SUPPLEMENTARY DATA FOR "BEDROCK BENCHES AND BOULDER BARS: FLOODS IN THE BURDEKIN GORGE OF AUSTRALIA"

Flow variables at 5,000, 15,000, and 30,000 m^3s^{-1} discharges.

BURDEKIN REACH 1, 30,000 m^3s^{-1}

Cross Section Number	Mean Channel Velocity ($m\ s^{-1}$)	Mean Flow Depth (m)	Water-Surface Elev. (m)	Bed Shear Stress ($N\ m^2$)	Stream Power ($W\ m^{-2}$)	Energy Slope[1]	Elev. of PSI (m)	Cross-Sectional Flow Area (m^2)
1	5.0	19.5	100.0	136	581	7.4	100.0	6037
2	5.1	19.8	100.3	130	540	6.9	96.5	5892
3	5.0	19.6	100.6	154	693	8.3	99.5	6002
4	6.7	19.4	99.8	237	1312	13.5	90.0	4423
5	4.5	19.8	101.2	110	413	5.9	93.5	6669

BURDEKIN REACH 2, 30,000 m^3s^{-1}

Cross Section Number	Mean Channel Velocity ($m\ s^{-1}$)	Mean Flow Depth (m)	Water-Surface Elev. (m)	Bed Shear Stress ($N\ m^2$)	Stream Power ($W\ m^{-2}$)	Energy Slope	Elev. of PSI (m)	Cross-Sectional Flow Area (m^2)
1	7.1	9.5	100.0	546	5936	69.4	99.5	4233
2	8.5	16.3	101.3	443	4837	31.4	102.0	3534
3	8.2	18.7	105.0	631	8248	41.9	101.5	3624
4	8.7	20.8	108.3	551	6968	30.6	106.5	3420
5	6.5	29.6	112.1	305	2850	14.1	112.0	4577
6	4.6	21.5	113.7	129	800	6.7	112.0	6512

[1] slope is 10^{-4}

BURDEKIN REACH 3, 30,000 m^3s^{-1}

Cross Section Number	Mean Channel Velocity ($m\ s^{-1}$)	Mean Flow Depth (m)	Water-Surface Elev. (m)	Bed Shear Stress ($N\ m^{-2}$)	Stream Power ($W\ m^{-2}$)	Energy Slope	Elev. of PSI (m)	Cross-Sectional Flow Area (m^2)
1	4.2	25.8	110.0	144	990	5.8	108.5	7138
2	4.5	25.0	110.0	182	1376	7.7	102.0	6595
3	3.2	25.3	110.8	72	349	3.0	103.0	9180
4	6.8	17.3	111.5	632	8294	40.1	112.5	4415
5	10.0	23.7	112.5	574	7436	27.2	112.0	3003
6	9.8	24.4	117.1	641	8898	28.2	118.0	3061
7	9.2	44.1	118.8	651	7794	18.4	113.0	3264
8	6.2	26.5	122.7	247	2192	10.0	114.0	4880
9	3.5	26.7	124.5	78	397	3.1	109.0	8522
10	4.1	26.3	124.3	107	634	4.4	117.0	7254
11	4.0	37.8	124.4	176	1184	5.0	121.0	7568
12	5.4	36.2	123.4	291	2588	9.6	117.0	5553

BURDEKIN REACH 1, 15,000 m^3s^{-1}

1	3.8	14.5	95.0	87	282	6.4		3940
2	3.7	14.9	95.4	79	246	5.7		4013
3	3.6	14.6	95.6	95	317	6.9		4126
4	4.7	15.0	95.4	135	535	10.2		3165
5	3.3	14.6	96.0	69	196	5.2		4519

BURDEKIN REACH 2, 15,000 m^3s^{-1}

1	5.9	6.9	97.5	418	3731	77.9		2533
2	7.4	11.8	96.9	332	2954	34.1		2025
3	6.6	14.8	101.1	445	4648	39.6		2278
4	7.4	15.8	103.3	396	4032	30.2		2036
5	5.2	24.0	106.5	203	1474	12.6		2862
6	4.0	15.2	107.4	99	502	7.5		3712

BURDEKIN REACH 3, 15,000 m^3s^{-1}

1	4.8	15.8	100.0	218	1693	14.7	3156
2	6.5	14.2	99.2	447	4793	34.3	2304
3	2.9	16.6	102.2	67	291	4.2	5214
4	5.5	14.0	108.2	454	4860	36.2	2706
5	8.8	17.2	106.0	432	4571	29.3	1703
6	8.2	18.2	111.0	446	4908	26.7	1829
7	6.1	38.9	113.6	285	2193	9.4	2440
8	5.2	18.5	114.7	197	1472	11.7	2878
9	2.9	18.3	116.2	65	278	3.8	5055
10	3.8	18.0	115.9	94	490	5.8	3932
11	3.9	29.1	115.6	187	1237	7.0	3867
12	5.1	27.6	114.8	310	2696	14.3	2956

BURDEKIN REACH 1, 5,000 m^3s^{-1}

1	3.3	9.8	94.0	174	1108	19.4	1506
2	6.1	8.7	93.7	333	2826	43.3	821
3	1.9	10.8	96.4	32	91	3.2	2644
4	4.1	10.2	104.5	269	2094	30.4	1212
5	3.1	16.8	105.6	52	191	3.6	1627
6	8.6	9.8	102.5	365	3245	43.5	584
7	3.6	31.0	105.8	83	326	3.6	1402
8	6.2	8.8	105.0	290	2282	39.5	811
9	3.2	9.4	107.2	79	335	10.0	1549
10	3.5	9.6	107.5	80	339	9.8	1429
11	4.1	20.8	107.3	116	567	6.3	1208
12	7.2	18.4	105.6	390	3480	30.9	699

BURDEKIN REACH 2, 5,000 m^3s^{-1}

1	4.2	4.5	95.0	255	1606	86.1	1178
2	2.9	10.8	95.8	52	177	5.9	1702
3	4.9	10.6	96.9	265	1987	37.0	1012
4	6.4	9.9	97.4	269	2049	36.7	775
5	3.9	17.6	100.2	111	547	11.1	1279
6	3.4	8.3	100.5	77	305	11.9	1483

BURDEKIN REACH 3, 5,000 m^3s^{-1}

1	4.7	5.5	86.0	210	888	44.0	1055
2	3.3	7.3	87.8	90	262	13.7	1508
3	3.0	7.4	88.3	88	253	13.5	1670
4	4.0	8.2	88.6	144	526	22.0	1250
5	2.6	7.7	89.0	61	145	9.4	1868