APPENDIX D

Isohyets from 1993 rainfall simulations on Ripped Plots 1 to 6

TABLE Bvi - RIPPED PLOT 6

SUBPLOT	WIDTH m	LENGTH m	AREA m^2	SLOPE	SLOPE* LENGTH	Cr = 1/W^(2/3
1	4.85	0.54	2.61	0.19	0.1	0.35
2	4.85	2.31	11.21	0.00	0	0.35
3	4.85	2.23	15.66	0.00	0	0.35
4	4.85	0.95	4.61	-0.11	-0.1	0.35
5	4.85	1.78	8.65	0.06	0.1	0.35
6	4.85	1.34	6.49	. 0.07	0.1	0.35
7	4.85	1.73	8.33	0.12	0.2	0.35
8	4.85	2.4	11.73	0.04	0.1	0.35
9	4.85	2.16	10.52	0.05	0.1	0.35
	AREA OF PLOT :		79.81			

AVERAGE RAINFALL IN SUBPLOT:

	Average Rainfall (mm) and Rain Weighting (Average Rainfall/tipping bucket rainfall)											
	RUN1		RUN2		RUN3		RUN4		RUN5		RUN6		RUN7	
SUBPLOT:	Rain	Weighting	Rain	Weighting	Rain	Weighting	Rain	Weighting	Rain	Weighting	Rain	Weighting	Rain	Weighting
1	55.00	1.15	105.00	1.30	100.00	1.12	90.00	1.33	95.00	1.27	44.00	0.91	85.00	1.13
2	55.00	1.15	105.00	1.30	100.00	1.12	90.00	1.33	100.00	1.34	48.00	0.99	90.00	1.19
3	55.00	1.15	95.00	1.18	100.00	1.12	90.00	1.33	90.00	1.21	52.00	1.07	95.00	1.26
4	55.00	1.15	85.00	1.05	100.00	1.12	85.00	1.25	80.00	1.07	52.00	1.07	90.00	1.19
5	55.00	1.15	90.00	1.11	95.00	1.07	80.00	1.18	95.00	1.27	52.00	1.07	90.00	1.19
6	60.00	1.26	90.00	1.11	85.00	0.95	85.00	1.25	105.00	1.41	54.00	1.11	100.00	1.33
7	60.00	1.26	85.00	1.05	95.00	1.07	85.00	1.25	105.00	1.41	56.00	1.15	105.00	1.39
8	65.00	1.36	95.00	1.18	115.00	1.29	95.00	1.40	105.00	1.41	62.00	1.28	105.00	1.39
9	60.00	1.26	100.00	1.24	125.00	1.40	105.00	1.55	105.00	1.41	62.00	1.28	105.00	1.39
Av.rainfall onplot(mm	58		94		102		89		98		54		96	
Tipping Bucket:	48		81		89		68		75		49		75	

TABLE Bv - RIPPED PLOT 5

SUBPLOT	WIDTH m	LENGTH m	AREA m^2	SLOPE	SLOPE* LENGTH	Cr = 1/W^(2/3
1	3.40	0.68	2.54	0.15	0.1	0.44
2	3.40	1.43	5.28	0.00	0	0.44
3	3.40	1.06	3.85	0.00	0	0.44
4	3.40	1.48	5.28	0.03	0.05	0.44
5	3.40	2.03	7.09	0.00	0	0.44
6	3.40	1.49	5.04	0.00	0	0.44
7	3.40	1.37	4.54	0.00	0	0.44
8	3.40	1.12	3.63	0.04	0.05	0.44
9	3.40	1.6	5.14	0.03	0.05	0.44
10	3.40	2.34	7.36	0.04	0.1	0.44
11	3.40	0.64	1.94	0.08	0.05	0.44
	AREA OF PLOT 5:		51.69			

AVERAGE RAINFALL IN SUBPLOT:

	AVERAGE RAINFALL (mm) and Rainfall Weighting (Average rainfall/tipping bucket rainfall)													
	RUN1		RUN2		RUN3		RUN4		RUN5		RUN6		RUN7	
SUBPLOT:	Rain	Weighting	Rain	Weighting	Rain	Weighting	Rain	Weighting	Rain	Weighting	Rain	Weighting	Rain	Weighting
1	44.00	0.91	85.00	1.14	65.00	0.78	65.00	0.88	90.00	1.08	48.00	0.90	80.00	1.08
2	52.00	1.07	90.00	1.21	80.00	0.96	70.00	0.95	95.00	1.14	58.00	1.09	84.00	1.14
3	60.00	1.24	100.00	1.34	90.00	1.08	85.00	1.15	100.00	1.20	64.00	1.20	88.00	1.19
4	62.00	1.28	105.00	1.41	100.00	1.20	95.00	1.29	105.00	1.26	66.00	1.24	92.00	1.25
5	72.00	1.49	110.00	1.48	105.00	1.26	100.00	1.36	110.00	1.32	70.00	1.32	102.00	1.38
6	70.00	1.45	100.00	1.34	110.00	1.32	100.00	1.36	105.00	1.26	68.00	1.28	98.00	1.33
7	68.00	1.40	100.00	1.34	110.00	1.32	100.00	1.36	105.00	1.26	68.00	1.28	100.00	1.36
8	68.00	1.40	100.00	1.34	110.00	1.32	100.00	1.36	115.00	1.38	70.00	1.32	100.00	1.36
9	68.00	1.40	100.00	1.34	100.00	1.20	100.00	1.36	115.00	1.38	72.00	1.35	100.00	1.36
10	72.00	1.49	105.00	1.41	100.00	1.20	100.00	1.36	115.00	1.38	74.00	1.39	96.00	1.30
11	72.00	1.49	105.00	1.41	105.00	1.26	100.00	1.36	115.00	1.38	70.00	1.32	96.00	1.30
Av.rainfall onplot(mm	64		100		98		92		106		66		94	
Tipping Bucket:	48.40		72.80		74.40		67.60		83.20		53.20		73.80	

TABLE Biv - RIPPED PLOT 4

SUBPLOT	WIDTH m	LENGTH m	AREA m^2	SLOPE	SLOPE* LENGTH	Cr = 1/W^(2/3
1	2.95	2.535	7.32	0.04	0.1	0.49
2	2.95	2.511	7.3	0.02	0.05	0.49
3	2.95	2.32	6.7	0.02	0.05	0.49
4	2.95	2.833	8.19	0.04	0.1	0.49
5	2.95	2.63	7.65	0.04	0.1	0.49
6	2.95	1.874	5.72	0.05	0.1	0.49
7	2.95	1.732	5.28	0.03	0.05	0.49
	AREA OF PLOT 4:		48.16			

AVERAGE RAINFALL IN SUBPLOT:

	AVERAGE RAINFALL (mm) and Rainfall Weighting (Average rainfall/tipping bucket rainfall)													
	RUN1		RUN2		RUN3		RUN4		RUN5		RUN6		RUN7	
SUBPLOT:	Rain	Weighting	Rain	Weighting	Rain	Weighting	Rain	Weighting	Rain	Weighting	Rain	Weighting	Rain	Weighting
1	75.00	1.61	115.00	1.57	110.00	1.24	100.00	1.47	105.00	1.47	26.00	1.13	100.00	1.29
2	60.00	1.29	95.00	1.29	85.00	0.96	75.00	1.11	85.00	1.19	32.00	1.39	100.00	1:29
3	65.00	1.39	110.00	1.50	110.00	1.24	100.00	1.47	105.00	1.47	30.00	1.30	110.00	1.42
4	60.00	1.29	100.00	1.36	110.00	1.24	100.00	1.47	100.00	1.40	32.00	1.39	110.00	1.42
5	55.00	1.18	80.00	1.09	95.00	1.07	95.00	1.40	105.00	1.47	34.00	1.48	115.00	1.49
6	75.00	1.61	100.00	1.36	110.00	1.24	115.00	1.70	105.00	1.47	44.00	1.91	125.00	1.61
7	70.00	1.50	95.00	1.29	100.00	1.13	85.00	1.25	95.00	1.33	38.00	1.65	120.00	1.55
Av.rainfall onplot(mm	66		99		103		96		100		34		111	
Tipping Bucket:	47		73		89		68		71		23		77	

TABLE Biii - RIPPED PLOT 3

SUBPLOT	WIDTH m	LENGTH m	AREA m^2	SLOPE	SLOPE *LENGTH	Cr = 1/W^(2/3
1	2.95	1.58	4.72	0.03	0.05	0.49
2	2.95	2.65	7.46	0.06	0.15	0.49
3	2.95	1.21	3.57	0.04	0.05	0.49
4	2.95	2.53	7.52	0.04	0.1	0.49
5	2.95	2.57	7.63	0.06	0.15	0.49
6	2.95	1.75	5.16	0.03	0.05	0.49
7	2.95	3.08	8.93	0.03	0.1	0.49
8	2.95	1.55	4.48	0.03	0.05	0.49
	AREA OF PLOT 3:		49.47			

AVERAGE RAINFALL IN SUBPLOT:

	AVERAGE RAINFALL (mm) and Rainfall Weighting (Average rainfall/tipping bucket rainfall)													
	RUN 1		RUN 2		RUN 3		RUN 4		RUN 5		RUN 6		RUN 7	
SUBPLOT:	Rain	Weighting	Rain	Weighting	Rain	Weighting	Rain	Weighting	Rain	Weighting	Rain	Weighting	Rain	Weighting
1	80	1.73	105	1.69	95	2.02	105	1.79	120	2.16	65	1.77	100	2.25
2	80	1.73	100	1.61	95	2.02	110	1.88	120	2.16	60	1.63	104	2.34
3	65	1.41	105	1.69	105	2.23	105	1.79	115	2.07	60	1.63	100	2.25
4	65	1.41	90	1.45	93	1.98	98	1.67	110	1.98	60	1.63	90	2.03
5	60	1.30	90	1.45	95	2.02	90	1.54	115	2.07	70	1.90	85	1.91
6	60	1.30	90	1.45	85	1.81	80	1.37	110	1.98	60	1.63	84	1.89
7	60	1.30	75	1.21	95	2.02	90	1.54	105	1.89	65	1.77	84	1.89
8	70	1.52	105	1.69	105	2.23	105	1.79	100	1.80	70	1.90	79	1.78
Av.rainfall onplot(mm	68		95		96		98		112		64		91	
Tipping Bucket:	46		62		47		59		56		37		44	

TABLE Bii - RIPPED PLOT 2

SUBPLOT	WIDTH m	LENGTH m	AREA m^2	SLOPE	SLOPE* LENGTH	Cr = 1/W^(2/3)
1	3.145714	2.75	9.11	0.04	0.1	0.465787
2	3.145714	2.61	8.52	0.06	0.15	0.465787
3	3.145714	1.81	5.86	0.03	0.05	0.465787
4	3.145714	2.95	9.26	0.05	0.15	0.465787
5	3.145714	1.59	4.87	0.05	0.075	0.465787
6	3.145714	2.96	8.92	0.03	0.1	0.465787
7	3.145714	2.55	7.64	0.029	0.075	0.465787
	AREA OF PLOT 2:		54.18			

AVERAGE RAINFALL IN SUBPLOT:

	Average Rainfall (mm) and Rainfall Weighting (Average rainfall/tipping bucket rainfall)													
	RUN1		RUN2		RUN3		RUN4		RUN5		RUN6		RUN7	
SUBPLOT	Rain	Weighting	Rain	Weighting	Rain	Weighting	Rain	Weighting	Rain	Weight	Rain	Weighting	Rain	Weighting
1	95	2.64	125	2.14	90	1.99	85	1.58	95	1.57	54	1.71	100	1.38
2	55	1.53	95	1.63	86	1.90	80	1.49	90	1.49	70	2.22	85	1.17
3	50	1.39	90	1.54	84	1.86	80	1.49	75	1.24	62	1.96	82	1.13
4	58	1.61	105	1.80	95	2.10	80	1.49	70	1.16	59	1.87	90	1.24
5	60	1.67	105	1.80	88	1.95	75	1.39	75	1.24	56	1.77	96	1.33
6	60	1.67	85	1.46	85	1.88	95	1.77	83	1.37	52	1.65	100	1.38
7	60	1.67	90	1.54	85	1.88	98	1.82	95	1.57	55	1.74	105	1.45
Av.Rainfall onplot(mm	63		99		88		85		83		58		94	
Tipping Bucket:	36		58.4		45.2		53.8		60.6		31.6		72.4	

TABLE Bi - RIPPED PLOT 1

SUBPLOT	WIDTH m	LENGTH m	AREA m^2	SLOPE	SLOPE* LENGTH	Cr = 1/W^(2/3)
1	2.91	1.82	5.31	0.04	0.08	1.00
2	3.13	1.83	5.74	0.03	0.05	0.63
3	3.08	2.84	8.77	0.03	0.08	0.48
4	3.06	3.17	9.69	0.03	0.10	0.40
5	3.00	3.19	9.58	0.04	0.13	0.34
6	2.92	2.57	7.51	0.02	0.05	0.30
7	2.89	2.14	6.19	0.04	0.08	0.27
	AREA OF PLOT 1:		52.78			

where

width = average width of subplot
length = average length of subplot (not mainstream length)
area = area of subplot (found using coordinates from digitiser in SURFER)
Slope * Length = difference in elevation at each boundary of subplot
the elevations were found using the countour map of ripped plot 1
Average Rainfall = Average of the Isohyet map contours for each subplot and each run

RIP PLOT 1	AVERAGE RAINFALL (mm) and Rainfall Weighting (Average Rainfall/Tipping Bucket rainfall)													
	RUN 1		RUN2		RUN3		RUN4		RUN5		RUN6		RUN7	
SUBPLOT:	Rain	Weighting	Rain	Weighting	Rain	Weighting	Rain	Weighting	Rain	Weighting	Rain	Weighting	Rain	Weighting
1	52.00	1.00	92.00	1.27	95.00	1.22	92.00	1.21	98.00	1.23	64.00	1.49	100.00	1.00
2	59.00	1.00	120.00	1.66	108.00	1.39	112.00	1.48	104.00	1.31	72.00	1.67	115.00	1.00
3	59.00	1.00	105.00	1.45	110.00	1.41	115.00	1.52	104.00	1.31	64.00	1.49	125.00	1.00
4	62.00	1.00	115.00	1.59	96.00	1.23	104.00	1.37	104.00	1.31	64.00	1.49	115.00	1.00
5	62.00	1.00	115.00	1.59	110.00	1.41	122.00	1.61	112.00	1.41	64.00	1.49	122.00	1.00
6	52.00	1.00	94.00	1.30	112.00	1.44	115.00	1.52	114.00	1.43	57.00	1.33	110.00	1.00
7	62.00	1.00	95.00	1.32	107.00	1.38	115.00	1.52	110.00	1.38	50.00	1.16	110.00	1.00
Av.rainfall on plot:	58		105		105		111		107		62		114	
Tipping Bucket:	n/a		72		78		76		80		43		n/a	

Note: Rainfall weighting is the average rainfall for each subplot in each run divided by the Tipping Bucket reading for each run