

Appendix A. Historic Rainfall and Flood Data

Figure A-1 Cumulative Rainfall for the Storm event of March 2001 and Preceding Period

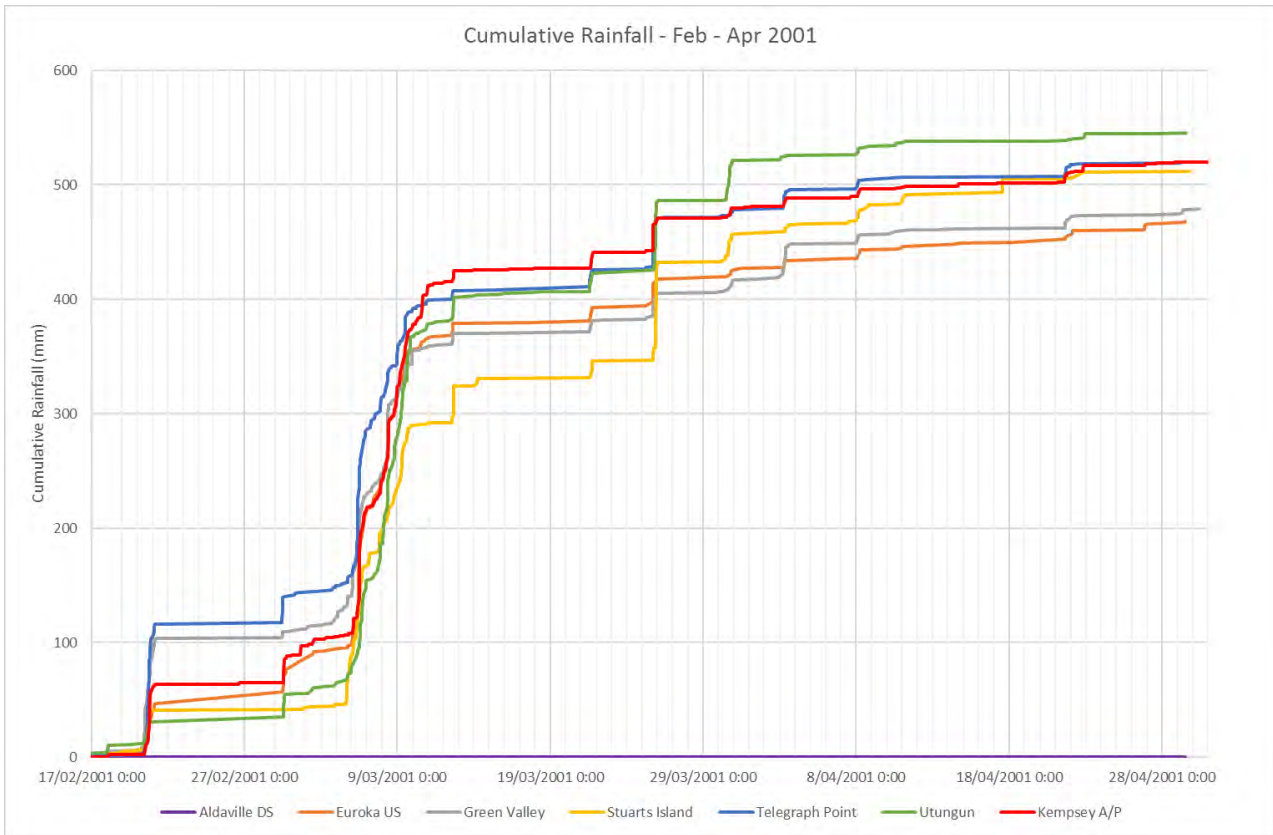


Figure A-2 Cumulative Rainfall for the Storm event of February 2013 and Preceding Period

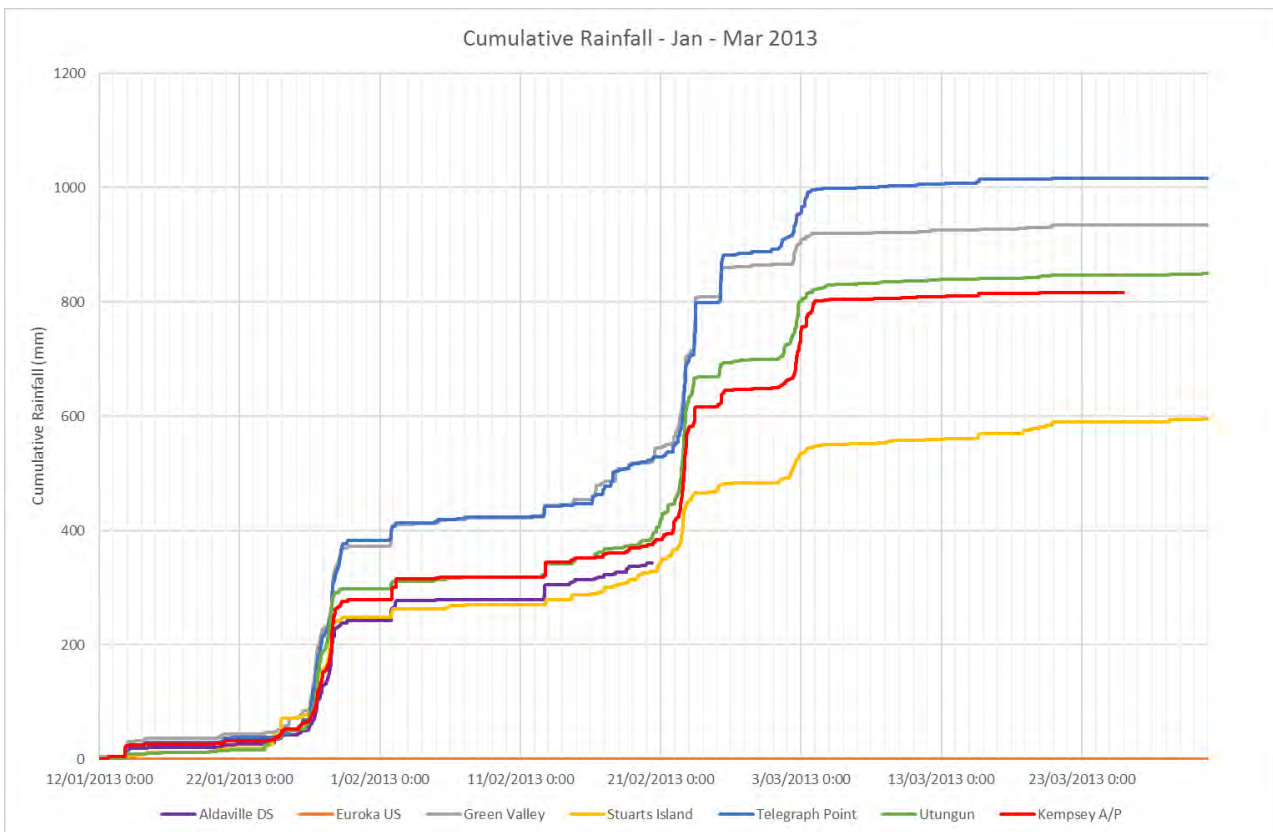


Table A-1 Kempsey Shire Council Flood Records (Downstream of Aldavilla shown. Wollomombi to Aldavilla not shown)

Event	Eden St levee	KTB Telem	Time.Diff Tur-Kem	Time.Diff Geo-Kem	KTB Gauge	Glenrock	3rd Lane	Fredo	7 Oaks	Belmore Entr	Smithtown	Kinchela Entr	Plummers L	Rainbow Reach	Jerseyville
Aug-49					8.45				5.1			3.9	3.7	3.1	3.35
May-63					7.67				5.2			3.9	3.5	2.7	2.74
Feb-97		5 9:00p, (16th)													
Mar-01	(7.4mAHD)	(7.2mAHD) 7.4 10:00pm (10th)	3h & 15m			(6.8mAHD)			2.82 (4.8) noon(10th)	3.3 (4.5) 1:00pm (12th)		3.44 (2.79) 10:00pm (12th)	2.75	2	2.1
Jan-08		2.19 6:45am (7th)													
May-08					3.17				1.34	2.4					
Feb-09															
Peak Level		5.98					5.35	4.94		3.85		3.14			
Peak Time		2:14am (18th)	2h & 20m							1:26am (18th)		2:52am (18th)			
Apr-09															
Peak Level		5.79					5.24	4.86		3.8		3.1			
Peak Time		6:53pm (2nd)	5h & 25m							5:24pm (3rd)		4:43pm (3rd)			
May-09															
Peak Level	7.38	7.23			6.9		6.39	5.74		4.42		3.54			
Peak Time		10:22pm (23rd)	4h & 52m							22:43 (23rd)		11:04pm (23rd)			
Nov-10															
Peak Level		1.67								0.98		1.47	0.95	0.83	1.11
Peak Time		10:46am (19th)	8h & 23m							9:12am (19th)		8:46am (19th)	8:06am (19th)	7:49am (19th)	7:48am (19th)
Jan-11															
Peak Level		5.18							3.83	3.36		3.26		1.06	1.69
Peak Time		4:44am (12th)							2:46pm (12th)	7:45am (12th)		7:34am (12th)		1:59pm (12th)	5:26am (12th)
Jun-11															
Peak Level	7.002	7.08			6.7	6.66	6.28	5.72	5.17	4.38	4.21	3.85	2.45	1.64	2.21
Peak Time		11:41pm (15th)					10:00pm (15th)	3:15am (16th)	1:47am (16th)	10:03pm (15th)	4:30am (16th)	10:24am (15th)	9:55pm (16th)	9:09pm (15th)	8:20am (15th)
Nov-11															
1st Peak Level		3.679													
1st Peak Time		11:04am (26th)													
2nd Peak Level		5.29					4.85	NO DATA	4.17	3.48	3.44	1.33	1.96	1.34	1.84
2nd Peak Time		11:11pm (27th)					00:00 (28th)		1:46am (28th)	00:53 (28th)	00:45am (28th)	1:15am (28th)	00:58am (28th)	11:02am (27th)	11:18am (27th)

Event	Eden St levee	KTB Telem	Time.Diff Tur-Kem	Time.Diff Geo-Kem	KTB Guage	Glenrock	3rd Lane	Fredo	7 Oaks	Belmore E	Smithtown	Kinchela E	Plummers L	Rainbow Rea	Jerseyville
Jan-12															
1st Peak Level															
1st Peak Time															
2nd Peak Level		5.67			5.6		5.1	4.94	4.45	3.7		1.48	2.09		2.01
2nd Peak Time		7:54pm(26th)					6:30pm(26th)	7:00pm(26th)	0:56am(27th)	1:15am(27th)		2:35am(27th)	1:39am(27th)		1:22pm(26th)
Feb-12															
Peak Level		4.06													
Peak Time		10:51am(3rd)													
Jan-13															
Peak Level		4.47								3.27		1:15			
Peak Time		20:44 (29th)								1:12 (30th)		23:59 (29th)			
Feb-13															
Peak Level		7.12			6.94					4.51		1.62			
Peak Time	7.39m	6:07 (24th)								4:01 (24th)		22:09 (23rd)		0.65	
Mar-13															
Peak Level		5.95			5.8		5.36	5.21		4.08		1.52			
Peak Time		18:48 (3rd)					5:00 AEST (4th)	5:15 AEST (4th)		3:41 (4th)		4:46 (4th)			

Table A-2 Kempsey Shire Council Flood Gate Management. No information available pre-2009

Event	Belmore Floodgate	Belmore Flood Control Structure	Water level KTB	Kinchela Floodgates	Kinchela flood Control LBR	Kinchela Flood Control RBR	Water level KTB	Euroka Ck	Christmas Ck
Feb-09		Partial opening 10:30pm (17th)	5.80m		Partial opening 11:00pm (17th)	Partial opening 11:00pm (17th)	5.96m		
		Closed 11:00pm (17th)			Fully opened 1:30am (18th)	Fully opened 1:30am (18th)			
		Re-opened 12:45am (18th)			Commenced closing 8:03am	Commenced closing 8:03am			
		Started closing 6:30am (18th)			Fully Closed 5:00pm	Fully Closed 5:00pm			
		Fully Closed 2:15pm (18th)							
Apr-09		Partial opening 3:30pm (2nd)	5.70m		Commenced opening 3:00pm	Commenced opening 3:00pm	5.76m		
		Commenced closing 2:45am			Commenced closing 12:00	Commenced closing 12:00			
		Fully closed 4:00am			Fully closed 8:45am	Fully closed 7:45am			
May-09		Commenced opening 10:45pm (21st)	6.01m		Commenced opening 11:00pm (21st)	Commenced opening 11:00pm (21st)	6.01m		
		Fully closed 6:00am (25th)			Fully closed 4:30pm (25th)	Fully closed 4:30pm (25th)			
Jun-11	Closed 1:00pm 3rd Jun	Commence opening 9:30pm (14th)	5.55m (T) 5.20m (Observ)	Closed 1:00pm 3rd Jun	Commence opening 9:30pm (14th)	Commence opening 9:30pm (14th)	5.55m (T) 5.20m (Observ)	Closed 1:00pm 3rd Jun	Closed 1:00pm 3rd Jun
		Opening completed 12:00pm (14th)			Opening completed 12:00pm (14th)	Opening completed 12:00pm (14th)			
		Commenced closing 10:00am (17th)	5.60m (T) 5.26m (Observ)		Commenced closing 10:00am (17th)	Commenced closing 10:00am (17th)	5.60m (T) 5.26m (Observ)		
		Fully closed 4:30pm (17th)			Fully closed 4:30pm (17th)	Fully closed 4:30pm (17th)		Opened 4th Jul	Opened 4th Jul
		Opened (20th)			Opened (20th)	Opened (20th)			
Nov-11									
Jan-12		Commenced opening 12:38	3.59m (T)						
Feb-13	Closed 11:15 22nd Feb	Opened fully 9:00am 23rd	6.14m (T)	Closed 11:15 22nd Feb	20% Opened 23rd Feb				
		Closed 12:10pm 25th	4.77m (T)		Fully Opened 6:15pm 24th Feb				
					Closed 25th Feb 11:15pm				
Mar-13	Remained closed	Commenced Opening 11:30 (3rd)	5.59m (T)		Fully Opened 12:15pm (3rd)	Fully Opened 1:00pm (3rd)	5.68m (T)		
		Fully opened 1:20pm (3rd)			Fully Closed 9:30am (5th)	Fully Closed 9:30am (5th)			
		Fully Closed 9:30am (5th)							