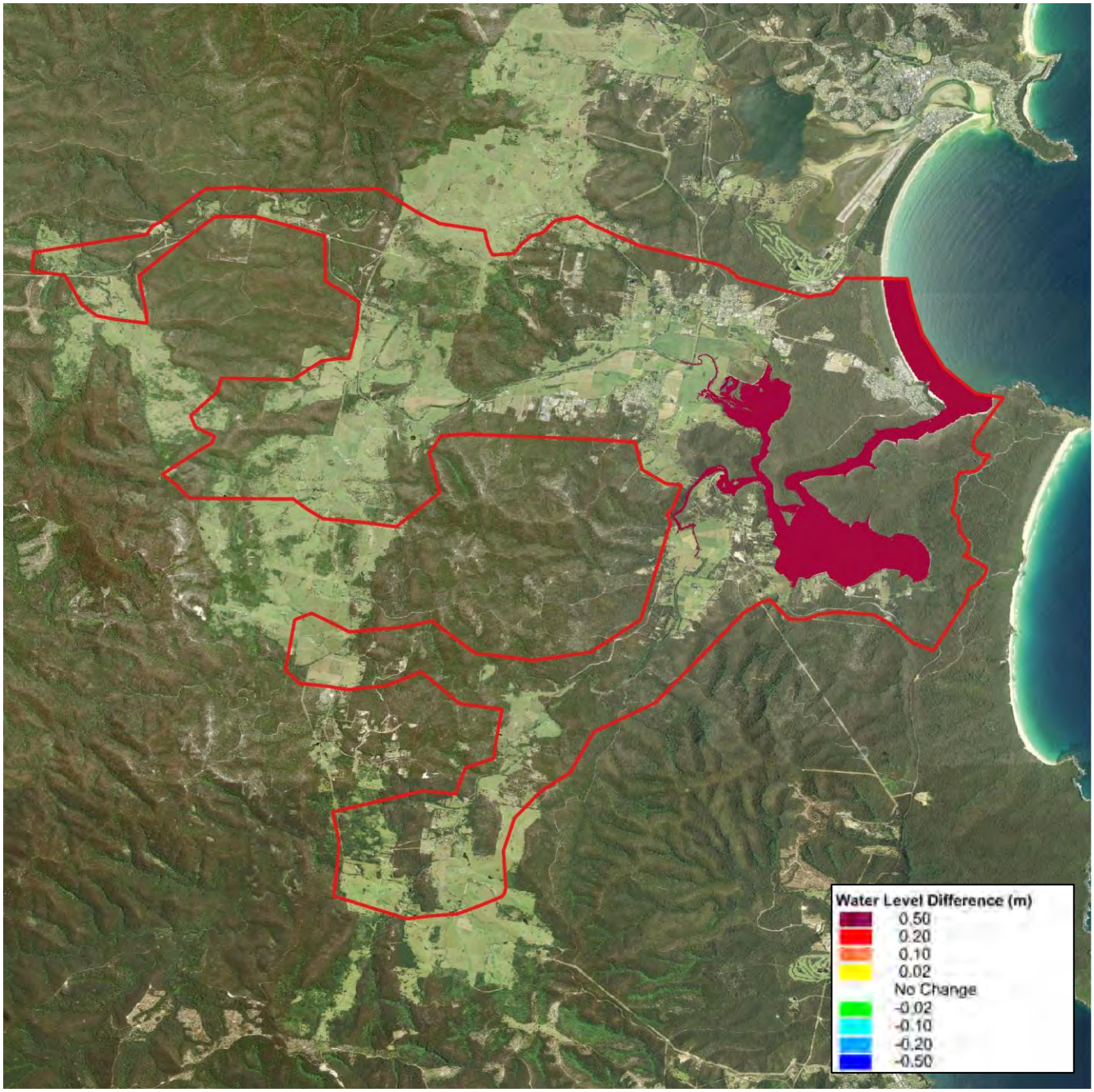
1% AEP Storm

Subcatchment	ARR2019 Critical Duration	ARR2019 Adopted Discharge (m^3/s)	ARR1987 Critical Duration	ARR1987 Discharge (m^3/s)
_junc_74	12 hours	14.6	9 hours	25.6
_junc_75	18 hours	47.6	12 hours	67.4
_junc_76	12 hours	18.3	9 hours	28.3
_junc_77	12 hours	45.0	9 hours	73.6
_junc_78	12 hours	55.7	9 hours	91.7
_junc_79	12 hours	63.6	9 hours	106
_junc_8	12 hours	31.8	9 hours	54.3
_junc_80	12 hours	25.3	9 hours	43.3
_junc_81	12 hours	121	9 hours	184
_junc_82	12 hours	27.4	9 hours	44.1
_junc_83	12 hours	22.1	9 hours	32.9
_junc_84	12 hours	149	9 hours	227
_junc_85	12 hours	29.6	9 hours	44.8
_junc_86	12 hours	185	9 hours	285
_junc_87	12 hours	64.3	9 hours	100
_junc_88	12 hours	70.2	9 hours	111
_junc_89	12 hours	169	9 hours	260
_junc_9	12 hours	42.6	9 hours	71.1
_junc_90	12 hours	271	9 hours	417
_junc_91	12 hours	18.5	12 hours	25.8

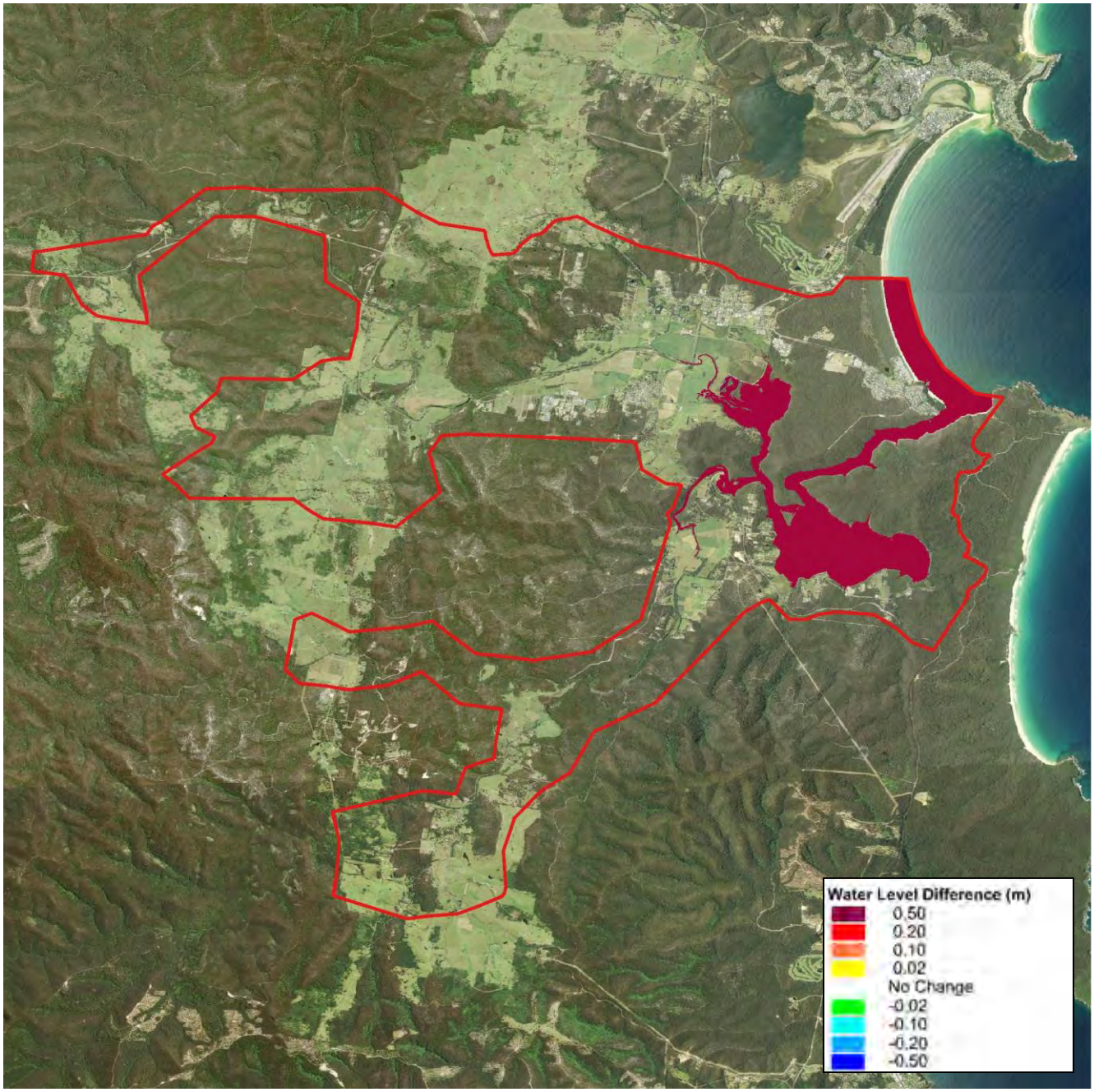
APPENDIX M
CLIMATE CHANGE DIFFERENCE MAPS

Sea Level Increase Scenarios

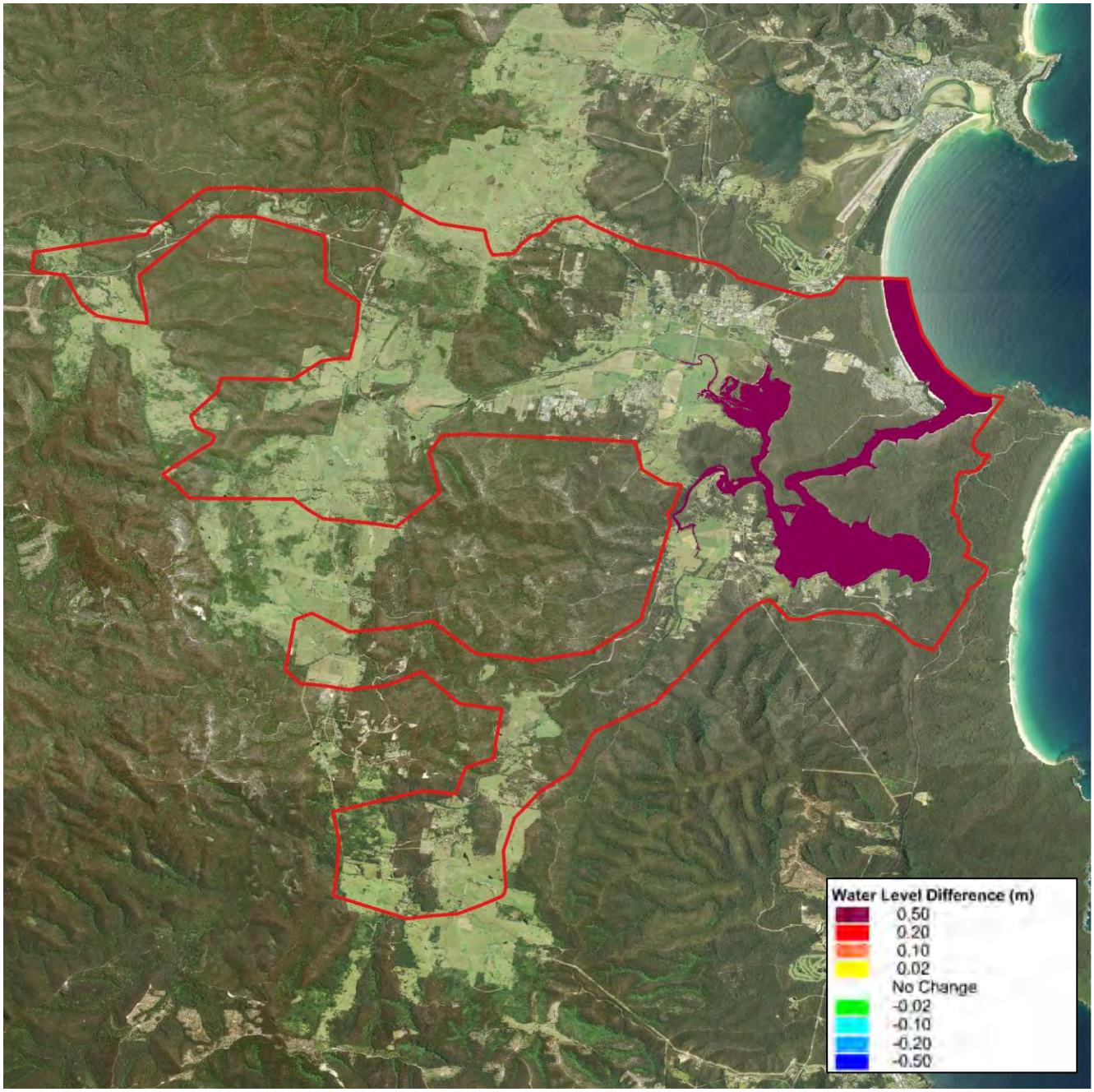
HHWS Tide with 0.4m Sea Level Rise



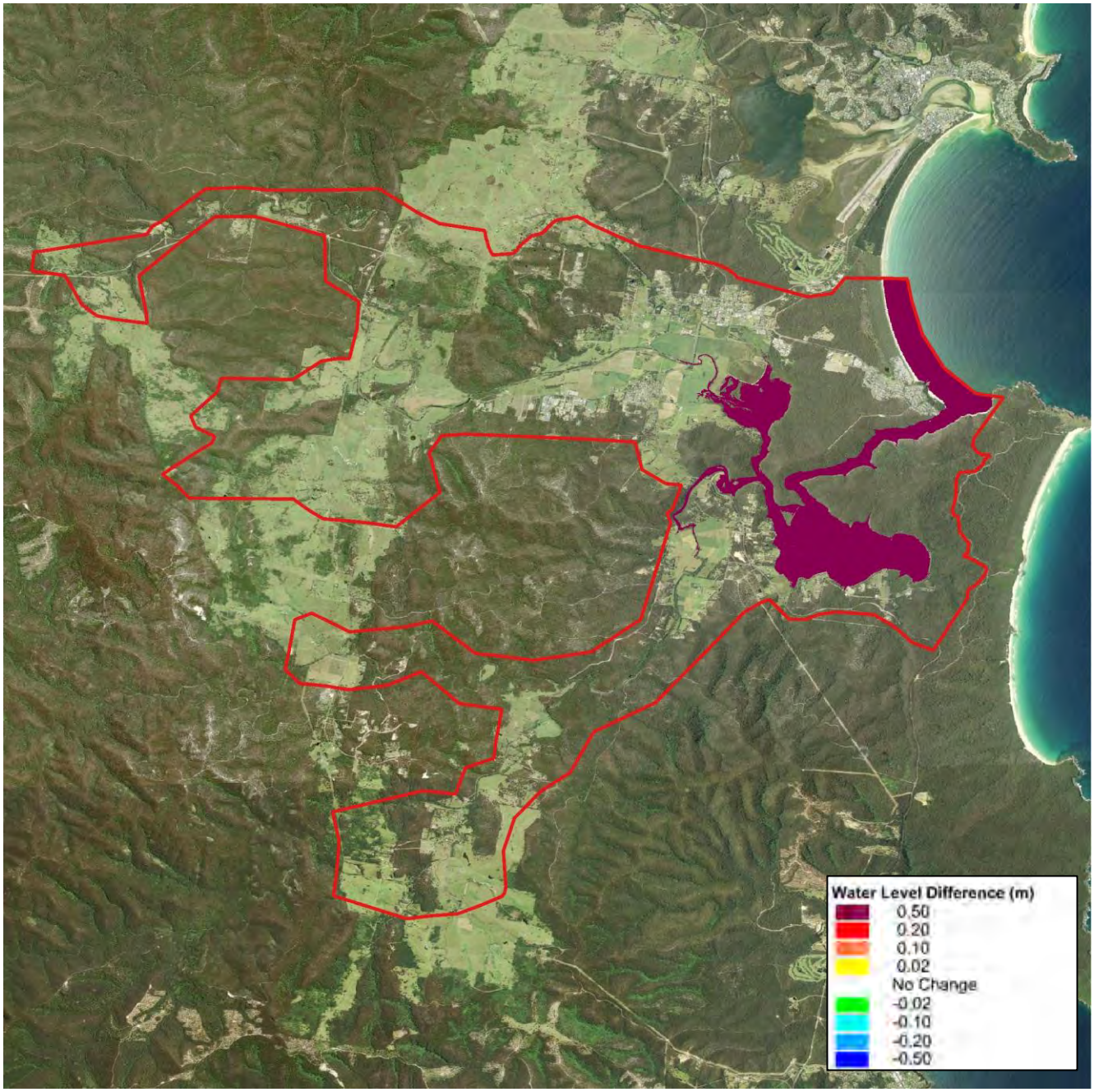
HHWS Tide with 0.4m Sea Level Rise and 0.4m Increase in River Entrance Elevation



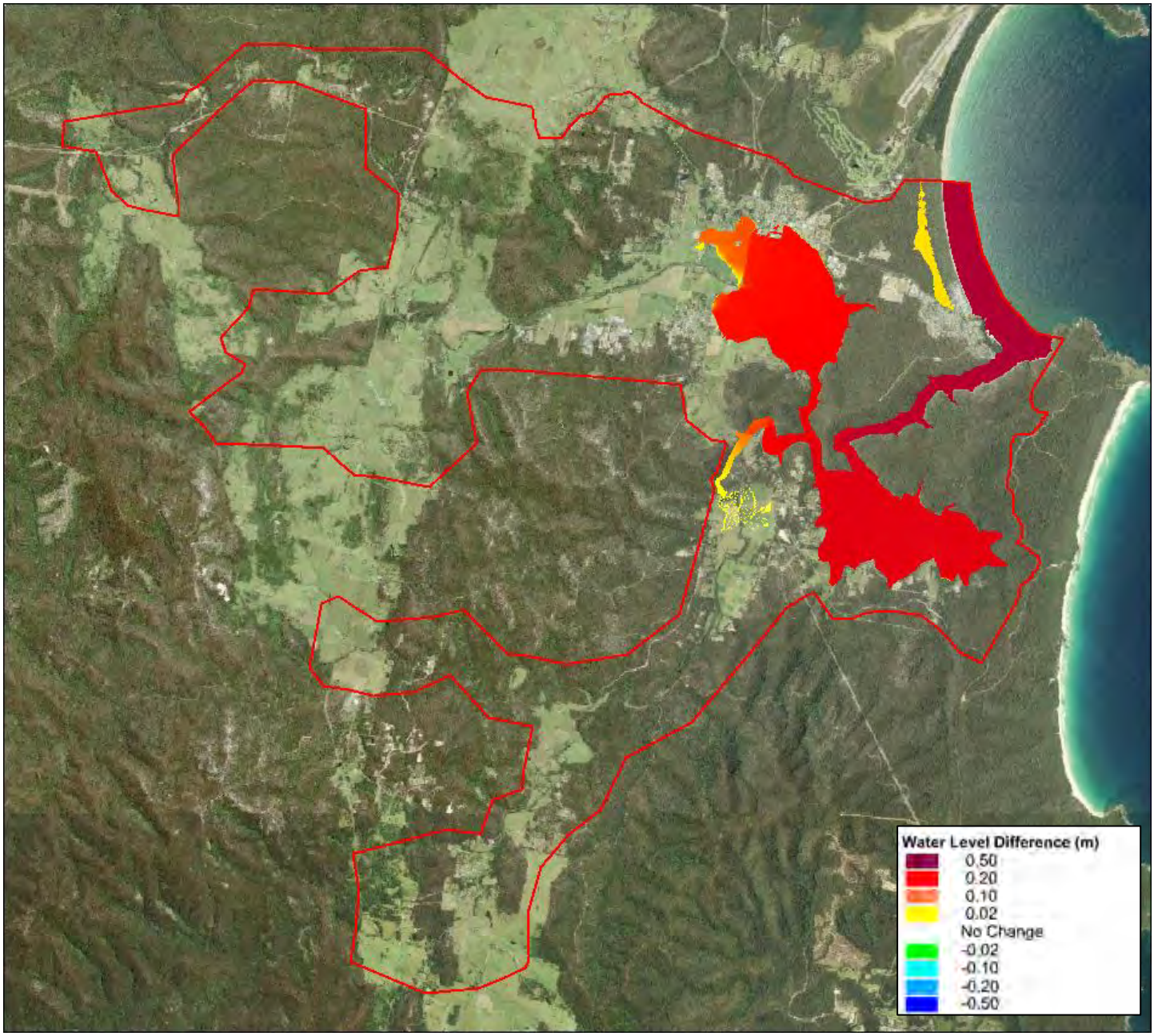
HHWS Tide with 0.9m Sea Level Rise



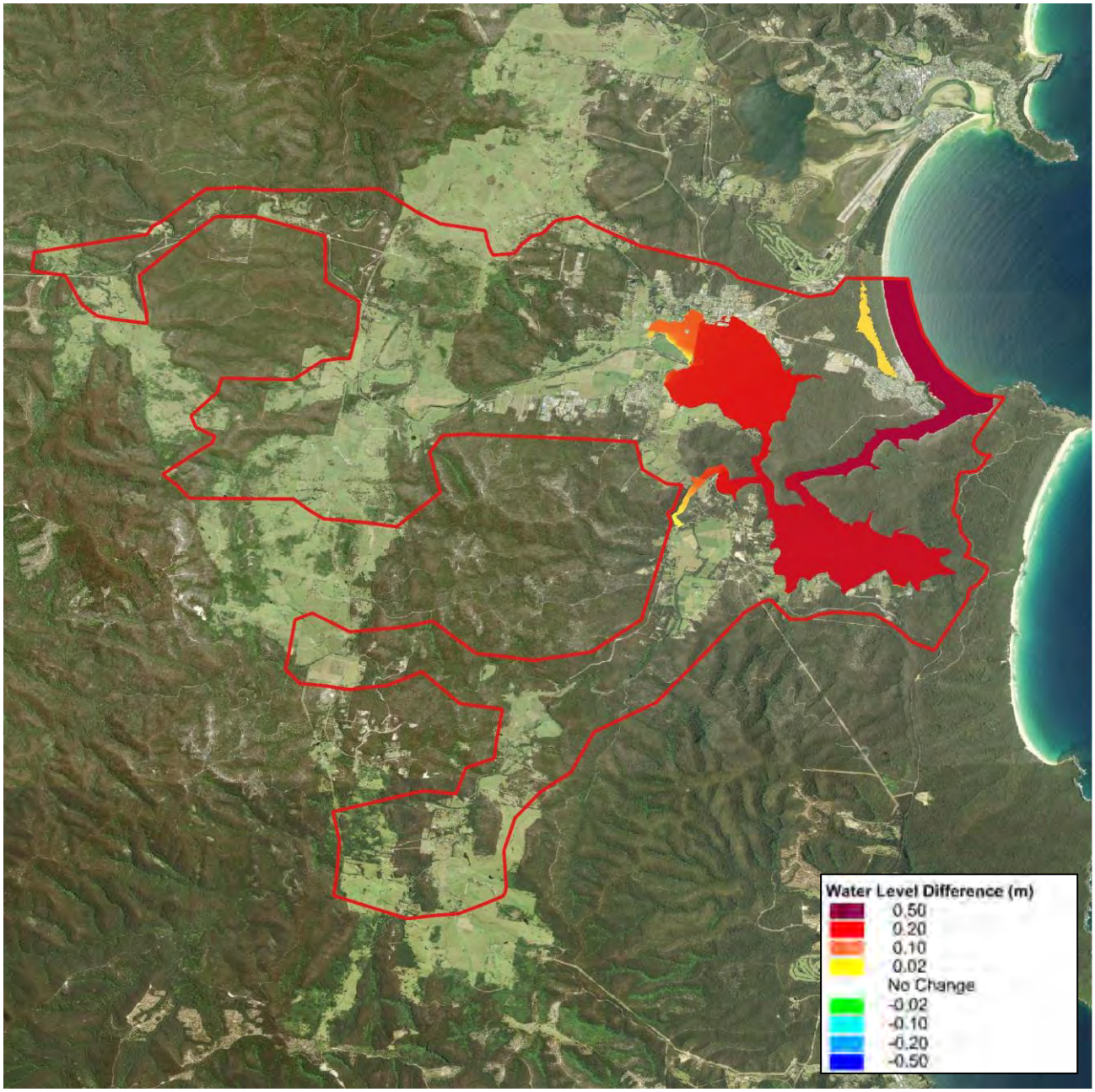
HHWS Tide with 0.9m Sea Level Rise and 0.9m Increase in River Entrance Elevation



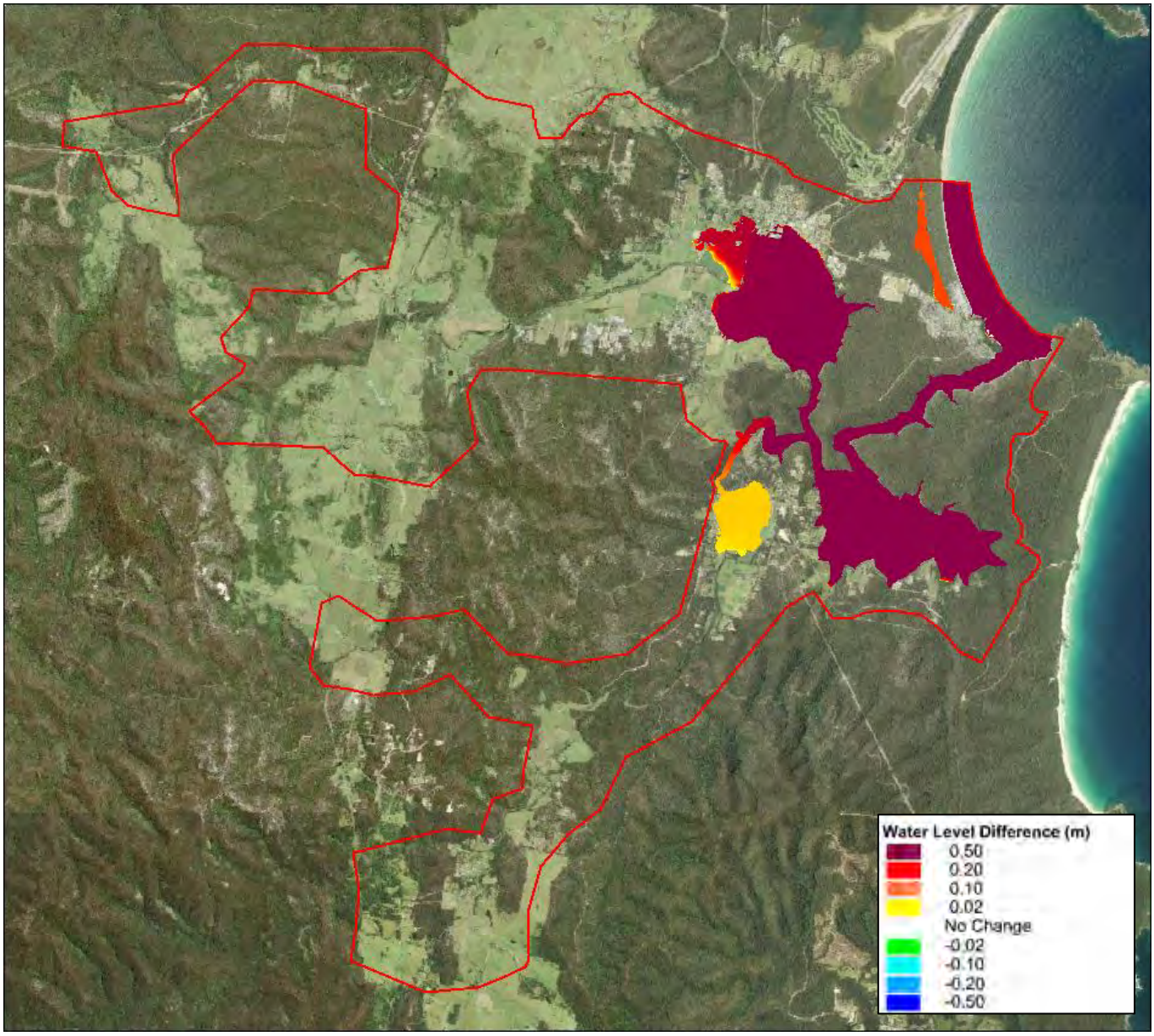
1% AEP Flood with 0.4m Sea Level Rise



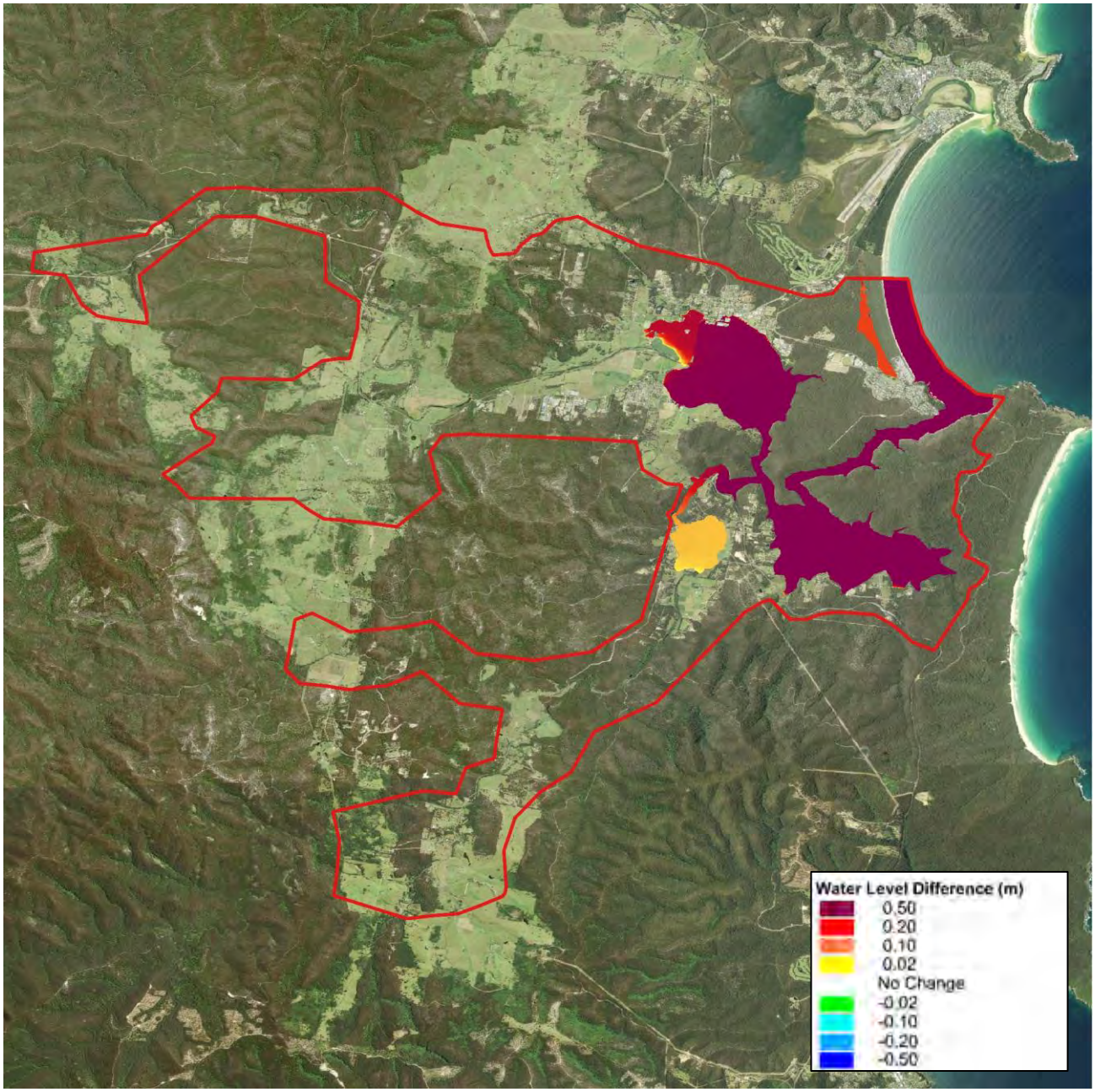
1% AEP Flood with 0.4m Sea Level Rise and 0.4m Increase in River Entrance Elevation



1% AEP Flood with 0.9m Sea Level Rise

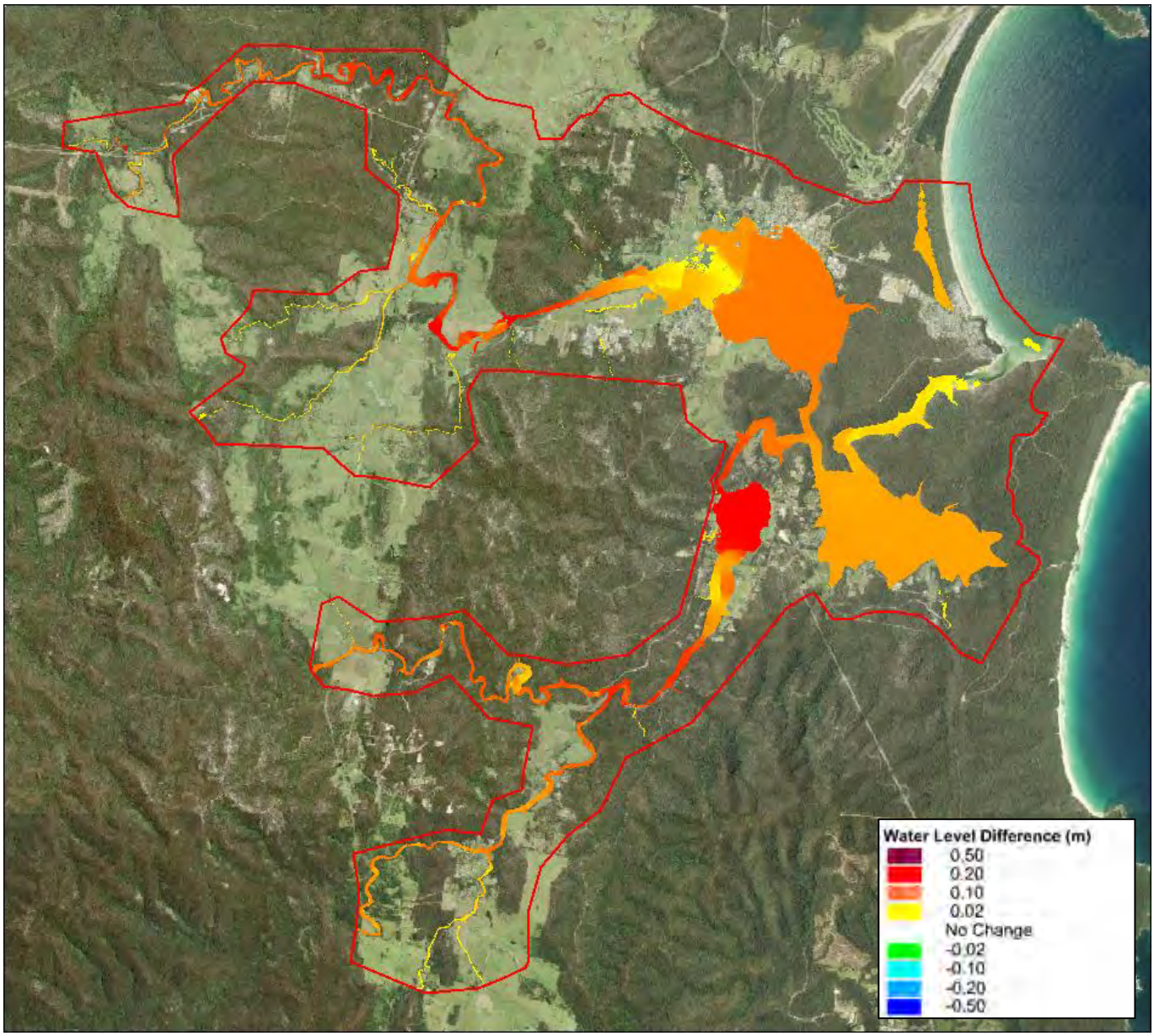


1% AEP Flood with 0.9m Sea Level Rise and 0.9m Increase in River Entrance Elevation

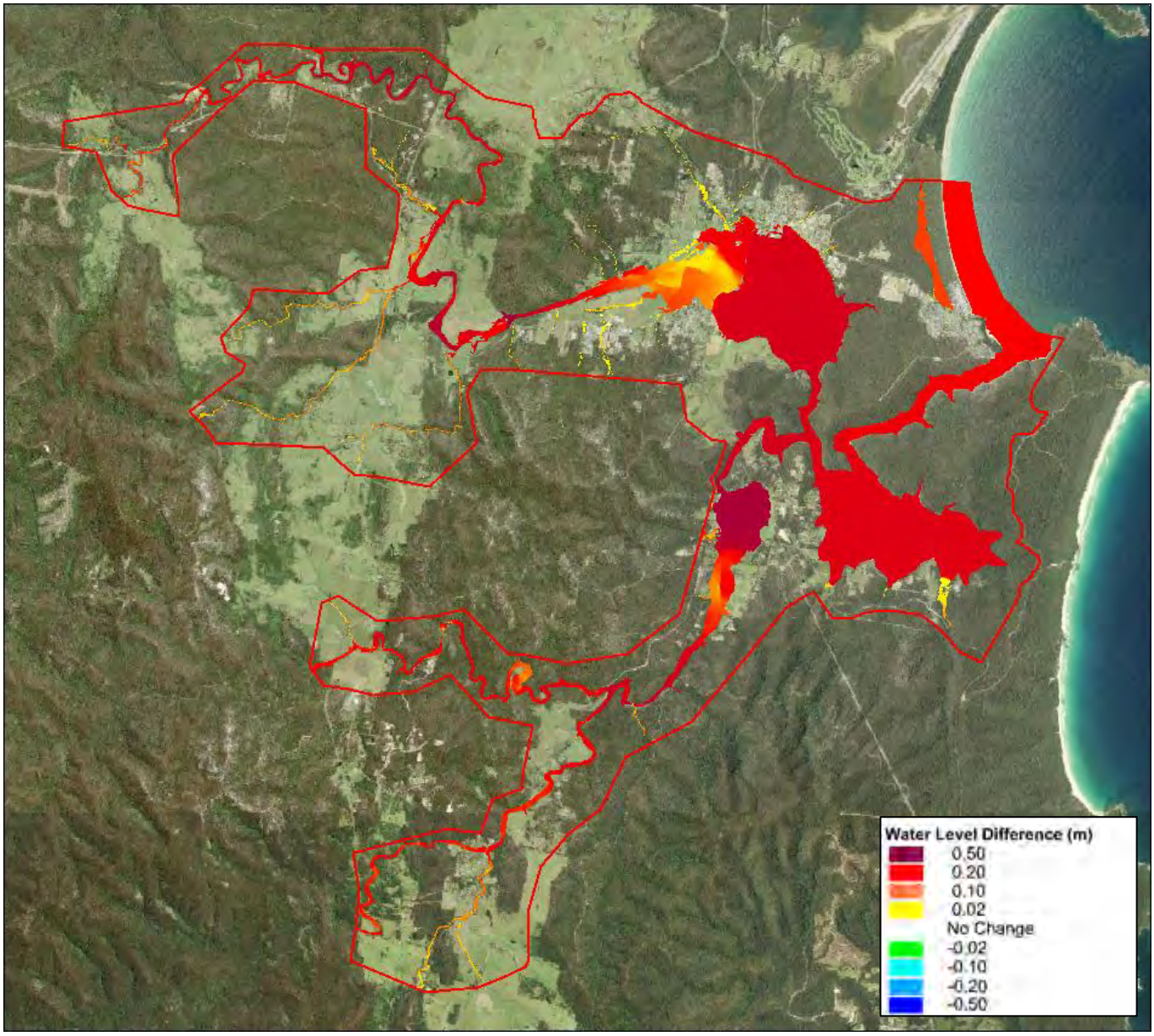


Rainfall Increase Scenarios

1% AEP Flood with 18% increase in Rainfall

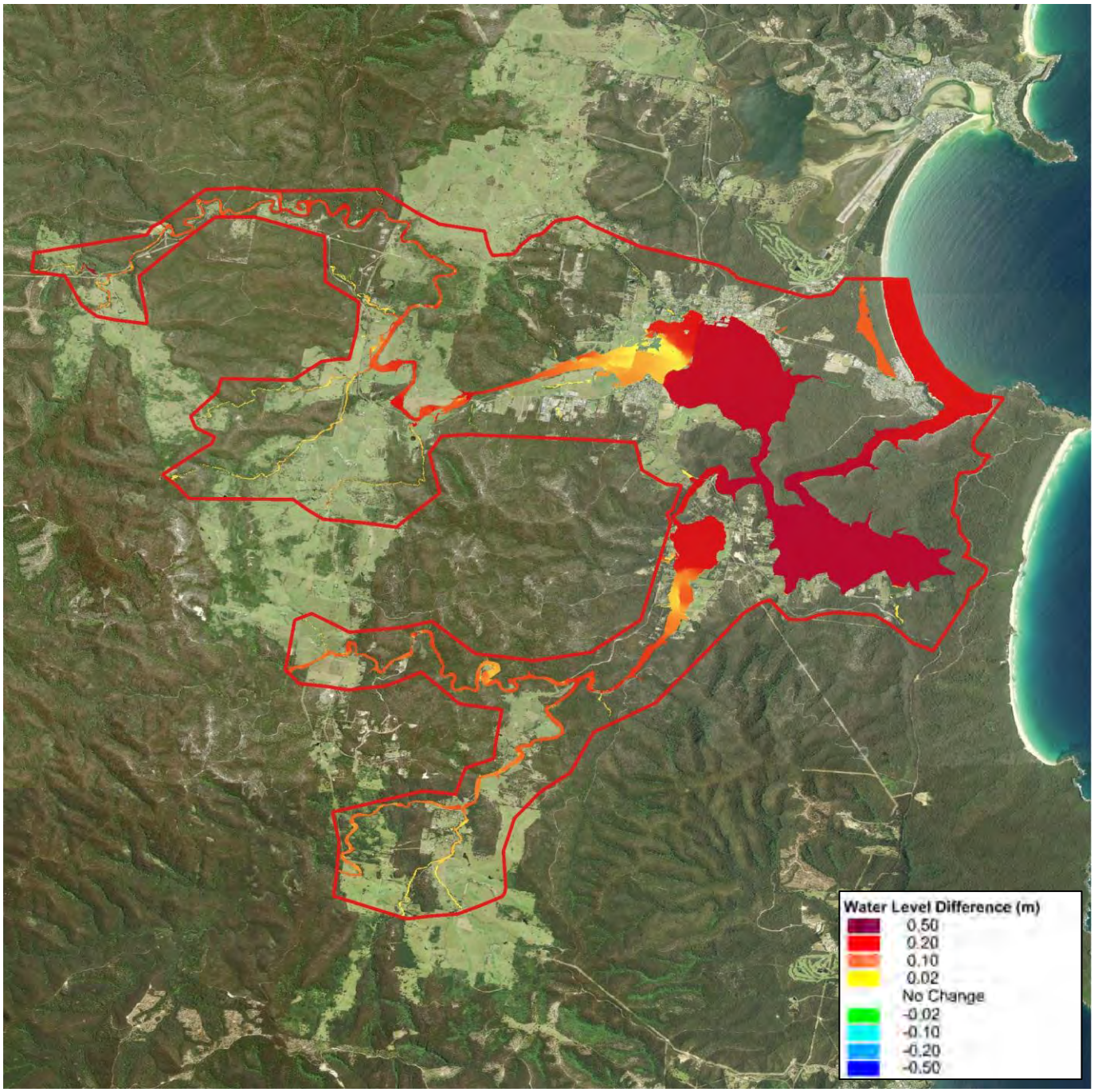


1% AEP Flood with 41% increase in Rainfall

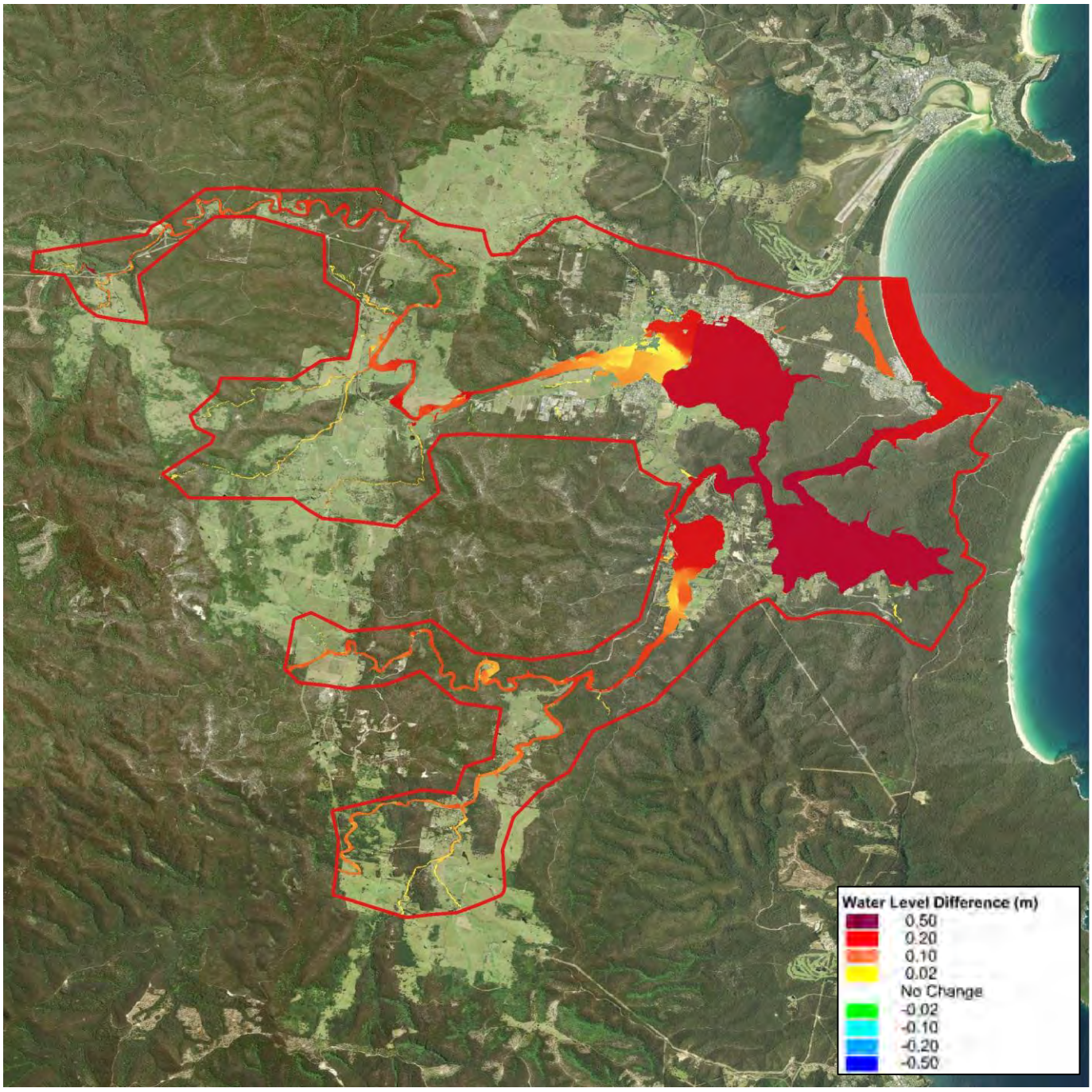


Sea Level and Rainfall Increase Scenarios

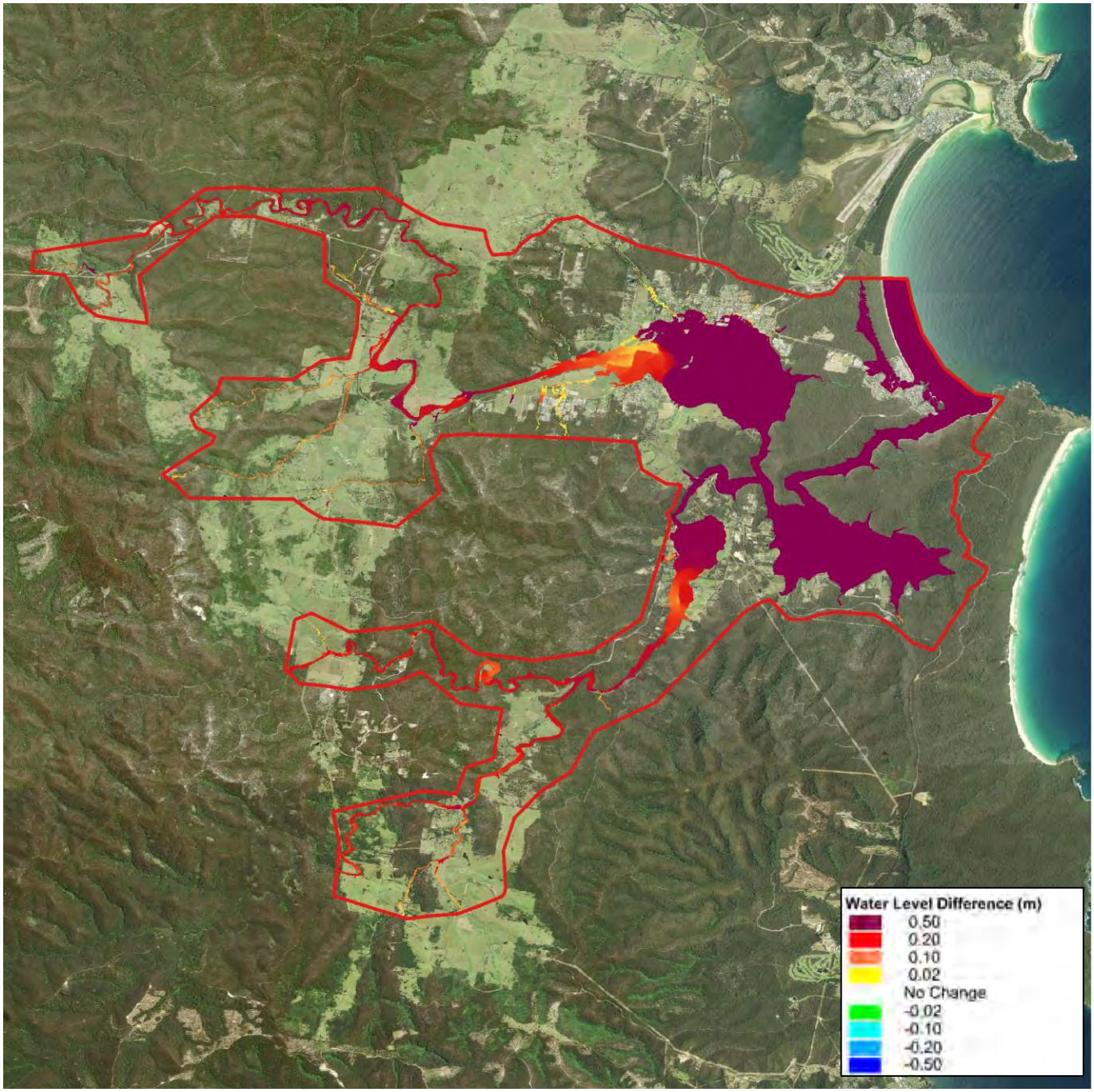
1% AEP Flood with 18% increase in rainfall with 0.4m Sea Level Rise



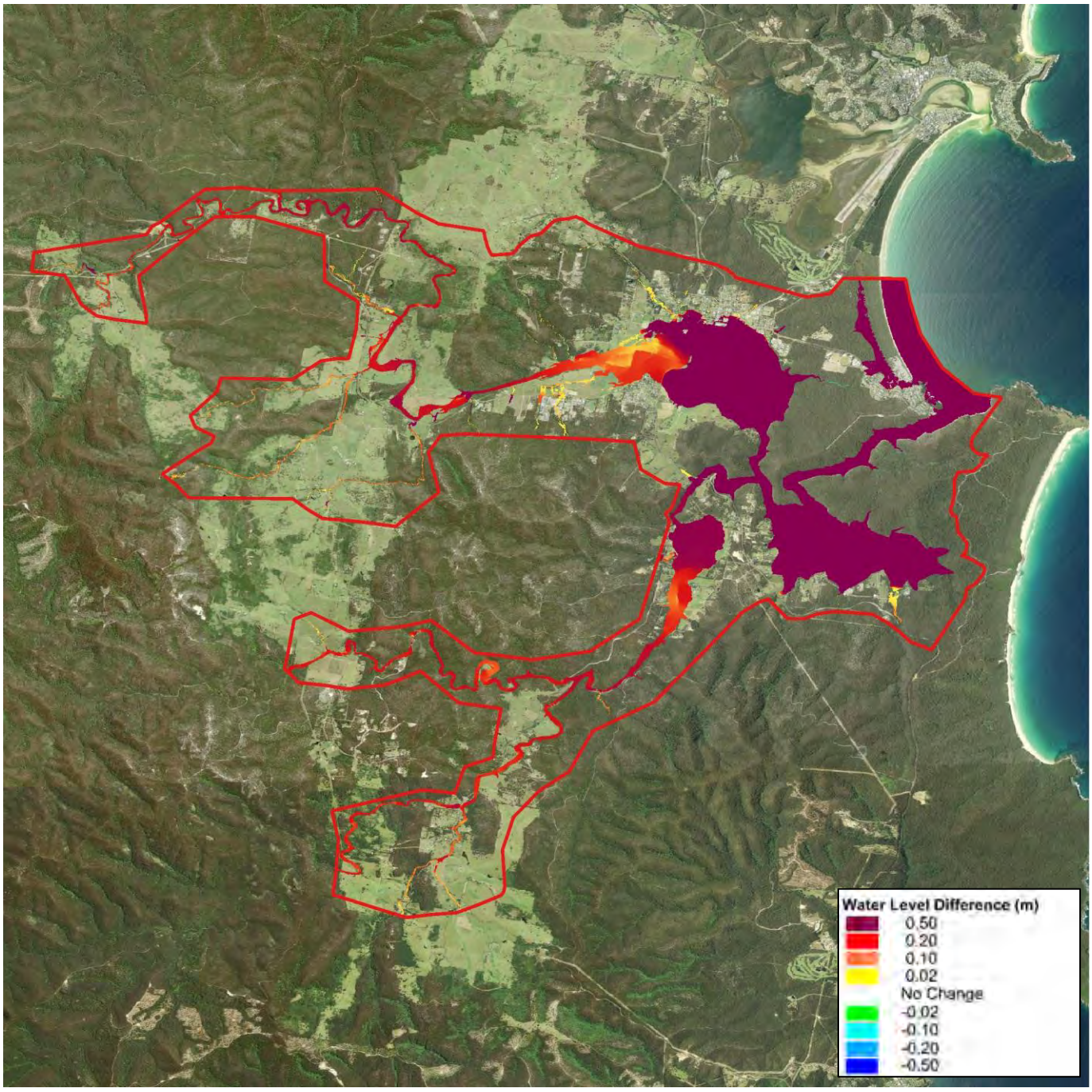
1% AEP Flood with 18% increase in rainfall with 0.4m Sea Level Rise and 0.4m Increase in River Entrance Elevation



1% AEP Flood with 41% increase in rainfall with 0.9m Sea Level Rise



1% AEP Flood with 41% increase in rainfall with 0.9m Sea Level Rise and 0.9m Increase in River Entrance Elevation



APPENDIX N
FUTURE CATCHMENT SCENARIO OUTPUTS

	5% AEP Peak Discharge (m^3/s)		1% AEP Peak Discharge (m^3/s)		0.2% AEP Peak Discharge (m^3/s)		PMF Peak Discharge (m^3/s)	
Subcatchment ID	Existing	Cumulative Future	Existing	Cumulative Future	Existing	Cumulative Future	Existing	Cumulative Future
1.01	12.5	12.5	17.9	18.0	25.9	25.9	72.7	72.7
1.02	16.4	16.4	26.6	23.2	33.7	33.7	95.6	95.6
1.03	22.9	22.9	32.3	32.3	47.1	47.1	135	135
1.04	32.3	32.3	45.8	45.8	68.1	68.2	193	193
1.05	41.2	41.3	58.7	58.7	87.1	87.2	248	248
1.06	42.1	42.1	59.9	59.9	89.0	89.0	254	254
1.07	50.1	50.2	71.5	71.5	105	105	301	301
1.08	55.1	55.2	78.6	78.6	115	115	329	329
1.09	56.6	56.8	80.9	80.9	118	118	339	339
1.10	92.5	92.6	132	133	193	193	537	537
1.11	111	111	159	159	232	232	658	658
1.12	125	125	180	180	263	263	733	733
1.13	254	254	366	367	536	537	1571	1571
1.14	264	265	377	377	553	553	1638	1638
1.15	265	265	378	382	554	554	1641	1641
1.16	270	270	384	385	564	564	1672	1672
1.17	291	291	414	415	608	608	1811	1811
1.18	313	313	445	445	651	652	1979	1979
1.19	318	318	452	452	662	662	2022	2022
1.20	387	388	552	552	807	807	2625	2625
1.21	390	390	555	555	811	812	2644	2644
1.22	418	418	595	595	869	869	2867	2867
1.23	425	425	605	604	883	883	2918	2918
1.24	425	425	605	605	883	883	2919	2919
1.25	427	427	608	607	887	887	2932	2932
1.26	432	431	614	614	896	896	2963	2963
1.27	437	437	621	621	908	907	2992	2992
1.28	437	437	622	621	909	908	2994	2994
1.29	461	459	656	654	958	956	3153	3153
1.30	463	461	658	656	962	959	3161	3161
1.31	498	496	710	708	1037	1037	3375	3375
1.32	498	496	710	708	1037	1037	3375	3375
1.33	971	971	1396	1399	2045	2049	6176	6176
1.34	972	972	1399	1401	2049	2050	6179	6179
1.35	1023	1023	1477	1479	2163	2165	6452	6452
1.36	1023	1024	1479	1481	2164	2166	6453	6453
1.37	1024	1024	1480	1482	2164	2167	6453	6453
1.38	1024	1024	1482	1484	2165	2168	6454	6454
1.39	1028	1029	1491	1493	2173	2177	6471	6471
1.40	1034	1035	1504	1506	2203	2207	6497	6497
2.01	3.22	3.22	4.73	4.73	6.68	6.68	20.1	20.1
3.01	6.76	6.77	8.32	8.32	12.3	12.3	35.4	35.4
4.01	6.11	6.16	8.71	8.73	12.8	12.8	36.3	36.3
5.01	7.46	7.47	9.02	9.01	13.4	13.4	38.4	38.4
6.01	6.44	6.47	9.27	9.32	13.5	13.5	36.6	36.6
7.01	4.13	4.13	5.96	5.96	8.67	8.67	23.2	23.2
8.01	11.4	11.5	17.2	17.2	25.0	25.1	55.4	55.4
8.02	22.9	22.9	32.9	33.0	48.5	48.6	117	117
8.03	22.9	23.0	32.9	33.0	48.5	48.6	118	118
8.04	33.3	33.4	47.8	47.9	69.8	70.3	179	179
8.05	34.3	34.4	49.2	49.4	71.9	72.4	185	185
9.01	7.16	7.24	10.4	10.4	15.2	15.2	39.8	39.8
10.01	4.25	4.25	6.10	6.10	8.88	8.86	27.0	27.0
10.02	10.3	10.3	14.8	14.8	21.3	21.4	62.9	62.9
11.01	5.97	6.04	8.61	8.62	12.5	12.5	35.6	35.6
12.01	5.90	5.02	7.31	7.34	10.8	10.3	33.8	33.8
12.02	8.78	8.82	12.6	12.6	18.0	18.1	58.2	58.2
12.03	13.9	14.0	20.1	20.1	28.8	28.9	92.4	92.4
13.01	1.74	1.74	2.46	2.48	3.58	3.59	11.7	11.7
14.01	4.10	4.83	5.87	5.88	8.67	8.71	26.9	26.9
14.02	5.86	4.97	7.07	7.09	10.6	10.4	32.7	32.7
15.01	0.730	0.730	1.03	1.04	1.48	1.48	5.15	5.15
16.01	5.23	5.23	7.88	7.89	11.4	11.4	29.5	29.5
16.02	7.84	7.87	11.7	11.8	17.2	17.2	46.4	46.4
17.01	8.21	8.22	11.7	11.7	17.2	17.3	48.2	48.2
17.02	18.6	18.9	27.2	27.2	39.5	39.5	120	120
17.03	23.9	24.0	34.9	34.9	50.7	50.7	156	156
17.04	34.4	34.5	49.4	49.6	72.3	72.4	214	214
17.05	40.6	40.7	58.2	58.3	85.2	85.3	262	262
17.06	50.7	50.8	72.6	72.8	106	106	323	323
17.07	57.8	57.9	82.7	82.9	121	121	381	381
17.08	79.3	79.6	115	115	168	168	528	528
17.09	81.2	81.4	117	117	172	172	543	543
17.10	87.6	87.8	125	126	185	185	584	584
17.11	123	124	179	179	260	260	795	795
17.12	125	126	182	182	264	264	810	810

	5% AEP Peak Discharge (m^3/s)		1% AEP Peak Discharge (m^3/s)		0.2% AEP Peak Discharge (m^3/s)		PMF Peak Discharge (m^3/s)	
Subcatchment ID	Existing	Cumulative Future	Existing	Cumulative Future	Existing	Cumulative Future	Existing	Cumulative Future
17.13	127	127	184	184	266	267	818	818
18.01	7.49	7.62	10.8	10.9	15.7	15.8	50.5	50.5
19.01	3.66	3.67	5.29	5.30	7.68	7.69	24.6	24.6
20.01	8.84	8.88	13.3	13.4	19.4	19.5	50.3	50.3
21.01	7.29	7.33	10.9	11.0	15.9	16.0	42.5	42.5
21.02	8.15	8.20	12.2	12.2	17.9	18.0	48.0	48.0
22.01	6.52	5.53	8.04	8.06	11.8	11.4	48.4	48.4
23.01	4.57	4.60	6.46	6.48	9.36	9.43	29.4	29.4
23.02	14.5	14.5	20.7	20.8	30.2	30.2	94.9	94.9
23.03	19.7	19.8	28.2	28.3	40.8	41.1	133	133
23.04	20.0	20.1	28.6	28.6	41.5	41.6	135	135
24.01	5.81	5.85	8.37	8.38	12.1	12.1	37.2	37.2
25.01	2.11	2.11	2.94	2.94	4.40	4.40	15.8	15.8
26.01	6.34	6.34	9.12	9.12	13.4	13.4	40.4	40.4
26.02	6.42	6.42	9.23	9.23	13.5	13.5	40.9	40.9
27.01	8.04	8.05	11.5	11.6	16.8	16.8	46.9	46.9
27.02	17.6	17.6	25.1	25.1	37.0	37.1	103	103
27.03	30.0	30.0	43.5	43.6	63.8	63.9	172	172
28.01	1.73	1.73	2.45	2.47	3.54	3.55	11.7	11.7
28.02	2.35	2.35	3.31	3.33	4.81	4.82	15.8	15.8
29.01	6.96	7.01	9.98	10.1	14.6	14.6	40.8	40.8
30.01	2.05	2.06	2.91	2.92	4.32	4.33	17.9	17.9
31.01	1.73	1.73	2.13	2.12	3.07	3.06	12.7	12.7
32.01	8.60	8.59	12.3	12.3	18.1	18.2	52.9	52.9
33.01	4.09	4.11	5.90	5.92	8.61	8.60	27.3	27.3
34.01	5.97	6.03	8.62	8.61	12.6	12.6	40.5	40.5
34.02	14.9	15.0	20.9	21.1	30.6	30.8	105	105
34.03	15.2	15.2	21.3	21.4	31.2	31.3	107	107
35.01	4.17	4.20	6.00	6.03	8.74	8.74	35.5	35.5
35.02	8.52	8.55	12.8	12.9	18.7	18.7	66.9	66.9
35.03	11.5	11.5	17.2	17.3	25.0	25.1	91.1	91.1
35.04	11.6	11.7	17.5	17.5	25.3	25.7	92.0	92.0
35.05	18.7	18.8	27.1	27.0	39.8	39.8	152	152
36.01	0.530	0.530	0.740	0.740	1.11	1.10	4.64	4.64
37.01	3.47	3.49	5.08	5.07	7.34	7.35	33.9	33.9
38.01	3.56	3.58	5.21	5.21	7.66	7.66	34.7	34.7
38.02	4.35	4.35	6.45	6.47	9.36	9.39	42.4	42.4
39.01	4.82	4.84	6.97	6.96	10.1	10.1	35.4	35.4
39.02	10.3	10.4	14.6	14.7	21.2	21.2	80.2	80.2
39.03	15.2	15.2	21.0	21.1	31.3	31.3	120	120
39.04	29.0	29.1	41.8	41.8	62.4	62.4	249	249
39.05	36.9	36.9	53.1	53.1	78.4	78.6	325	325
39.06	67.8	67.8	97.6	97.9	143	144	629	629
40.01	2.70	2.72	3.84	3.87	5.73	5.74	24.4	24.4
41.01	3.40	3.43	4.93	5.00	7.22	7.25	31.2	31.2
42.01	6.88	6.92	9.87	9.93	14.4	14.4	58.2	58.2
43.01	2.19	2.21	3.18	3.19	4.73	4.55	23.5	23.5
44.01	7.50	7.56	10.7	10.7	15.8	15.8	69.1	69.1
44.02	18.7	18.8	26.9	27.0	39.4	39.7	179	179
44.03	28.6	28.7	41.2	41.5	60.6	60.8	278	278
45.01	4.94	4.96	7.34	7.37	10.3	10.4	47.9	47.9
46.01	6.91	6.92	10.2	10.2	15.2	15.2	67.0	67.0
47.01	6.34	6.40	9.07	9.08	13.4	13.2	57.0	57.0
47.02	8.93	9.01	12.6	12.7	18.4	18.6	79.7	79.7
47.03	9.84	9.91	13.8	13.8	20.3	20.5	86.3	86.3
47.04	19.6	19.7	28.2	28.3	41.3	41.5	178	178
47.05	26.1	26.2	37.0	37.0	53.7	53.8	232	232
48.01	2.42	2.44	3.48	3.50	5.01	5.09	21.8	21.8
49.01	4.09	4.10	5.17	5.20	7.27	7.38	35.7	35.7
49.02	4.02	4.04	5.75	5.79	8.51	8.56	40.4	40.4
49.03	4.09	4.11	5.85	5.88	8.65	8.69	40.9	40.9
50.01	0.700	0.700	0.990	1.00	1.42	1.43	6.19	6.19
51.01	2.31	2.32	3.40	3.40	4.81	4.87	20.9	20.9
52.01	1.09	1.09	1.54	1.54	2.28	2.28	9.78	9.78
52.02	2.56	2.67	3.65	3.79	5.34	5.53	22.3	22.3
53.01	3.67	3.67	5.32	5.32	7.74	7.74	31.5	31.5
54.01	1.67	1.68	2.04	2.04	3.00	3.01	12.6	12.6
54.02	2.12	2.35	3.04	3.26	4.40	4.67	18.1	18.1
54.03	2.45	2.68	3.44	3.73	4.99	5.31	20.1	20.1
55.01	1.76	1.75	2.59	2.60	3.59	3.63	15.8	15.8
56.01	2.40	2.42	3.58	3.40	5.13	5.16	21.5	21.5
56.02	4.00	4.00	5.90	5.90	8.37	8.39	33.6	33.6
56.03	4.70	4.70	6.91	6.90	9.80	9.81	39.2	39.2
57.01	2.12	2.13	2.93	2.97	4.36	4.43	16.2	16.2
57.02	4.92	4.94	7.26	7.27	10.9	10.9	31.8	31.8
58.01	3.81	3.81	5.52	5.51	7.97	7.97	30.1	30.1

	5% AEP Peak Discharge (m^3/s)		1% AEP Peak Discharge (m^3/s)		0.2% AEP Peak Discharge (m^3/s)		PMF Peak Discharge (m^3/s)	
Subcatchment ID	Existing	Cumulative Future	Existing	Cumulative Future	Existing	Cumulative Future	Existing	Cumulative Future
58.02	5.57	5.57	8.08	8.07	11.7	11.7	43.0	43.0
58.03	8.07	8.34	11.7	11.8	16.8	17.0	61.3	61.3
58.04	13.6	14.4	22.2	20.4	28.1	29.2	107	107
58.05	14.5	15.8	21.0	22.3	30.6	31.8	113	113
58.06	21.1	23.8	30.5	33.7	44.9	47.0	158	158
58.07	24.2	26.9	35.0	38.3	51.1	53.5	178	178
59.01	2.03	2.03	2.52	2.53	3.67	3.68	13.2	13.2
60.01	1.61	1.62	2.31	2.32	3.39	3.41	14.8	14.8
60.02	2.05	2.07	2.94	2.96	4.33	4.36	19.0	19.0
60.03	4.48	4.69	6.36	6.83	9.36	9.97	37.6	37.6
61.01	1.54	1.54	1.90	1.90	2.78	2.78	11.2	11.2
62.01	0.320	0.420	0.460	0.580	0.680	0.820	2.43	2.43
63.01	0.030	0.030	0.040	0.040	0.050	0.060	0.200	0.200
64.01	0.910	1.21	1.29	1.58	1.93	2.22	7.02	7.02
64.02	5.20	5.99	7.15	8.40	10.5	11.8	36.1	36.1
65.01	0.540	0.730	0.760	1.02	1.12	1.42	4.00	4.00
66.01	0.660	0.660	0.950	0.950	1.35	1.36	5.14	5.14
66.02	2.27	2.54	3.29	3.78	4.79	5.41	16.6	16.6
67.01	0.130	0.130	0.180	0.180	0.250	0.260	0.870	0.870
68.01	0.210	0.210	0.270	0.290	0.390	0.420	1.43	1.43
69.01	0.200	0.210	0.280	0.290	0.400	0.420	1.42	1.42
69.02	0.360	0.360	0.500	0.500	0.710	0.710	2.45	2.45
70.01	0.160	0.160	0.200	0.220	0.290	0.310	1.05	1.05
71.01	0.160	0.170	0.230	0.240	0.330	0.340	1.16	1.16
72.01	0.200	0.200	0.270	0.280	0.380	0.400	1.35	1.35
73.01	0.150	0.150	0.190	0.210	0.270	0.290	1.00	1.00
74.01	1.21	1.21	1.80	1.80	2.50	2.50	8.42	8.42
75.01	0.660	0.660	1.06	1.07	1.70	1.73	2.71	2.71
75.02	0.770	0.790	1.27	1.28	2.04	2.08	3.30	3.30
76.01	0.860	0.870	1.22	1.23	1.83	1.84	6.05	6.05
76.02	0.920	0.920	1.35	1.36	1.99	1.99	6.41	6.41
77.01	2.06	2.13	3.02	2.95	4.28	4.33	15.7	15.7
77.02	4.60	4.61	6.71	6.49	9.54	9.65	35.0	35.0
77.03	8.70	8.70	12.6	12.5	18.2	18.3	61.9	61.9
77.04	9.69	9.70	14.0	14.1	20.5	20.5	69.1	69.1
77.05	10.3	10.6	15.0	15.0	21.9	21.9	73.5	73.5
77.06	10.5	10.8	15.2	15.2	22.2	22.2	74.4	74.4
77.07	21.4	21.7	30.5	30.7	43.2	43.4	143	143
77.08	22.0	21.0	31.3	31.6	44.0	44.3	145	145
77.09	22.1	21.1	31.6	31.8	44.3	44.6	146	146
77.10	21.3	21.5	32.1	32.3	45.0	45.4	148	148
77.11	24.4	24.6	36.5	36.5	51.7	52.1	167	167
77.12	27.4	27.8	39.3	39.8	60.0	59.9	183	183
77.13	33.4	33.9	48.7	49.2	70.7	71.2	213	213
78.01	1.94	1.96	2.78	2.78	4.08	4.03	14.6	14.6
78.02	4.59	4.60	7.07	7.09	10.6	10.6	33.0	33.0
79.01	1.32	1.33	1.90	1.92	2.79	2.80	10.3	10.3
80.01	0.600	0.600	0.860	0.860	1.24	1.24	4.63	4.63
81.01	1.29	1.30	1.84	1.87	2.69	2.73	9.03	9.03
81.02	1.45	1.46	2.07	2.09	3.03	3.05	9.93	9.93
81.03	2.96	2.96	4.23	4.27	6.22	6.22	20.0	20.0
81.04	5.48	5.60	7.93	8.09	11.4	11.6	36.0	36.0
82.01	0.290	0.290	0.410	0.420	0.600	0.600	2.02	2.02
82.02	1.23	1.23	1.77	1.79	2.59	2.59	8.32	8.32
82.03	1.41	1.41	2.02	2.04	2.95	2.95	9.51	9.51
83.01	0.900	0.970	1.29	1.38	1.86	1.95	6.22	6.22
83.02	1.80	1.93	2.56	2.72	3.65	3.86	11.9	11.9
83.03	1.99	2.13	2.84	3.00	4.04	4.24	13.2	13.2
84.01	0.170	0.180	0.240	0.250	0.340	0.350	1.09	1.09
84.02	0.630	0.650	0.890	0.920	1.27	1.31	4.16	4.16
85.01	0.340	0.350	0.490	0.500	0.700	0.720	2.30	2.30
86.01	0.050	0.050	0.070	0.070	0.100	0.100	0.320	0.320
87.01	0.260	0.270	0.360	0.380	0.520	0.540	1.66	1.66
87.02	0.490	0.510	0.680	0.680	0.960	0.970	3.10	3.10
88.01	0.100	0.110	0.150	0.160	0.210	0.220	0.660	0.660
89.01	0.160	0.160	0.220	0.220	0.310	0.310	1.03	1.03
90.01	0.100	0.110	0.150	0.160	0.200	0.220	0.660	0.660
91.01	0.300	0.340	0.420	0.480	0.600	0.670	1.90	1.90
92.01	0.480	0.490	0.690	0.700	0.980	1.04	2.99	2.99
92.02	1.90	2.03	2.72	2.88	3.98	4.06	11.8	11.8
92.03	2.04	2.18	2.92	3.09	4.31	4.36	12.4	12.4
92.04	3.01	3.35	4.31	4.59	6.20	6.66	17.7	17.7
93.01	0.150	0.170	0.220	0.240	0.310	0.340	1.07	1.07
94.01	0.180	0.190	0.250	0.270	0.350	0.380	1.12	1.12
95.01	0.220	0.230	0.310	0.330	0.440	0.470	1.39	1.39
96.01	0.090	0.100	0.140	0.140	0.180	0.200	0.590	0.590

	5% AEP Peak Discharge (m^3/s)		1% AEP Peak Discharge (m^3/s)		0.2% AEP Peak Discharge (m^3/s)		PMF Peak Discharge (m^3/s)	
Subcatchment ID	Existing	Cumulative Future	Existing	Cumulative Future	Existing	Cumulative Future	Existing	Cumulative Future
97.01	0.100	0.110	0.150	0.160	0.200	0.220	0.650	0.650
98.01	0.300	0.340	0.430	0.480	0.620	0.680	2.07	2.07
99.01	1.68	1.78	2.43	2.56	3.54	3.66	9.38	9.38
99.02	2.27	2.47	3.30	3.54	4.75	5.08	12.4	12.4
100.01	0.050	0.060	0.070	0.080	0.110	0.120	0.340	0.340
101.01	0.040	0.040	0.050	0.060	0.080	0.080	0.250	0.250
102.01	0.070	0.070	0.100	0.100	0.140	0.140	0.440	0.440
103.01	0.040	0.040	0.060	0.060	0.080	0.080	0.280	0.280
104.01	0.140	0.150	0.190	0.210	0.270	0.300	0.860	0.860
104.02	0.360	0.410	0.500	0.570	0.700	0.790	2.28	2.28
105.01	0.030	0.030	0.050	0.050	0.060	0.060	0.210	0.210
106.01	3.13	3.14	4.94	4.99	7.46	7.51	13.8	13.8
106.02	4.70	4.74	7.27	7.31	10.8	10.9	23.7	23.7
107.01	1.93	1.93	2.34	2.34	3.43	3.43	10.6	10.6
108.01	1.12	1.46	1.62	1.98	2.37	2.91	6.01	6.01
108.02	1.15	1.48	1.65	2.00	2.42	2.95	6.13	6.13
109.01	2.66	2.66	3.24	3.24	4.84	4.84	15.3	15.3
110.01	1.35	1.32	1.90	1.90	2.76	2.76	9.31	9.31
111.01	0.630	0.640	0.890	0.900	1.27	1.29	4.39	4.39
112.01	0.490	0.490	0.690	0.690	0.990	0.990	3.36	3.36
113.01	0.230	0.230	0.330	0.330	0.480	0.490	1.59	1.59
114.01	7.45	7.49	10.7	10.7	15.5	15.6	46.9	46.9
114.02	11.3	11.4	16.2	16.2	23.5	23.6	71.7	71.7
114.03	21.9	22.0	31.5	31.5	45.4	45.5	134	134
114.04	35.3	35.4	52.0	52.1	76.8	77.0	214	214
114.05	45.4	45.7	67.9	68.2	100.0	100	269	269
114.06	112	112	162	162	235	235	660	660
114.07	121	121	175	175	255	255	729	729
114.08	132	132	191	191	277	277	798	798
114.09	135	135	195	195	284	284	820	820
114.10	142	142	206	206	299	299	877	877
114.11	152	152	220	220	319	319	954	954
114.12	154	154	223	223	324	324	970	970
114.13	174	175	254	254	370	370	1092	1092
114.14	182	182	265	265	387	387	1137	1137
114.15	183	183	267	267	389	389	1142	1142
114.16	391	392	569	569	825	825	2295	2295
114.17	418	419	606	607	881	882	2445	2445
114.18	426	426	617	618	897	898	2487	2487
114.19	429	430	622	623	905	905	2504	2504
114.20	434	435	629	629	915	915	2530	2530
114.21	469	469	679	680	991	992	2748	2748
114.22	474	474	686	687	1001	1002	2775	2775
114.23	475	476	689	689	1005	1005	2782	2782
114.24	479	480	695	695	1013	1014	2804	2804
114.25	487	487	705	705	1029	1029	2844	2844
115.01	3.50	3.50	5.00	5.01	7.24	7.23	22.7	22.7
116.01	6.66	6.70	9.59	9.54	13.8	13.8	38.9	38.9
117.01	4.55	4.58	6.54	6.55	9.62	9.63	34.0	34.0
118.01	11.0	11.0	16.7	16.8	25.0	25.1	54.4	54.4
119.01	13.1	13.1	18.8	18.8	27.0	27.2	67.3	67.3
119.02	20.1	20.2	28.8	28.8	41.5	41.7	111	111
119.03	53.8	53.9	76.5	76.8	110	111	321	321
119.04	62.3	62.5	88.7	88.9	128	128	377	377
120.01	5.10	5.13	7.21	7.20	10.3	10.3	31.0	31.0
121.01	8.32	7.08	10.0	10.1	14.7	14.8	44.2	44.2
121.02	18.2	18.4	25.9	26.0	37.8	38.0	113	113
121.03	23.6	23.8	33.6	33.6	49.4	49.5	148	148
121.04	31.5	31.6	44.6	44.7	64.5	64.8	195	195
122.01	8.51	8.59	12.1	12.1	17.4	17.5	52.3	52.3
123.01	5.15	5.16	6.26	6.29	9.16	8.90	27.9	27.9
124.01	6.52	6.57	9.31	9.39	13.5	13.5	38.4	38.4
125.01	5.34	5.39	7.59	7.60	11.1	11.1	37.3	37.3
126.01	9.18	9.17	13.3	13.3	19.6	19.6	67.7	67.7
127.01	6.51	6.49	9.23	9.25	13.2	13.3	44.2	44.2
128.01	5.33	5.36	7.53	7.55	10.9	11.0	45.0	45.0
129.01	4.97	4.97	6.09	6.10	9.05	8.83	37.6	37.6
129.02	8.04	8.11	11.4	11.5	17.0	17.1	70.3	70.3
129.03	10.3	10.4	14.7	14.7	21.8	21.8	90.9	90.9
130.01	2.57	2.59	3.83	3.65	5.47	5.52	23.8	23.8
131.01	2.08	2.08	2.89	2.90	4.21	4.22	14.8	14.8
131.02	8.45	8.46	12.6	12.6	18.4	18.4	52.3	52.3
131.03	12.8	12.8	19.3	19.3	28.1	28.0	82.8	82.8
132.01	3.92	3.92	4.98	4.98	6.98	7.02	26.9	26.9
133.01	12.1	12.1	14.6	14.6	21.4	21.4	58.8	58.8
133.02	26.0	26.1	31.3	31.4	46.1	46.3	131	131

	5% AEP Peak Discharge (m^3/s)		1% AEP Peak Discharge (m^3/s)		0.2% AEP Peak Discharge (m^3/s)		PMF Peak Discharge (m^3/s)	
Subcatchment ID	Existing	Cumulative Future	Existing	Cumulative Future	Existing	Cumulative Future	Existing	Cumulative Future
133.03	35.7	35.8	51.0	51.0	73.2	73.5	202	202
133.04	40.6	40.8	66.2	66.3	82.8	83.0	231	231
133.05	50.7	50.8	72.4	72.5	104	105	293	293
133.06	50.9	51.0	83.6	83.7	105	105	294	294
133.07	92.0	92.2	133	134	193	193	482	482
133.08	92.7	93.0	135	135	194	194	486	486
133.09	111	111	161	161	231	232	595	595
133.10	122	122	177	177	254	254	665	665
133.11	139	139	201	202	291	291	755	755
133.12	191	192	277	277	399	399	1055	1055
133.13	202	202	293	293	423	423	1115	1115
133.14	206	206	298	298	430	431	1138	1138
134.01	7.68	7.77	11.0	11.1	16.2	15.7	47.4	47.4
135.01	9.94	9.95	14.2	14.3	20.6	20.6	49.3	49.3
136.01	3.56	3.58	5.26	5.06	7.30	7.41	23.3	23.3
137.01	5.17	5.18	6.33	6.36	8.86	8.97	28.2	28.2
138.01	15.4	15.5	22.9	23.0	34.0	34.2	65.0	65.0
138.02	19.0	19.1	28.8	28.9	43.1	43.5	84.4	84.4
138.03	33.7	33.9	49.6	49.8	74.0	74.2	158	158
139.01	6.90	6.94	9.89	9.85	14.2	14.2	36.0	36.0
139.02	13.5	13.5	19.2	19.2	27.8	27.8	67.3	67.3
140.01	0.740	0.740	1.05	1.05	1.48	1.48	4.64	4.64
141.01	10.0	10.1	14.3	14.4	20.8	20.6	63.1	63.1
141.02	11.9	12.0	16.9	17.0	24.8	24.4	75.1	75.1
142.01	1.32	1.32	1.90	1.90	2.68	2.68	9.43	9.43
143.01	7.85	7.93	11.4	11.4	16.6	16.0	56.1	56.1
144.01	7.52	7.59	10.6	10.6	15.5	15.5	46.4	46.4
145.01	5.46	5.50	7.79	7.81	11.4	11.4	34.2	34.2
145.02	15.3	15.4	21.9	22.0	31.5	31.7	85.7	85.7
145.03	23.7	23.8	33.8	33.9	48.8	48.9	135	135
145.04	45.6	45.6	65.4	65.5	95.0	95.1	256	256
145.05	45.7	45.8	65.6	65.7	95.3	95.5	257	257
145.06	52.4	52.4	75.1	75.2	110	110	302	302
146.01	7.52	7.54	10.8	10.8	15.6	15.7	38.3	38.3
147.01	4.89	4.90	6.07	6.08	8.48	8.56	26.8	26.8
148.01	10.9	10.9	15.6	15.6	22.6	22.6	54.5	54.5
148.02	16.5	16.6	23.8	23.9	34.1	34.2	86.4	86.4
148.03	21.7	21.8	31.3	31.4	44.7	44.9	120	120
149.01	4.76	4.79	6.71	6.71	9.62	9.70	29.0	29.0
150.01	4.42	4.52	6.38	6.41	9.26	9.27	28.4	28.4
151.01	4.47	4.49	5.52	5.55	7.87	7.98	26.0	26.0
152.01	1.61	1.62	2.31	2.33	3.36	3.38	11.6	11.6
153.01	5.15	5.18	7.27	7.30	10.6	10.7	37.5	37.5
154.01	2.10	2.10	3.06	3.06	4.31	4.36	16.0	16.0
154.02	2.78	2.78	3.99	4.00	5.86	5.88	20.7	20.7
155.01	7.81	7.83	11.8	11.8	17.9	17.9	41.5	41.5
155.02	7.92	7.93	11.9	12.0	18.1	18.1	41.9	41.9
155.03	13.3	13.3	20.0	19.9	29.2	29.4	73.9	73.9
155.04	13.8	13.8	20.7	20.7	30.4	30.5	77.0	77.0
155.05	22.3	22.2	32.7	32.7	47.6	47.6	127	127
155.06	26.1	26.1	38.5	38.4	55.9	55.7	152	152
156.01	4.47	4.57	6.51	6.53	9.46	9.45	27.7	27.7
156.02	4.72	4.75	6.77	6.77	9.88	9.83	28.7	28.7
157.01	3.29	3.29	4.80	4.83	6.98	6.98	20.6	20.6
158.01	2.05	1.75	2.50	2.50	3.63	3.63	11.7	11.7
159.01	1.98	1.98	2.47	2.47	3.58	3.58	11.6	11.6
160.01	3.45	3.45	5.02	5.00	7.24	7.23	22.4	22.4
160.02	3.71	3.72	5.35	5.41	7.82	7.86	23.9	23.9
161.01	6.79	6.80	10.1	10.1	14.9	14.9	38.6	38.6
162.01	0.610	0.610	0.870	0.870	1.24	1.24	4.24	4.24
162.02	4.23	4.24	6.26	6.26	9.06	9.09	24.3	24.3
162.03	4.30	4.31	6.37	6.37	9.22	9.25	24.6	24.6
163.01	0.900	0.910	1.29	1.30	1.87	1.89	8.17	8.17
163.02	2.61	2.63	3.73	3.75	5.53	5.55	23.3	23.3
163.03	7.92	7.91	11.5	11.5	17.0	17.0	63.6	63.6
163.04	12.1	12.1	17.4	17.4	25.5	25.6	90.2	90.2
163.05	25.3	25.4	38.3	38.4	57.9	58.1	177	177
163.06	26.7	26.4	39.8	39.9	60.3	60.4	183	183
164.01	8.78	8.77	13.5	13.5	20.5	20.5	58.6	58.6
165.01	4.36	4.37	6.64	6.65	10.0	10.0	26.9	26.9
165.02	5.04	5.06	7.64	7.66	11.5	11.5	31.1	31.1
166.01	1.35	1.36	2.01	1.93	2.78	2.79	9.39	9.39
166.02	3.35	3.35	4.08	4.09	5.97	5.98	19.1	19.1
166.03	4.94	4.95	7.09	7.10	10.3	11.9	31.0	31.0
167.01	1.08	1.08	1.53	1.53	2.26	2.26	8.26	8.26
167.02	2.04	2.05	2.88	2.90	4.30	4.31	15.3	15.3

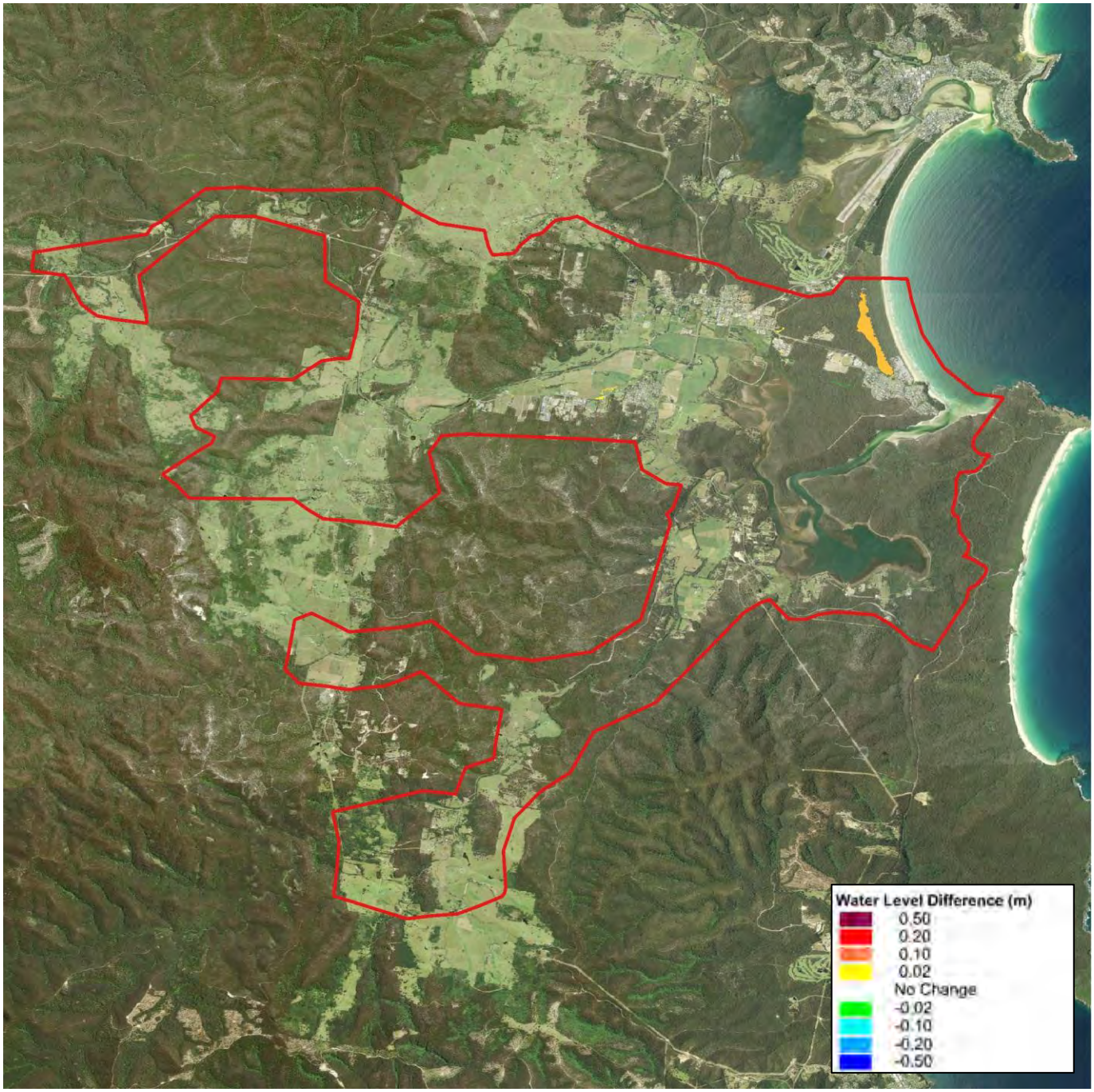
	5% AEP Peak Discharge (m^3/s)		1% AEP Peak Discharge (m^3/s)		0.2% AEP Peak Discharge (m^3/s)		PMF Peak Discharge (m^3/s)	
Subcatchment ID	Existing	Cumulative Future	Existing	Cumulative Future	Existing	Cumulative Future	Existing	Cumulative Future
168.01	2.84	3.36	4.09	4.10	6.10	6.12	21.6	21.6
168.02	3.37	3.38	4.12	4.13	6.14	6.16	21.8	21.8
169.01	5.18	5.30	7.52	7.53	10.9	10.9	36.9	36.9
169.02	5.96	5.99	8.50	8.54	12.4	12.5	41.5	41.5
170.01	0.910	0.920	1.30	1.31	1.87	1.88	6.25	6.25
171.01	0.980	0.980	1.41	1.42	2.10	2.13	6.74	6.74
172.01	0.650	0.650	0.930	0.930	1.33	1.34	4.52	4.52
173.01	1.24	1.24	1.78	1.79	2.56	2.56	7.88	7.88
173.02	9.55	9.66	13.6	13.7	19.8	20.0	52.4	52.4
173.03	17.9	18.0	26.4	26.0	38.5	38.7	103	103
173.04	19.6	19.6	28.3	28.4	42.1	42.3	111	111
173.05	25.3	25.3	36.9	36.9	53.6	53.8	138	138
173.06	32.9	33.0	48.1	48.2	70.4	70.5	170	170
173.07	59.0	59.1	85.6	85.7	124	124	324	324
174.01	0.990	0.990	1.41	1.41	2.03	2.03	6.39	6.39
175.01	0.770	0.770	1.11	1.11	1.62	1.62	4.96	4.96
176.01	0.700	0.700	1.01	1.01	1.44	1.44	4.57	4.57
176.02	3.70	3.73	5.26	5.31	7.77	7.82	22.9	22.9
177.01	2.48	2.47	3.98	3.96	6.23	6.23	10.2	10.2
178.01	2.11	2.11	3.04	3.05	4.43	4.45	11.7	11.7
179.01	0.430	0.440	0.550	0.550	0.770	0.770	2.38	2.38
180.01	2.78	2.78	4.30	4.30	6.63	6.52	12.5	12.5
180.02	3.12	3.13	4.80	4.82	7.22	7.24	13.4	13.4
181.01	2.15	2.15	3.13	3.13	4.56	4.56	12.2	12.2
182.01	0.310	0.310	0.450	0.460	0.650	0.650	2.04	2.04
183.01	3.10	3.12	4.45	4.49	6.69	6.70	21.4	21.4
183.02	5.89	5.90	8.40	8.42	12.5	12.5	38.4	38.4
183.03	10.6	10.6	14.9	15.0	22.3	22.3	66.1	66.1
183.04	16.9	16.9	24.1	24.1	34.8	34.8	104	104
183.05	17.6	17.6	25.1	25.1	36.2	36.3	108	108
183.06	26.3	26.2	37.4	37.3	54.7	54.5	156	156
184.01	0.590	0.590	0.840	0.840	1.20	1.20	3.81	3.81
184.02	3.64	3.57	5.19	5.23	7.49	7.52	21.3	21.3
185.01	0.730	0.730	1.03	1.03	1.47	1.47	5.04	5.04
185.02	3.13	3.16	4.28	4.30	6.40	6.41	19.7	19.7
186.01	1.37	1.39	1.96	2.00	2.86	2.91	9.54	9.54
187.01	2.01	2.01	2.46	2.46	3.58	3.58	10.7	10.7
187.02	3.78	3.78	4.60	4.59	6.73	6.72	19.9	19.9
188.01	0.570	0.570	0.790	0.800	1.13	1.14	3.81	3.81
189.01	0.580	0.580	0.810	0.820	1.16	1.17	3.91	3.91
190.01	0.390	0.390	0.560	0.560	0.790	0.800	2.49	2.49
191.01	1.05	1.06	1.47	1.49	2.21	2.24	6.73	6.73
192.01	1.25	1.25	1.78	1.79	2.54	2.54	8.72	8.72
193.01	1.06	1.06	1.50	1.51	2.16	2.17	7.09	7.09
194.01	0.190	0.190	0.260	0.260	0.380	0.380	1.14	1.14
195.01	0.370	0.370	0.530	0.540	0.760	0.760	2.40	2.40
196.01	0.420	0.420	0.600	0.600	0.860	0.860	2.69	2.69
197.01	0.350	0.350	0.500	0.500	0.720	0.720	2.12	2.12
198.01	0.500	0.500	0.710	0.710	1.01	1.01	3.15	3.15
199.01	1.09	1.09	1.56	1.56	2.26	2.26	6.94	6.94
199.02	1.48	1.49	2.13	2.13	3.07	3.08	9.42	9.42
200.01	0.200	0.200	0.280	0.280	0.400	0.400	1.21	1.21
201.01	0.460	0.470	0.660	0.660	0.940	0.950	2.92	2.92
202.01	3.84	3.85	5.79	5.80	8.75	8.75	18.8	18.8
203.01	0.660	0.660	0.940	0.940	1.33	1.34	4.22	4.22
204.01	0.460	0.460	0.650	0.660	0.930	0.940	2.85	2.85
205.01	0.580	0.600	0.820	0.840	1.18	1.21	3.64	3.64
206.01	0.150	0.160	0.210	0.230	0.300	0.320	0.900	0.900
207.01	0.560	0.580	0.800	0.780	1.13	1.11	3.27	3.27
208.01	0.790	0.840	1.14	1.19	1.63	1.69	5.16	5.16
208.02	1.12	1.17	1.60	1.65	2.28	2.35	6.97	6.97
208.03	2.11	2.25	3.02	3.17	4.31	4.50	12.6	12.6
208.04	3.95	4.10	5.76	5.95	8.39	8.64	20.6	20.6
208.05	4.73	5.12	7.35	7.55	10.8	11.1	24.8	24.8
208.06	5.69	5.94	8.59	8.95	12.8	13.3	28.8	28.8
209.01	0.150	0.140	0.200	0.210	0.280	0.290	0.840	0.840
210.01	0.280	0.290	0.390	0.410	0.570	0.580	1.71	1.71
211.01	0.290	0.300	0.410	0.430	0.590	0.620	1.77	1.77
211.02	0.330	0.370	0.470	0.490	0.680	0.710	2.07	2.07
211.03	1.19	1.22	1.71	1.70	2.46	2.62	7.00	7.00
212.01	0.140	0.140	0.200	0.200	0.280	0.280	0.840	0.840
_junc_10	25.9	25.8	38.0	38.0	55.2	55.1	151	151
_junc_108	0.510	0.530	0.730	0.750	1.04	1.07	3.38	3.38
_junc_11	417	418	605	606	879	880	2440	2440
_junc_111	2.86	2.87	4.08	4.12	6.02	6.02	19.4	19.4
_junc_114	1.68	1.78	2.43	2.56	3.54	3.66	9.38	9.38

	5% AEP Peak Discharge (m^3/s)		1% AEP Peak Discharge (m^3/s)		0.2% AEP Peak Discharge (m^3/s)		PMF Peak Discharge (m^3/s)	
Subcatchment ID	Existing	Cumulative Future	Existing	Cumulative Future	Existing	Cumulative Future	Existing	Cumulative Future
_junc_12	13.3	13.4	18.8	19.0	26.8	26.8	75.1	75.1
_junc_13	127	127	184	184	268	268	771	771
_junc_138	8.76	8.85	12.5	12.5	18.6	18.3	78.8	78.8
_junc_14	108	108	157	157	228	228	638	638
_junc_142	7.99	6.79	9.92	9.93	14.2	14.3	60.4	60.4
_junc_143	204	205	297	296	428	428	1130	1130
_junc_15	388	389	565	565	819	819	2277	2277
_junc_16	425	426	616	617	896	896	2483	2483
_junc_165	28.5	29.0	41.0	41.5	62.3	62.1	189	189
_junc_168	26.6	26.9	39.6	39.6	55.9	56.4	179	179
_junc_17	121	121	175	175	255	255	727	727
_junc_174	19.6	21.7	28.0	30.6	40.4	43.2	148	148
_junc_18	45.3	45.5	67.7	68.0	99.7	100	268	268
_junc_181	0.080	0.080	0.110	0.120	0.160	0.160	0.530	0.530
_junc_185	0.090	0.100	0.140	0.140	0.180	0.200	0.590	0.590
_junc_186	0.280	0.300	0.400	0.420	0.570	0.600	1.76	1.76
_junc_187	2.25	2.41	3.21	3.42	4.81	4.82	13.4	13.4
_junc_19	167	167	242	242	352	352	1053	1053
_junc_193	9.54	9.53	13.5	13.5	20.1	20.1	59.4	59.4
_junc_194	13.7	13.7	19.2	19.2	28.7	28.7	85.8	85.8
_junc_199	16.4	16.5	23.4	23.6	34.1	34.1	108	108
_junc_2	196	197	284	284	409	409	1088	1088
_junc_20	140	140	202	202	294	294	860	860
_junc_204	7.26	7.27	10.5	10.5	15.2	15.2	55.8	55.8
_junc_21	151	151	219	219	318	318	950	950
_junc_22	433	434	628	629	914	914	2527	2527
_junc_228	0.470	0.490	0.670	0.690	0.960	0.990	2.83	2.83
_junc_23	439	440	636	637	926	927	2561	2561
_junc_231	177	178	258	258	376	376	1112	1112
_junc_232	21.9	21.9	32.2	32.2	46.3	46.4	198	198
_junc_233	31.1	31.2	45.5	45.5	66.8	66.8	271	271
_junc_234	422	422	600	600	876	876	2895	2895
_junc_24	26.5	26.5	37.9	37.9	54.8	54.8	167	167
_junc_25	20.3	20.4	30.7	30.7	46.3	46.3	147	147
_junc_26	18.0	18.0	25.7	25.8	37.2	37.2	110	110
_junc_263	10.4	10.5	14.8	14.8	21.5	21.5	66.5	66.5
_junc_265	10.1	10.1	14.7	14.7	21.4	21.5	60.2	60.2
_junc_27	10.8	11.0	15.7	15.6	22.7	22.7	69.2	69.2
_junc_28	475	476	688	689	1005	1005	2782	2782
_junc_29	473	474	686	686	1001	1002	2774	2774
_junc_3	17.0	17.0	25.5	25.6	37.3	37.4	97.3	97.3
_junc_30	478	478	692	693	1010	1011	2796	2796
_junc_31	13.9	14.0	19.7	19.8	29.0	29.2	126	126
_junc_32	485	485	702	702	1025	1025	2835	2835
_junc_324	426	426	607	607	886	886	2929	2929
_junc_328	495	493	704	702	1030	1027	3360	3360
_junc_329	28.4	28.4	41.8	41.8	61.1	61.1	151	151
_junc_33	13.7	13.8	18.9	19.0	28.2	28.3	107	107
_junc_330	58.7	58.8	85.1	85.2	123	123	323	323
_junc_331	1023	1023	1476	1478	2162	2164	6451	6451
_junc_34	22.0	22.0	31.2	31.2	45.3	45.3	178	178
_junc_35	7.27	7.31	10.7	10.8	15.8	15.9	55.7	55.7
_junc_36	414	414	590	590	861	861	2838	2838
_junc_37	15.7	15.8	22.7	22.7	33.0	32.9	98.2	98.2
_junc_38	12.4	12.5	17.8	17.8	26.5	25.9	116	116
_junc_39	460	458	654	652	956	953	3147	3147
_junc_4	18.0	18.1	25.9	25.9	37.2	37.3	97.1	97.1
_junc_40	22.2	22.3	32.4	32.5	47.1	47.1	144	144
_junc_41	13.6	14.4	22.3	20.4	28.2	29.2	107	107
_junc_42	25.6	25.7	37.1	37.3	54.4	54.7	244	244
_junc_43	65.4	65.4	94.1	94.5	138	139	602	602
_junc_44	431	431	614	613	896	896	2961	2961
_junc_45	385	385	549	548	802	803	2606	2606
_junc_46	33.2	33.2	47.5	47.6	69.8	69.6	205	205
_junc_47	436	436	621	620	907	907	2991	2991
_junc_48	317	317	451	451	661	661	2017	2017
_junc_49	15.1	15.6	22.2	22.2	32.8	31.8	107	107
_junc_5	15.5	15.7	22.1	22.1	32.2	32.3	96.1	96.1
_junc_50	49.0	49.0	70.2	70.4	103	103	310	310
_junc_51	310	310	441	441	646	646	1958	1958
_junc_52	55.9	56.0	80.0	80.2	117	117	365	365
_junc_53	15.4	15.5	22.1	22.2	32.6	32.7	125	125
_junc_54	77.6	77.8	111	111	164	164	514	514
_junc_55	87.6	87.8	125	125	185	185	583	583
_junc_56	284	284	405	405	593	593	1763	1763
_junc_57	117	117	170	170	246	246	754	754

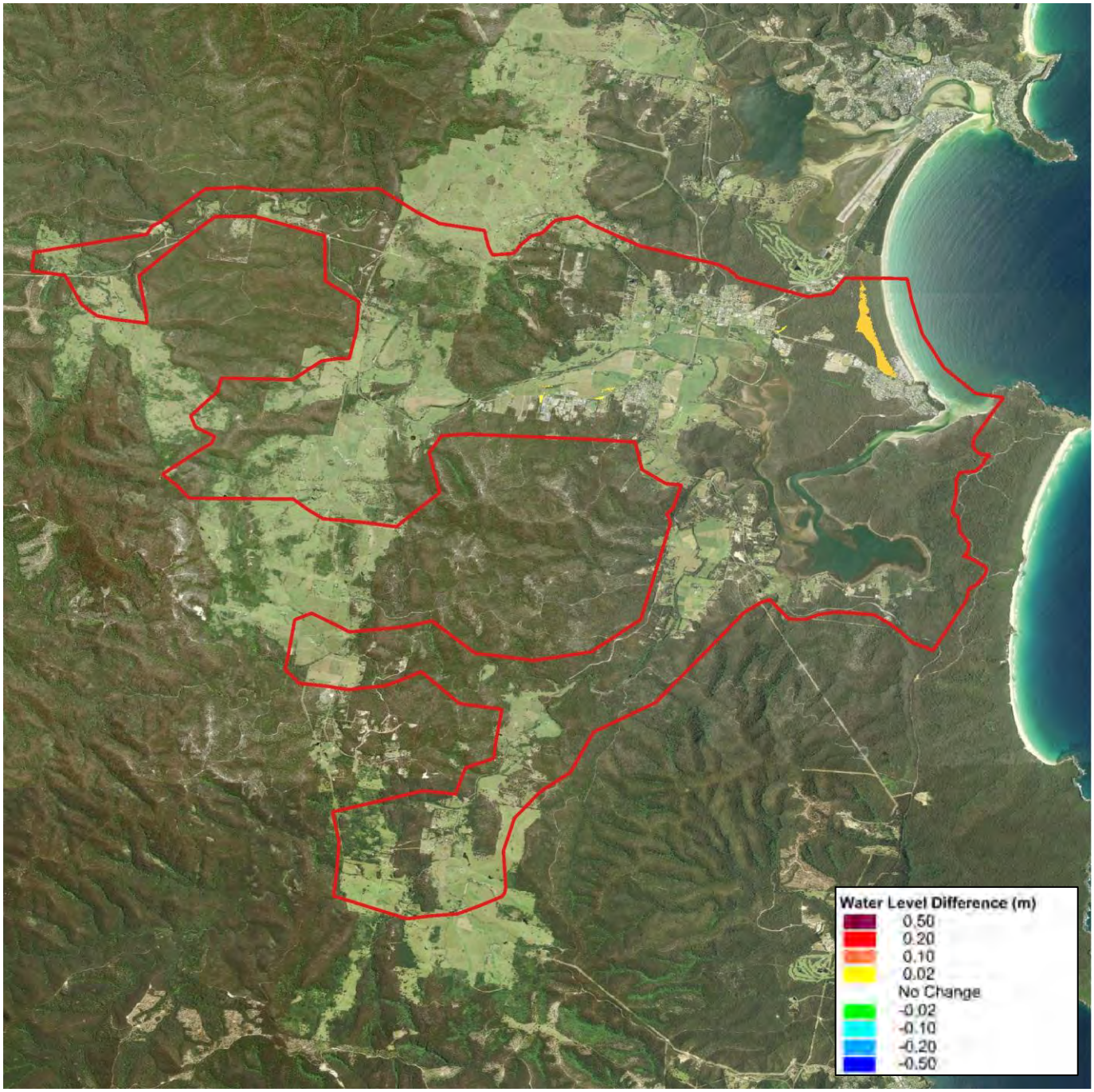
	5% AEP Peak Discharge (m^3/s)		1% AEP Peak Discharge (m^3/s)		0.2% AEP Peak Discharge (m^3/s)		PMF Peak Discharge (m^3/s)	
Subcatchment ID	Existing	Cumulative Future	Existing	Cumulative Future	Existing	Cumulative Future	Existing	Cumulative Future
_junc_58	269	269	383	384	562	563	1667	1667
_junc_59	251	251	363	363	530	532	1551	1551
_junc_6	51.2	51.4	73.0	73.3	105	106	305	305
_junc_60	262	262	374	379	548	549	1624	1624
_junc_61	24.5	24.5	35.1	35.2	51.2	51.3	144	144
_junc_62	119	119	170	170	249	249	704	704
_junc_63	106	106	151	152	221	222	623	623
_junc_64	48.4	48.5	69.0	69.0	101	101	289	289
_junc_65	13.7	13.8	19.7	19.7	28.2	28.4	90.9	90.9
_junc_66	90.4	90.5	129	130	189	189	523	523
_junc_67	54.2	54.3	77.4	77.4	113	113	323	323
_junc_68	38.5	38.6	54.8	54.8	81.5	81.6	231	231
_junc_69	28.9	29.0	47.0	47.0	59.5	59.5	171	171
_junc_7	59.0	59.2	84.0	84.2	121	121	358	358
_junc_70	22.1	22.1	35.8	35.9	45.4	45.5	131	131
_junc_71	18.4	18.4	27.1	27.2	40.1	40.2	94.1	94.1
_junc_72	33.0	33.1	47.3	47.5	69.2	69.3	177	177
_junc_73	15.6	15.6	22.3	22.3	32.7	32.8	91.9	91.9
_junc_74	10.2	10.2	14.7	14.7	21.3	21.3	62.6	62.6
_junc_75	32.3	31.8	47.5	47.7	71.1	71.2	150	150
_junc_76	12.9	13.0	18.5	18.6	26.6	26.5	70.7	70.7
_junc_77	31.5	31.6	45.0	52.0	64.9	65.1	178	178
_junc_78	39.0	39.1	64.2	64.3	80.4	80.3	223	223
_junc_79	44.9	45.0	73.1	73.2	91.9	92.1	259	259
_junc_8	26.5	22.6	32.0	32.1	46.9	47.1	141	141
_junc_80	21.2	18.0	25.4	25.5	37.5	37.6	106	106
_junc_81	84.6	84.8	123	123	177	177	446	446
_junc_82	19.3	19.4	27.6	27.7	40.0	40.1	111	111
_junc_83	15.6	15.7	22.1	22.1	32.2	32.4	81.8	81.8
_junc_84	104	104	151	151	217	218	557	557
_junc_85	21.0	21.0	30.2	30.3	43.2	43.3	115	115
_junc_86	129	129	187	187	268	269	708	708
_junc_87	45.3	45.3	65.0	65.1	94.2	94.4	255	255
_junc_88	49.4	49.5	70.9	71.0	103	103	282	282
_junc_89	118	118	171	172	246	246	644	644
_junc_9	30.2	30.3	42.8	42.8	61.8	62.0	186	186
_junc_90	190	190	275	275	395	396	1043	1043
_junc_91	12.6	12.6	19.0	19.0	27.7	27.9	69.6	69.6

Cumulative Development

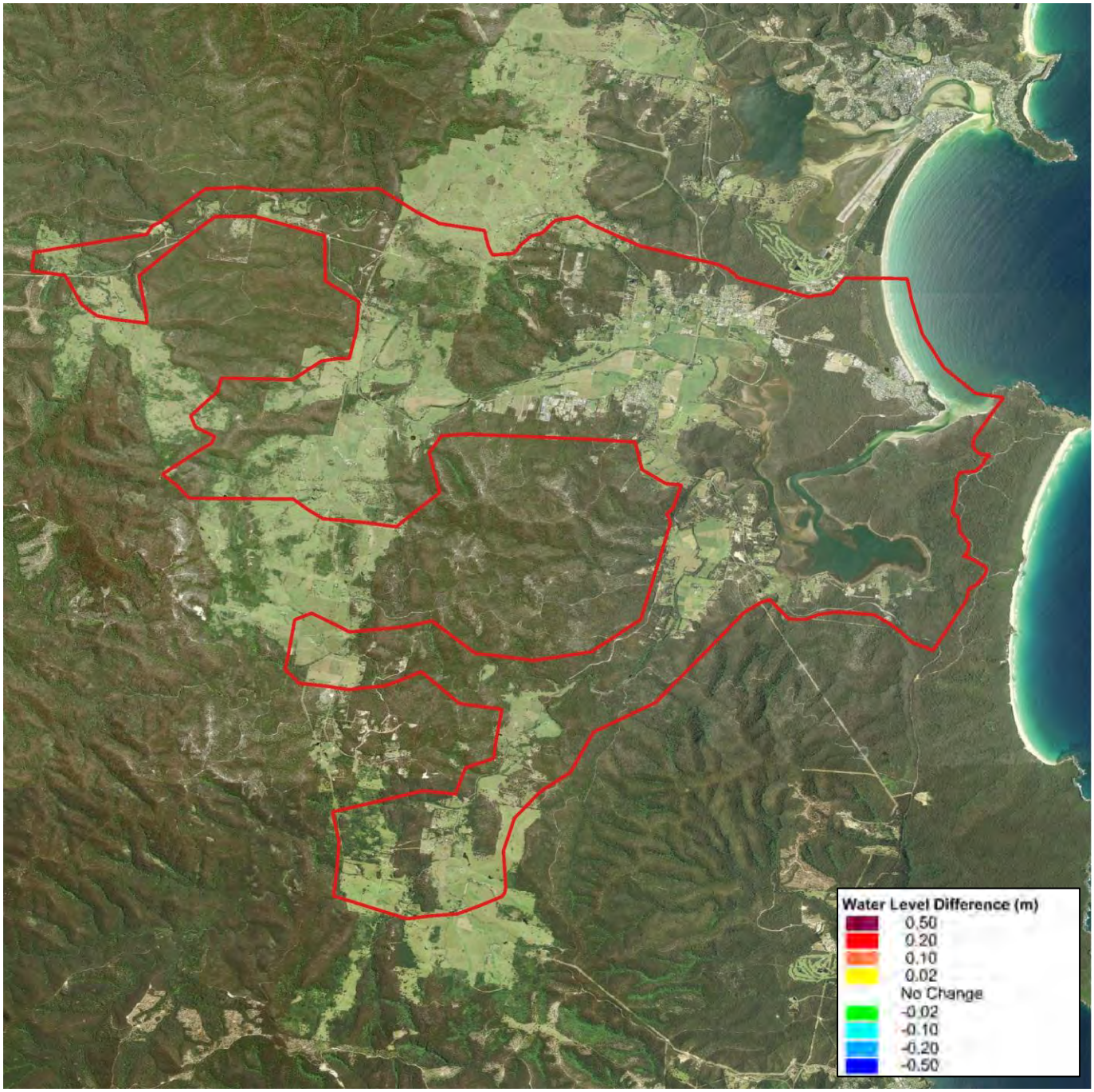
5% AEP



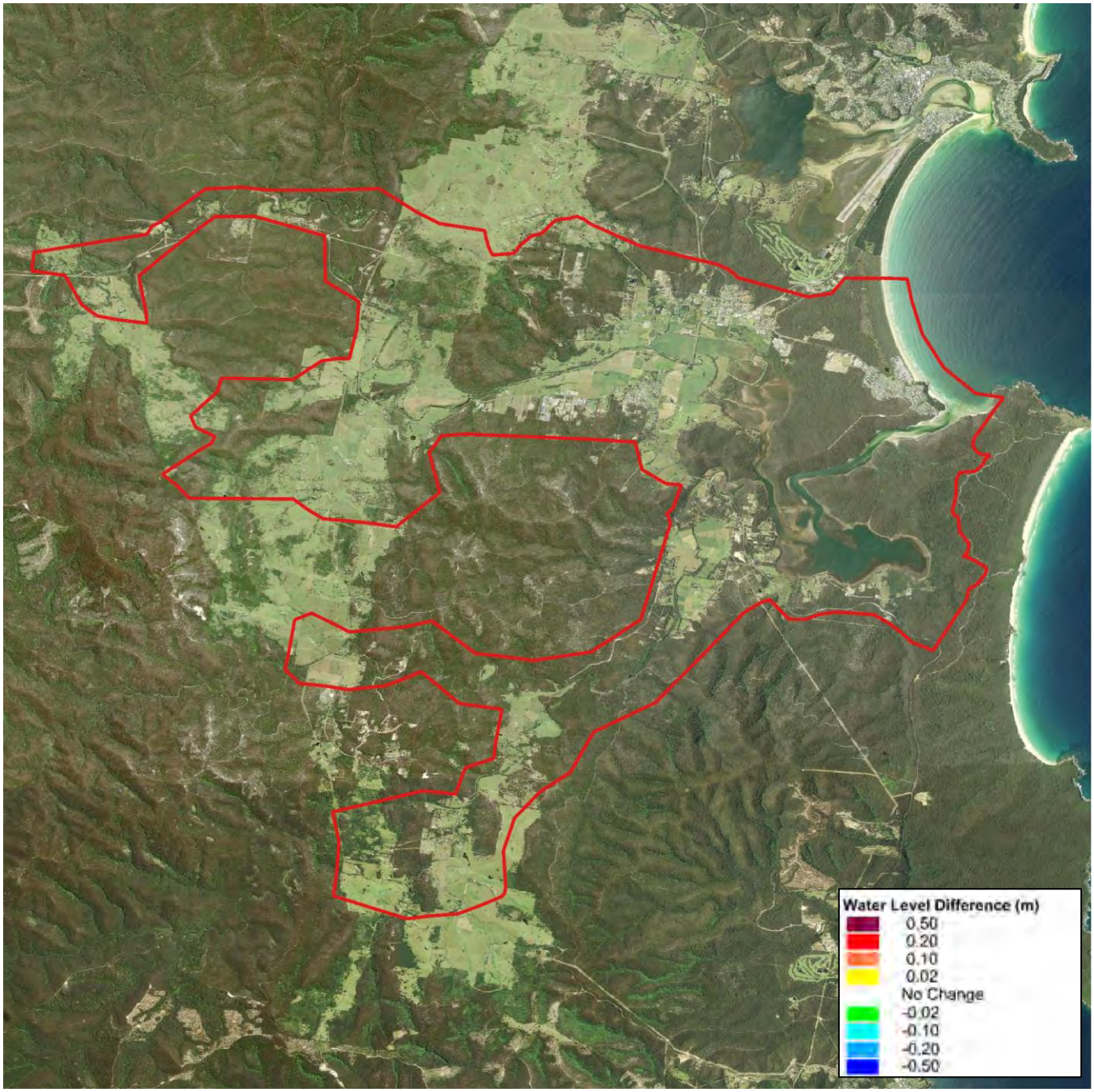
1% AEP


Water Level Difference (m)
0.50
0.20
0.10
0.02
No Change
-0.02
-0.10
-0.20
-0.50

0.2% AEP

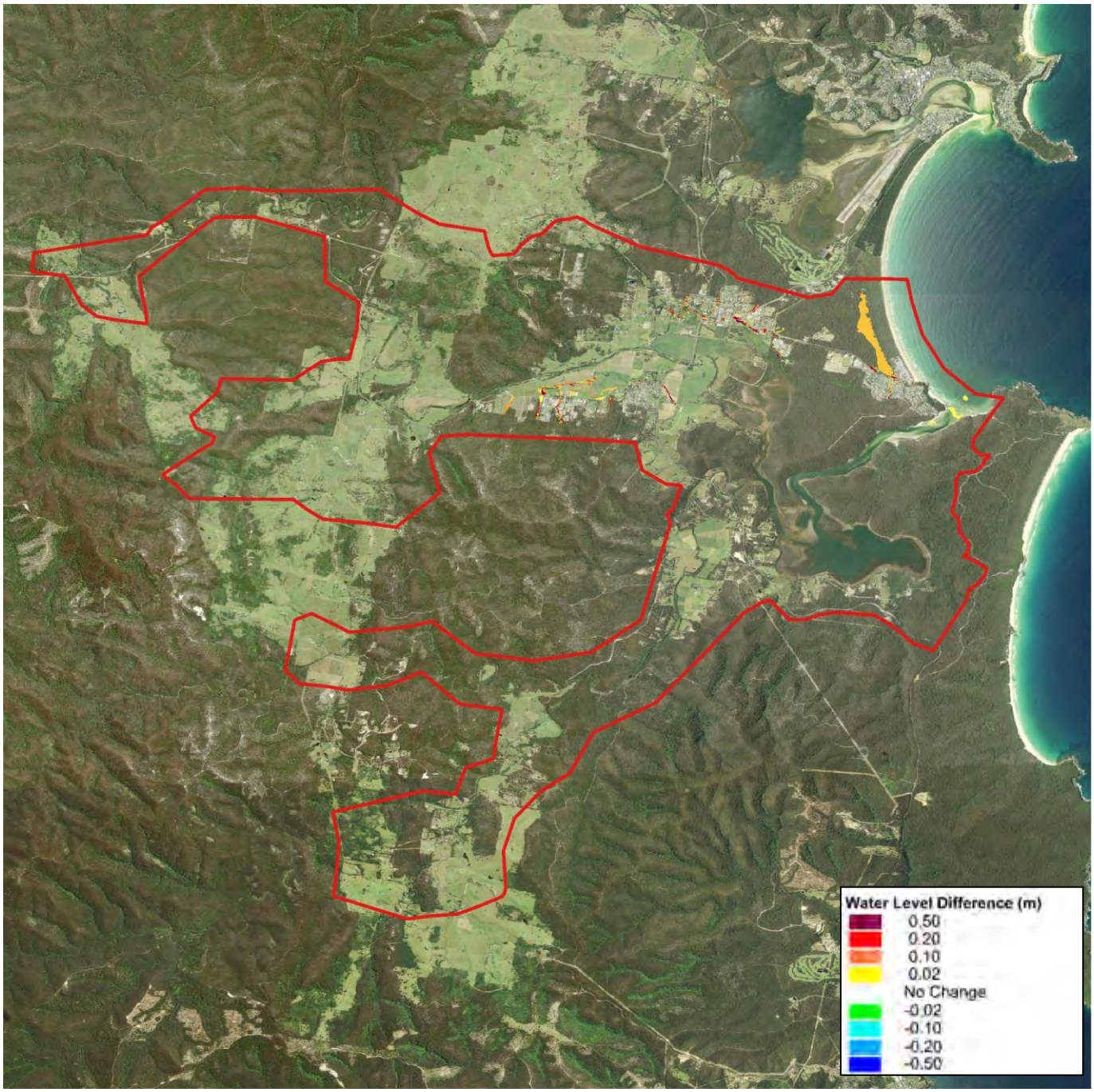

Water Level Difference (m)
0.50
0.20
0.10
0.02
No Change
-0.02
-0.10
-0.20
-0.50

PMF

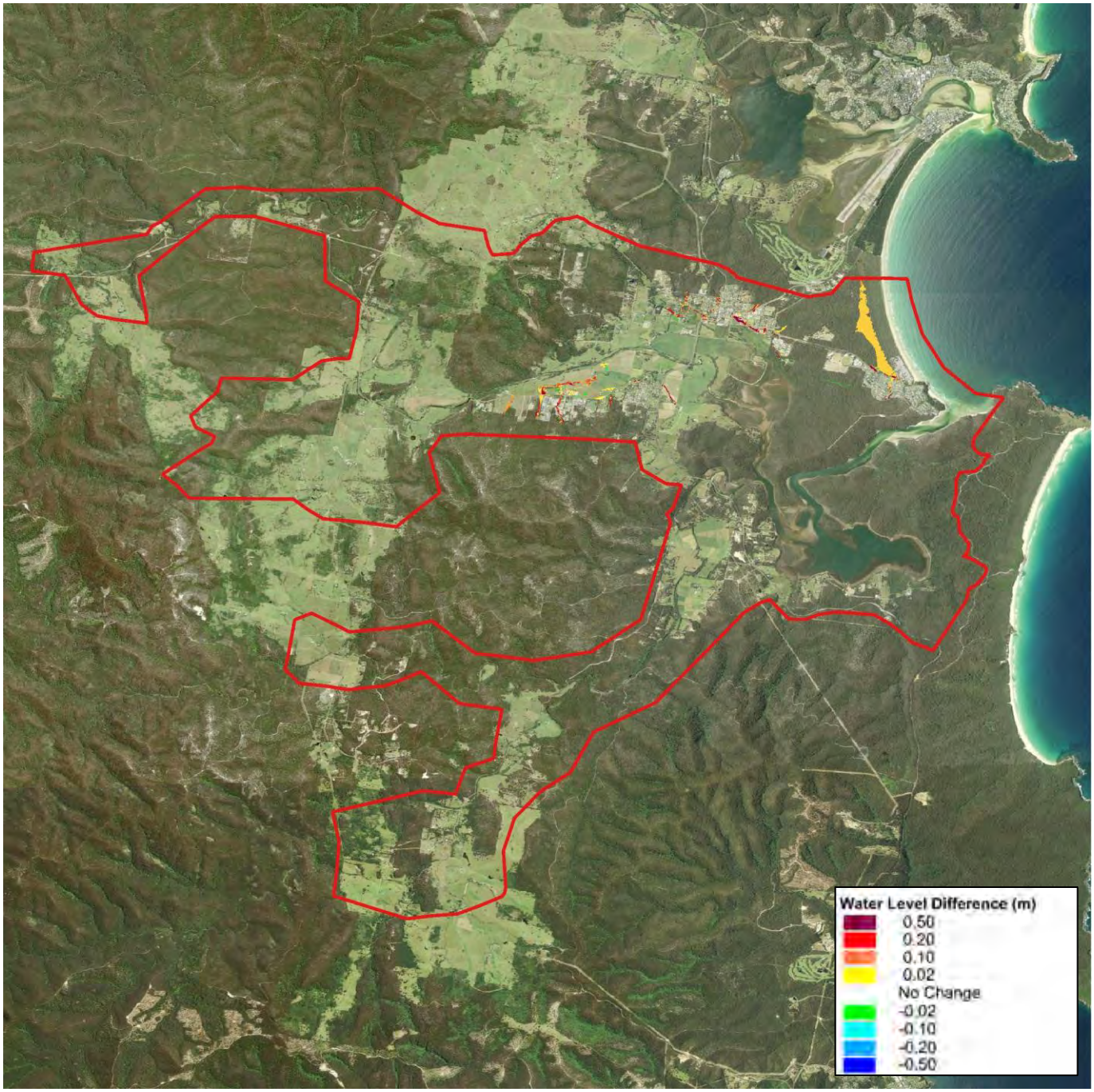

Water Level Difference (m)
0.50
0.20
0.10
0.02
No Change
-0.02
-0.10
-0.20
-0.50

Cumulative Development with Fill

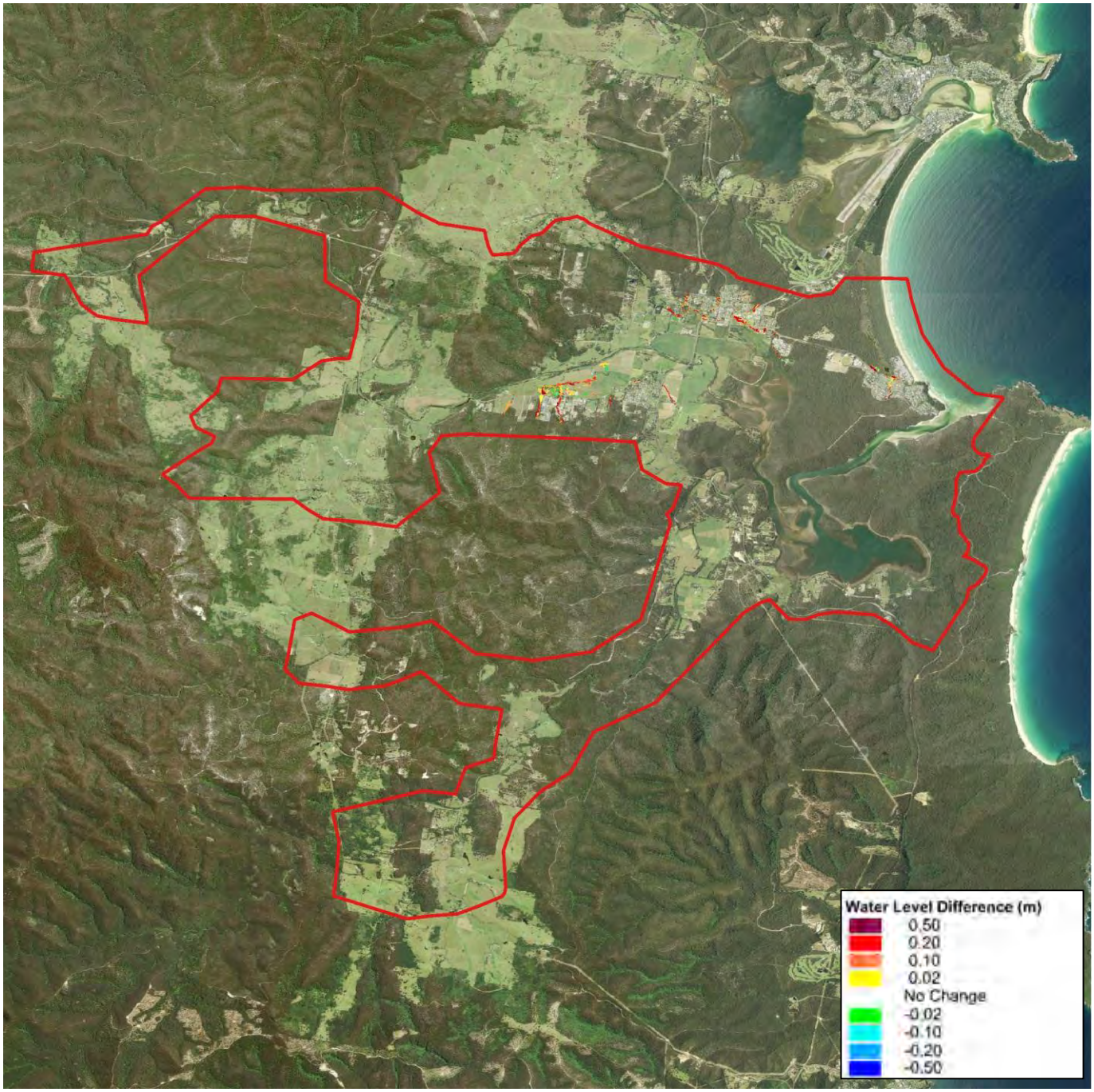
5% AEP



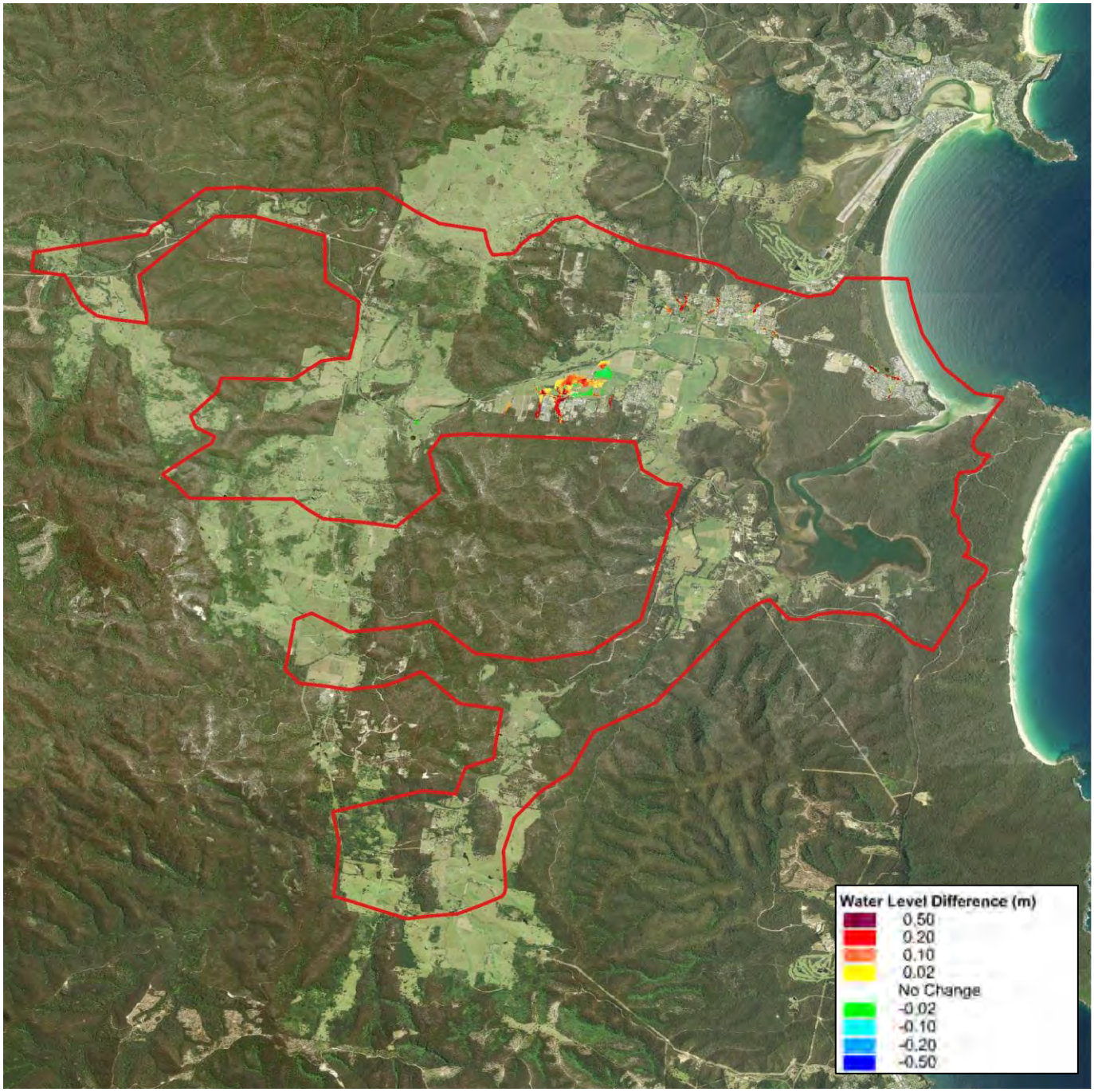
1% AEP


Water Level Difference (m)
0.50
0.20
0.10
0.02
No Change
-0.02
-0.10
-0.20
-0.50

0.2% AEP


Water Level Difference (m)
0.50
0.20
0.10
0.02
No Change
-0.02
-0.10
-0.20
-0.50

PMF


Water Level Difference (m)
0.50
0.20
0.10
0.02
No Change
-0.02
-0.10
-0.20
-0.50

APPENDIX O
PUBLIC EXHIBITION SUBMISSIONS

Comment	Response
Submission #1	
During the last heavy rain event in March 2021 and on a number of previous occasions, this low-level causeway in Lochview Farm Rd has been significantly overtopped by the swiftly flowing unnamed water course and became impassable for a long period of time - effectively trapping all the residents of Lochview Farm Rd and Limousin Drive who were without any other safe public road access to Mt Darragh Rd.	The flood modelling completed as part of the Pambula River, Yowaka River and Pambula Lake Flood Study confirm that Lochview Farm Road is overtopped during floods as frequent as the 10% AEP event (the smallest flood that was simulated as part of the study). The results from the modelling also confirmed that the causeway would remain submerged for at least 10 hours during each simulated flood. The flood study report will be updated to discuss the flood affectation of this specific road and help to inform the future floodplain risk management study where emergency response options (such as upgrades of Lochview Farm Road and other key access routes) can be explored. Potential emergency management operational issues were referred to both local Eden SES and Regional SES Community Planning Operations for assessment. Local SES had no records pre-dating October 2014 (when assistance tasking records began) for requests for assistance at this location. The lack of assistance requests in this area indicated the local community has self-managed isolation issues in the interim. Regional SES Community Planning had nothing further to add to the Local SES comments.
It is recognised & understood that any future development approved by Council of any further rural residential land off land located near Lochview Farm Rd would (in part) require that the developer upgrade Lochview Farm Rd to Council's current subdivision road standard - but to avoid current and any increased number of future residents of this area being trapped and not having any safe public road access to Mt Darragh Rd, it is essential that Council impose a Planning requirement for future development of this area to also require that the current low level flood effected causeway is upgraded by that developer to an all-weather safe access to Mt Darragh Rd.	The Bega Valley Development Control Plan 2013 (DCP) currently requires flood free access to new residential development which could include all existing flood effected causeways, effectively triggering the upgrade requirement in order to satisfy the requirement of the DCP. As such, any development assessment for residential development would be required to ensure flood free access is available. That does not necessarily mean flood free in all events (for example driveway access designed to 5% AEP has been used, whereas habitable buildings need to be above 1% AEP). The flood study has helped to highlight limitations in the existing road network (including Lochview Farm Road). Therefore, the information produced as part of the flood study will help to inform access requirements for future residential developments with access difficulties. The potential benefits of road upgrades can also likely be explored as part of a future floodplain risk

Comment	Response
	management study (FRMS) for the catchment. The FRMS will examine and document the benefits to both the existing and future communities from potential proposed road upgrades.
We would hope that Council would not approve any future development of this area without imposing such a planning requirement and would not put people's safety at risk by not requiring such an all-weather safe access from Lochview Farm Rd to Mt Darragh Road.	As outlined above, any future residential development would be required to comply with the access requirements set out Council's DCP 2013.
I would appreciate a reply from Council confirming that such a planning requirement for an all-weather safe access from Lochview Farm Rd to Mt Darragh Road will be a requirement of any Council approved future rural residential development for the area.	Council provided a formal letter reply to this submission following the public exhibition period.
Submission #2	
I am wondering whether it would be possible to arrange for at least one of the sessions to be made available online via the Zoom platform. As a resident of Melbourne it is not possible for me to attend the Pambula town hall on any occasion and the availability of technology, especially during the coronavirus pandemic, has highlighted the importance of engaging technology as a substitute for personal attendance. I note that at present no such facility is contemplated and am wondering if it would be possible to make the necessary arrangement.	An online meeting was arranged for the 28/4/2021 consultation session where the resident attended. An additional online meeting was arranged 4/5/2021 following popular demand from call centre contact during the exhibition period but no residents attended.
I have reviewed the draft report on the 'Pambula River, Pambula Lake and Yowaka River Flood Study' and could find no reference to potential impacts on Quondolo St Pambula. In addition to the draft report there are several map studies provided on the website but none of them provide any indication of their topic and without downloading and studying each of them it is not possible for me to determine their relevance to my property.	As a study that focussed on defining flood behaviour across the full extent of a large catchment, it is difficult to provide information at the individual, lot scale. Notwithstanding, as part of subsequent emails, Council, DPIE and CSS provided the resident with more detailed information concerning the impacts of flooding on the subject land. This showed water travelling along a drainage depression at the rear of the property. Therefore, any future development of the lot would be subject to controls to ensure the development itself is constructed in a way that would ensure it is not impacted by frequent flooding and

Comment	Response
I have consulted the FAQ section of the relevant website in particular "Where can I get information about flood levels on my property" and the hot link to further information but this did not provide the necessary information and I was unable to pursue the matter through the materials provided on the website. I am wondering whether you could let me know whether my property is under consideration of impact from flooding based on the scenario modelling.	that the development does not increase the flooding across adjoining properties
Submission #3	
A formal, written submission from the resident was not received as part of the public exhibition of the draft flood study report. However, the project team felt it significant to include the resident's comments in the submissions. Therefore, the following is paraphrased from discussions with the resident at the community workshop on 28/04/2021 and a previous telephone conversation dated 8/4/2021:	-
The Princes Highway affords a significant barrier to flow. There is a 0.5 metre difference in water level across the highway. The quantity of water travelling along the river and floodplain cannot it into the existing culverts. As a result, water levels on the western side of the highway are higher now than in the past	The results of the flood modelling completed as part of the flood study confirm these observations. More specifically, the flood level contours illustrate a 0.5 metre head loss across the highway. The results of the flood study have also highlighted the susceptibility of this important road to overtopping. Therefore, it will be a focus of any future floodplain risk management study where options will be investigated for improving the situation. This may include options such as bridge and culvert upgrades for the highway.
The 1994 event was larger than the 1971 event	A review of the historic records for the Lochiel stream gauge showed that the 1971 flood produced a peak flow rate of 556 m^3/s for the Pambula River at Lochiel. The gauge records show minimal large flows in 1994 (i.e., no discharges above 50m^3/s). However, a large event did occur in February 1992. This produced a peak discharge of 645 m^3/s at the Lochiel gauge which is nearly 100 m^3/s higher than the peak discharge during the 1971 flood.