APPENDIX 11-N

DIVERSION BERM DESIGN DATA

APRIL 1, 1997

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DIVERSION BERM

BERM HEIGHT CALCULATIONS

MARCH 27, 1997

DIVERSION BERM HEIGHT CALCULATION									
Flow Slope (FS) (%)	Internal Slope (IS) (%)	Watershed Area (acres)	Peak Discharge (Q10) (cfs)	Flow Area (ft^2)	Wetted Perimeter (ft)	Mannings Coefficient	Berm Height (B) (ft)	Berm + 1 foot of Freeboard	Velocity (ft/s)
1	1	25	21.69	11.45	48.45	0.03	0.47	1.47	1.89
1	3	25	21.69	8.81	25.13	0.03	0.71	1.71	2.46
1	6	25	21.69	7.54	17.01	0.03	0.90	1.90	2.88
1	9	25	21.69	6.92	13.76	0.03	1.03	2.03	3.13
1	12	25	21.69	6.55	11.96	0.03	1.13	2.13	3.31
1	15	25	21.69	6.29	10.81	0.03	1.20	2.20	3.45
1	1	50	36.31	16.86	58.78	0.03	0.57	1.57	2.15
1	3	50	36.31	12.96	30.48	0.03	0.86	1.86	2.80
1	6	50	36.31	11.09	20.64	0.03	1.09	2.09	3.27
1	9	50	36.31	10.19	16.70	0.03	1.25	2.25	3.56
1	12	50	36.31	9.63	14.51	0.03	1.37	2.37	3.77
1	15	50	36.31	9.25	13.12	0.03	1.46	2.46	3.92
1	1	75	47.71	20.69	65.12	0.03	0.64	1.64	2.31
1	3	75	47.71	15.91	33.77	0.03	0.95	1.95	3.00
1	6	75	47.71	13.61	22.86	0.03	1.21	2.21	3.51
1	9	75	47.71	12.50	18.50	0.03	1.38	2.38	3.82
1	12	75	47.71	11.82	16.08	0.03	1.51	2.51	4.04
1	15	75	47.71	11.35	14.53	0.03	1.62	2.62	4.20
1	1	100	56.84	23.59	69.54	0.03	0.68	1.68	2.41
1	3	100	56.84	18.14	36.06	0.03	1.01	2.01	3.13
1	6	100	56.84	15.52	24.41	0.03	1.29	2.29	3.66
1	9	100	56.84	14.26	19.75	0.03	1.47	2.47	3.99
1	12	100	56.84	13.48	17.17	0.03	1.62	2.62	4.22
1	15	100	56.84	12.95	15.52	0.03	1.73	2.73	4.39
1	1	150	71.37	27.98	75.73	0.03	0.74	1.74	2.55
1	3	150	71.37	21.52	39.27	0.03	1.10	2.10	3.32
1	6	150	71.37	18.41	26.59	0.03	1.40	2.40	3.88
1	9	150	71.37	16.91	21.51	0.03	1.61	2.61	4.22
1	12	150	71.37	15.99	18.70	0.03	1.76	2.76	4.46
1	15	150	71.37	15.36	16.90	0.03	1.88	2.88	4.65
1	1	200	82.7	31.25	80.03	0.03	0.78	1.78	2.65
1	3	200	82.7	24.03	41.50	0.03	1.17	2.17	3.44
1	6	200	82.7	20.56	28.10	0.03	1.48	2.48	4.02
1	9	200	82.7	18.89	22.73	0.03	1.70	2.70	4.38
1	12	200	82.7	17.86	19.76	0.03	1.86	2.86	4.63
1	15	200	82.7	17.15	17.86	0.03	1.99	2.99	4.82
1	1	250	92.17	33.90	83.36	0.03	0.82	1.82	2.72
1	3	250	92.17	26.07	43.23	0.03	1.21	2.21	3.54
1	6	250	92.17	22.30	29.27	0.03	1.55	2.55	4.13
1	9	250	92.17	20.49	23.68	0.03	1.77	2.77	4.50
1	12	250	92.17	19.37	20.58	0.03	1.94	2.94	4.76
1	15	250	92.17	18.61	18.60	0.03	2.07	3.07	4.95
1	1	300	100.54	36.18	86.12	0.03	0.84	1.84	2.78
1	3	300	100.54	27.82	44.66	0.03	1.25	2.25	3.61
1	6	300	100.54	23.81	30.24	0.03	1.60	2.60	4.22

DIVERSION BERM HEIGHT CALCULATION									
Flow Slope (FS) (%)	Internal Slope (IS) (%)	Watershed Area (acres)	Peak Discharge (Q10) (cfs)	Flow Area (ft^2)	Wetted Perimeter (ft)	Mannings Coefficient	Berm Height (B) (ft)	Berm + 1 foot of Freeboard	Velocity (ft/s)
1	9	300	100.54	21.87	24.46	0.03	1.83	2.83	4.60
1	12	300	100.54	20.68	21.26	0.03	2.00	3.00	4.86
1	15	300	100.54	19.86	19.22	0.03	2.14	3.14	5.06
3	1	25	21.69	7.59	39.43	0.03	0.39	1.39	2.86
3	3	25	21.69	5.83	20.45	0.03	0.57	1.57	3.72
3	6	25	21.69	4.99	13.85	0.03	0.73	1.73	4.35
3	9	25	21.69	4.59	11.20	0.03	0.84	1.84	4.73
3	12	25	21.69	4.34	9.74	0.03	0.92	1.92	5.00
3	15	25	21.69	4.16	8.80	0.03	0.98	1.98	5.21
3	1	50	36.31	11.16	47.84	0.03	0.47	1.47	3.25
3	3	50	36.31	8.59	24.81	0.03	0.70	1.70	4.23
3	6	50	36.31	7.35	16.80	0.03	0.89	1.89	4.94
3	9	50	36.31	6.75	13.59	0.03	1.01	2.01	5.38
3	12	50	36.31	6.38	11.81	0.03	1.11	2.11	5.69
3	15	50	36.31	6.13	10.68	0.03	1.19	2.19	5.93
3	1	75	47.71	13.70	52.99	0.03	0.52	1.52	3.48
3	3	75	47.71	10.54	27.48	0.03	0.77	1.77	4.53
3	6	75	47.71	9.01	18.61	0.03	0.98	1.98	5.29
3	9	75	47.71	8.28	15.05	0.03	1.12	2.12	5.76
3	12	75	47.71	7.83	13.09	0.03	1.23	2.23	6.09
3	15	75	47.71	7.52	11.83	0.03	1.32	2.32	6.34
3	1	100	56.84	15.62	56.59	0.03	0.55	1.55	3.64
3	3	100	56.84	12.02	29.35	0.03	0.82	1.82	4.73
3	6	100	56.84	10.28	19.87	0.03	1.05	2.05	5.53
3	9	100	56.84	9.44	16.07	0.03	1.20	2.20	6.02
3	12	100	56.84	8.93	13.97	0.03	1.31	2.31	6.37
3	15	100	56.84	8.58	12.63	0.03	1.41	2.41	6.63
3	1	150	71.37	18.53	61.63	0.03	0.60	1.60	3.85
3	3	150	71.37	14.25	31.96	0.03	0.90	1.90	5.01
3	6	150	71.37	12.19	21.64	0.03	1.14	2.14	5.85
3	9	150	71.37	11.20	17.51	0.03	1.31	2.31	6.37
3	12	150	71.37	10.59	15.22	0.03	1.43	2.43	6.74
3	15	150	71.37	10.17	13.75	0.03	1.53	2.53	7.02
3	1	200	82.7	20.70	65.14	0.03	0.64	1.64	4.00
3	3	200	82.7	15.92	33.78	0.03	0.95	1.95	5.20
3	6	200	82.7	13.62	22.87	0.03	1.21	2.21	6.07
3	9	200	82.7	12.51	18.50	0.03	1.38	2.38	6.61
3	12	200	82.7	11.83	16.08	0.03	1.51	2.51	6.99
3	15	200	82.7	11.36	14.54	0.03	1.62	2.62	7.28
3	1	250	92.17	22.45	67.84	0.03	0.66	1.66	4.11
3	3	250	92.17	17.27	35.18	0.03	0.99	1.99	5.34
3	6	250	92.17	14.77	23.82	0.03	1.26	2.26	6.24
3	9	250	92.17	13.57	19.27	0.03	1.44	2.44	6.79
3	12	250	92.17	12.83	16.75	0.03	1.58	2.58	7.18
3	15	250	92.17	12.32	15.14	0.03	1.69	2.69	7.48

DIVERSION BERM HEIGHT CALCULATION									
Flow Slope (FS) (%)	Internal Slope (IS) (%)	Watershed Area (acres)	Peak Discharge (Q10) (cfs)	Flow Area (ft^2)	Wetted Perimeter (ft)	Mannings Coefficient	Berm Height (B) (ft)	Berm + 1 foot of Freeboard	Velocity (ft/s)
3	1	300	100.54	23.97	70.09	0.03	0.69	1.69	4.20
3	3	300	100.54	18.43	36.34	0.03	1.02	2.02	5.46
3	6	300	100.54	15.77	24.61	0.03	1.30	2.30	6.38
3	9	300	100.54	14.49	19.91	0.03	1.49	2.49	6.94
3	12	300	100.54	13.70	17.31	0.03	1.63	2.63	7.34
3	15	300	100.54	13.15	15.64	0.03	1.74	2.74	7.64
5	1	25	21.69	6.26	35.83	0.03	0.35	1.35	3.46
5	3	25	21.69	4.82	18.58	0.03	0.52	1.52	4.50
5	6	25	21.69	4.12	12.58	0.03	0.66	1.66	5.26
5	9	25	21.69	3.79	10.18	0.03	0.76	1.76	5.73
5	12	25	21.69	3.58	8.85	0.03	0.83	1.83	6.06
5	15	25	21.69	3.44	8.00	0.03	0.89	1.89	6.31
5	1	50	36.31	9.22	43.47	0.03	0.43	1.43	3.94
5	3	50	36.31	7.09	22.54	0.03	0.63	1.63	5.12
5	6	50	36.31	6.06	15.26	0.03	0.81	1.81	5.99
5	9	50	36.31	5.57	12.35	0.03	0.92	1.92	6.52
5	12	50	36.31	5.27	10.73	0.03	1.01	2.01	6.89
5	15	50	36.31	5.06	9.70	0.03	1.08	2.08	7.18
5	1	75	47.71	11.31	48.15	0.03	0.47	1.47	4.22
5	3	75	47.71	8.70	24.97	0.03	0.70	1.70	5.48
5	6	75	47.71	7.44	16.91	0.03	0.89	1.89	6.41
5	9	75	47.71	6.84	13.68	0.03	1.02	2.02	6.98
5	12	75	47.71	6.47	11.89	0.03	1.12	2.12	7.38
5	15	75	47.71	6.21	10.75	0.03	1.20	2.20	7.68
5	1	100	56.84	12.90	51.42	0.03	0.50	1.50	4.41
5	3	100	56.84	9.92	26.67	0.03	0.75	1.75	5.73
5	6	100	56.84	8.49	18.05	0.03	0.95	1.95	6.70
5	9	100	56.84	7.80	14.61	0.03	1.09	2.09	7.29
5	12	100	56.84	7.37	12.70	0.03	1.19	2.19	7.71
5	15	100	56.84	7.08	11.48	0.03	1.28	2.28	8.03
5	1	150	71.37	15.30	56.00	0.03	0.55	1.55	4.66
5	3	150	71.37	11.77	29.04	0.03	0.82	1.82	6.06
5	6	150	71.37	10.07	19.66	0.03	1.04	2.04	7.09
5	9	150	71.37	9.25	15.91	0.03	1.19	2.19	7.72
5	12	150	71.37	8.75	13.83	0.03	1.30	2.30	8.16
5	15	150	71.37	8.40	12.50	0.03	1.39	2.39	8.50
5	1	200	82.7	17.09	59.19	0.03	0.58	1.58	4.84
5	3	200	82.7	13.14	30.69	0.03	0.86	1.86	6.29
5	6	200	82.7	11.24	20.78	0.03	1.10	2.10	7.35
5	9	200	82.7	10.33	16.81	0.03	1.26	2.26	8.01
5	12	200	82.7	9.77	14.61	0.03	1.37	2.37	8.47
5	15	200	82.7	9.38	13.21	0.03	1.47	2.47	8.82
5	1	250	92.17	18.54	61.64	0.03	0.60	1.60	4.97
5	3	250	92.17	14.26	31.97	0.03	0.90	1.90	6.47
5	6	250	92.17	12.20	21.64	0.03	1.14	2.14	7.56

DIVERSION BERM HEIGHT CALCULATION									
Flow Slope (FS) (%)	Internal Slope (IS) (%)	Watershed Area (acres)	Peak Discharge (Q10) (cfs)	Flow Area (ft^2)	Wetted Perimeter (ft)	Mannings Coefficient	Berm Height (B) (ft)	Berm + 1 foot of Freeboard	Velocity (ft/s)
5	9	250	92.17	11.21	17.51	0.03	1.31	2.31	8.23
5	12	250	92.17	10.60	15.22	0.03	1.43	2.43	8.70
5	15	250	92.17	10.17	13.76	0.03	1.53	2.53	9.06
5	1	300	100.54	19.79	63.68	0.03	0.62	1.62	5.08
5	3	300	100.54	15.22	33.02	0.03	0.93	1.93	6.61
5	6	300	100.54	13.02	22.36	0.03	1.18	2.18	7.72
5	9	300	100.54	11.96	18.09	0.03	1.35	2.35	8.41
5	12	300	100.54	11.31	15.73	0.03	1.48	2.48	8.89
5	15	300	100.54	10.86	14.21	0.03	1.58	2.58	9.26
7	1	25	21.69	5.52	33.64	0.03	0.33	1.33	3.93
7	3	25	21.69	4.25	17.44	0.03	0.49	1.49	5.11
7	6	25	21.69	3.63	11.81	0.03	0.62	1.62	5.97
7	9	25	21.69	3.34	9.56	0.03	0.71	1.71	6.50
7	12	25	21.69	3.16	8.31	0.03	0.78	1.78	6.87
7	15	25	21.69	3.03	7.51	0.03	0.84	1.84	7.16
7	1	50	36.31	8.13	40.81	0.03	0.40	1.40	4.47
7	3	50	36.31	6.25	21.16	0.03	0.59	1.59	5.81
7	6	50	36.31	5.35	14.33	0.03	0.76	1.76	6.79
7	9	50	36.31	4.91	11.59	0.03	0.87	1.87	7.39
7	12	50	36.31	4.64	10.08	0.03	0.95	1.95	7.82
7	15	50	36.31	4.46	9.11	0.03	1.01	2.01	8.14
7	1	75	47.71	9.97	45.21	0.03	0.44	1.44	4.78
7	3	75	47.71	7.67	23.44	0.03	0.66	1.66	6.22
7	6	75	47.71	6.56	15.87	0.03	0.84	1.84	7.27
7	9	75	47.71	6.03	12.84	0.03	0.96	1.96	7.92
7	12	75	47.71	5.70	11.16	0.03	1.05	2.05	8.37
7	15	75	47.71	5.47	10.09	0.03	1.12	2.12	8.72
7	1	100	56.84	11.37	48.28	0.03	0.47	1.47	5.00
7	3	100	56.84	8.74	25.04	0.03	0.70	1.70	6.50
7	6	100	56.84	7.48	16.95	0.03	0.90	1.90	7.60
7	9	100	56.84	6.87	13.71	0.03	1.02	2.02	8.27
7	12	100	56.84	6.50	11.92	0.03	1.12	2.12	8.75
7	15	100	56.84	6.24	10.77	0.03	1.20	2.20	9.11
7	1	150	71.37	13.49	52.58	0.03	0.51	1.51	5.29
7	3	150	71.37	10.37	27.27	0.03	0.77	1.77	6.88
7	6	150	71.37	8.87	18.46	0.03	0.98	1.98	8.04
7	9	150	71.37	8.15	14.94	0.03	1.12	2.12	8.75
7	12	150	71.37	7.71	12.98	0.03	1.22	2.22	9.26
7	15	150	71.37	7.40	11.73	0.03	1.31	2.31	9.64
7	1	200	82.7	15.06	55.57	0.03	0.54	1.54	5.49
7	3	200	82.7	11.58	28.82	0.03	0.81	1.81	7.14
7	6	200	82.7	9.91	19.51	0.03	1.03	2.03	8.34
7	9	200	82.7	9.11	15.78	0.03	1.18	2.18	9.08
7	12	200	82.7	8.61	13.72	0.03	1.29	2.29	9.61
7	15	200	82.7	8.27	12.40	0.03	1.38	2.38	10.00

DIVERSION BERM HEIGHT CALCULATION									
Flow Slope (FS) (%)	Internal Slope (IS) (%)	Watershed Area (acres)	Peak Discharge (Q10) (cfs)	Flow Area (ft^2)	Wetted Perimeter (ft)	Mannings Coefficient	Berm Height (B) (ft)	Berm + 1 foot of Freeboard	Velocity (ft/s)
7	1	250	92.17	16.34	57.87	0.03	0.57	1.57	5.64
7	3	250	92.17	12.57	30.01	0.03	0.84	1.84	7.33
7	6	250	92.17	10.75	20.32	0.03	1.07	2.07	8.57
7	9	250	92.17	9.88	16.44	0.03	1.23	2.23	9.33
7	12	250	92.17	9.34	14.29	0.03	1.34	2.34	9.87
7	15	250	92.17	8.97	12.92	0.03	1.44	2.44	10.28
7	1	300	100.54	17.44	59.79	0.03	0.58	1.58	5.76
7	3	300	100.54	13.41	31.01	0.03	0.87	1.87	7.50
7	6	300	100.54	11.48	20.99	0.03	1.11	2.11	8.76
7	9	300	100.54	10.54	16.98	0.03	1.27	2.27	9.54
7	12	300	100.54	9.97	14.76	0.03	1.39	2.39	10.09
7	15	300	100.54	9.57	13.34	0.03	1.49	2.49	10.50
9	1	25	21.69	5.02	32.09	0.03	0.31	1.31	4.32
9	3	25	21.69	3.86	16.64	0.03	0.47	1.47	5.61
9	6	25	21.69	3.31	11.27	0.03	0.60	1.60	6.56
9	9	25	21.69	3.04	9.12	0.03	0.68	1.68	7.14
9	12	25	21.69	2.87	7.92	0.03	0.75	1.75	7.55
9	15	25	21.69	2.76	7.16	0.03	0.80	1.80	7.87
9	1	50	36.31	7.39	38.93	0.03	0.38	1.38	4.91
9	3	50	36.31	5.69	20.19	0.03	0.57	1.57	6.39
9	6	50	36.31	4.87	13.67	0.03	0.72	1.72	7.46
9	9	50	36.31	4.47	11.06	0.03	0.83	1.83	8.12
9	12	50	36.31	4.23	9.61	0.03	0.90	1.90	8.59
9	15	50	36.31	4.06	8.69	0.03	0.97	1.97	8.95
9	1	75	47.71	9.08	43.13	0.03	0.42	1.42	5.26
9	3	75	47.71	6.98	22.37	0.03	0.63	1.63	6.84
9	6	75	47.71	5.97	15.14	0.03	0.80	1.80	7.99
9	9	75	47.71	5.49	12.25	0.03	0.91	1.91	8.70
9	12	75	47.71	5.19	10.65	0.03	1.00	2.00	9.20
9	15	75	47.71	4.98	9.62	0.03	1.07	2.07	9.58
9	1	100	56.84	10.35	46.06	0.03	0.45	1.45	5.49
9	3	100	56.84	7.96	23.88	0.03	0.67	1.67	7.14
9	6	100	56.84	6.81	16.17	0.03	0.85	1.85	8.35
9	9	100	56.84	6.26	13.08	0.03	0.98	1.98	9.09
9	12	100	56.84	5.91	11.37	0.03	1.07	2.07	9.61
9	15	100	56.84	5.68	10.28	0.03	1.14	2.14	10.01
9	1	150	71.37	12.28	50.16	0.03	0.49	1.49	5.81
9	3	150	71.37	9.44	26.01	0.03	0.73	1.73	7.56
9	6	150	71.37	8.08	17.61	0.03	0.93	1.93	8.84
9	9	150	71.37	7.42	14.25	0.03	1.06	2.06	9.62
9	12	150	71.37	7.02	12.39	0.03	1.17	2.17	10.17
9	15	150	71.37	6.74	11.19	0.03	1.25	2.25	10.59
9	1	200	82.7	13.71	53.01	0.03	0.52	1.52	6.03
9	3	200	82.7	10.54	27.49	0.03	0.77	1.77	7.84
9	6	200	82.7	9.02	18.61	0.03	0.98	1.98	9.17

DIVERSION BERM HEIGHT CALCULATION									
Flow Slope (FS) (%)	Internal Slope (IS) (%)	Watershed Area (acres)	Peak Discharge (Q10) (cfs)	Flow Area (ft^2)	Wetted Perimeter (ft)	Mannings Coefficient	Berm Height (B) (ft)	Berm + 1 foot of Freeboard	Velocity (ft/s)
9	9	200	82.7	8.29	15.06	0.03	1.12	2.12	9.98
9	12	200	82.7	7.84	13.09	0.03	1.23	2.23	10.55
9	15	200	82.7	7.52	11.83	0.03	1.32	2.32	10.99
9	1	250	92.17	14.87	55.21	0.03	0.54	1.54	6.20
9	3	250	92.17	11.44	28.63	0.03	0.80	1.80	8.06
9	6	250	92.17	9.78	19.38	0.03	1.02	2.02	9.42
9	9	250	92.17	8.99	15.68	0.03	1.17	2.17	10.25
9	12	250	92.17	8.50	13.63	0.03	1.28	2.28	10.84
9	15	250	92.17	8.16	12.32	0.03	1.37	2.37	11.29
9	1	300	100.54	15.87	57.04	0.03	0.56	1.56	6.33
9	3	300	100.54	12.21	29.58	0.03	0.83	1.83	8.24
9	6	300	100.54	10.44	20.03	0.03	1.06	2.06	9.63
9	9	300	100.54	9.59	16.20	0.03	1.21	2.21	10.48
9	12	300	100.54	9.07	14.08	0.03	1.33	2.33	11.08
9	15	300	100.54	8.71	12.73	0.03	1.42	2.42	11.54
11	1	25	21.69	4.66	30.91	0.03	0.30	1.30	4.65
11	3	25	21.69	3.58	16.03	0.03	0.45	1.45	6.05
11	6	25	21.69	3.07	10.85	0.03	0.57	1.57	7.07
11	9	25	21.69	2.82	8.78	0.03	0.66	1.66	7.70
11	12	25	21.69	2.66	7.63	0.03	0.72	1.72	8.14
11	15	25	21.69	2.56	6.90	0.03	0.77	1.77	8.48
11	1	50	36.31	6.86	37.49	0.03	0.37	1.37	5.29
11	3	50	36.31	5.27	19.44	0.03	0.55	1.55	6.88
11	6	50	36.31	4.51	13.16	0.03	0.70	1.70	8.05
11	9	50	36.31	4.15	10.65	0.03	0.80	1.80	8.76
11	12	50	36.31	3.92	9.26	0.03	0.87	1.87	9.26
11	15	50	36.31	3.76	8.37	0.03	0.93	1.93	9.65
11	1	75	47.71	8.42	41.54	0.03	0.41	1.41	5.67
11	3	75	47.71	6.47	21.54	0.03	0.61	1.61	7.37
11	6	75	47.71	5.54	14.58	0.03	0.77	1.77	8.61
11	9	75	47.71	5.09	11.80	0.03	0.88	1.88	9.38
11	12	75	47.71	4.81	10.26	0.03	0.96	1.96	9.92
11	15	75	47.71	4.62	9.27	0.03	1.03	2.03	10.33
11	1	100	56.84	9.60	44.36	0.03	0.43	1.43	5.92
11	3	100	56.84	7.38	23.00	0.03	0.65	1.65	7.70
11	6	100	56.84	6.32	15.57	0.03	0.82	1.82	9.00
11	9	100	56.84	5.80	12.60	0.03	0.94	1.94	9.80
11	12	100	56.84	5.49	10.95	0.03	1.03	2.03	10.36
11	15	100	56.84	5.27	9.90	0.03	1.10	2.10	10.79
11	1	150	71.37	11.39	48.31	0.03	0.47	1.47	6.27
11	3	150	71.37	8.76	25.05	0.03	0.70	1.70	8.15
11	6	150	71.37	7.49	16.96	0.03	0.90	1.90	9.53
11	9	150	71.37	6.88	13.72	0.03	1.02	2.02	10.37
11	12	150	71.37	6.51	11.93	0.03	1.12	2.12	10.97
11	15	150	71.37	6.25	10.78	0.03	1.20	2.20	11.42

DIVERSION BERM HEIGHT CALCULATION									
Flow Slope (FS) (%)	Internal Slope (IS) (%)	Watershed Area (acres)	Peak Discharge (Q10) (cfs)	Flow Area (ft^2)	Wetted Perimeter (ft)	Mannings Coefficient	Berm Height (B) (ft)	Berm + 1 foot of Freeboard	Velocity (ft/s)
11	1	200	82.7	12.72	51.05	0.03	0.50	1.50	6.50
11	3	200	82.7	9.78	26.47	0.03	0.74	1.74	8.46
11	6	200	82.7	8.37	17.93	0.03	0.95	1.95	9.88
11	9	200	82.7	7.69	14.50	0.03	1.08	2.08	10.76
11	12	200	82.7	7.27	12.61	0.03	1.19	2.19	11.38
11	15	200	82.7	6.98	11.39	0.03	1.27	2.27	11.85
11	1	250	92.17	13.79	53.17	0.03	0.52	1.52	6.68
11	3	250	92.17	10.61	27.57	0.03	0.77	1.77	8.69
11	6	250	92.17	9.07	18.67	0.03	0.99	1.99	10.16
11	9	250	92.17	8.34	15.10	0.03	1.13	2.13	11.06
11	12	250	92.17	7.88	13.13	0.03	1.24	2.24	11.69
11	15	250	92.17	7.57	11.87	0.03	1.32	2.32	12.18
11	1	300	100.54	14.72	54.93	0.03	0.54	1.54	6.83
11	3	300	100.54	11.32	28.49	0.03	0.80	1.80	8.88
11	6	300	100.54	9.69	19.29	0.03	1.02	2.02	10.38
11	9	300	100.54	8.90	15.60	0.03	1.17	2.17	11.30
11	12	300	100.54	8.41	13.56	0.03	1.28	2.28	11.95
11	15	300	100.54	8.08	12.26	0.03	1.37	2.37	12.44
13	1	25	21.69	4.38	29.95	0.03	0.29	1.29	4.96
13	3	25	21.69	3.37	15.53	0.03	0.44	1.44	6.44
13	6	25	21.69	2.88	10.52	0.03	0.56	1.56	7.53
13	9	25	21.69	2.65	8.51	0.03	0.64	1.64	8.20
13	12	25	21.69	2.50	7.40	0.03	0.70	1.70	8.67
13	15	25	21.69	2.40	6.68	0.03	0.74	1.74	9.03
13	1	50	36.31	6.44	36.34	0.03	0.36	1.36	5.64
13	3	50	36.31	4.95	18.84	0.03	0.53	1.53	7.33
13	6	50	36.31	4.24	12.76	0.03	0.67	1.67	8.57
13	9	50	36.31	3.89	10.32	0.03	0.77	1.77	9.32
13	12	50	36.31	3.68	8.97	0.03	0.84	1.84	9.86
13	15	50	36.31	3.54	8.11	0.03	0.90	1.90	10.27
13	1	75	47.71	7.91	40.26	0.03	0.39	1.39	6.03
13	3	75	47.71	6.08	20.88	0.03	0.59	1.59	7.85
13	6	75	47.71	5.20	14.13	0.03	0.75	1.75	9.17
13	9	75	47.71	4.78	11.43	0.03	0.85	1.85	9.98
13	12	75	47.71	4.52	9.94	0.03	0.94	1.94	10.56
13	15	75	47.71	4.34	8.98	0.03	1.00	2.00	10.99
13	1	100	56.84	9.02	42.99	0.03	0.42	1.42	6.30
13	3	100	56.84	6.93	22.29	0.03	0.63	1.63	8.20
13	6	100	56.84	5.93	15.09	0.03	0.80	1.80	9.58
13	9	100	56.84	5.45	12.21	0.03	0.91	1.91	10.43
13	12	100	56.84	5.15	10.61	0.03	1.00	2.00	11.03
13	15	100	56.84	4.95	9.59	0.03	1.07	2.07	11.49
13	1	150	71.37	10.69	46.82	0.03	0.46	1.46	6.67
13	3	150	71.37	8.22	24.28	0.03	0.68	1.68	8.68
13	6	150	71.37	7.04	16.44	0.03	0.87	1.87	10.14

DIVERSION BERM HEIGHT CALCULATION									
Flow Slope (FS) (%)	Internal Slope (IS) (%)	Watershed Area (acres)	Peak Discharge (Q10) (cfs)	Flow Area (ft^2)	Wetted Perimeter (ft)	Mannings Coefficient	Berm Height (B) (ft)	Berm + 1 foot of Freeboard	Velocity (ft/s)
13	9	150	71.37	6.46	13.30	0.03	0.99	1.99	11.04
13	12	150	71.37	6.11	11.56	0.03	1.09	2.09	11.68
13	15	150	71.37	5.87	10.45	0.03	1.16	2.16	12.16
13	1	200	82.7	11.94	49.48	0.03	0.48	1.48	6.92
13	3	200	82.7	9.18	25.66	0.03	0.72	1.72	9.00
13	6	200	82.7	7.86	17.37	0.03	0.92	1.92	10.52
13	9	200	82.7	7.22	14.05	0.03	1.05	2.05	11.46
13	12	200	82.7	6.83	12.22	0.03	1.15	2.15	12.12
13	15	200	82.7	6.56	11.04	0.03	1.23	2.23	12.62
13	1	250	92.17	12.96	51.53	0.03	0.50	1.50	7.11
13	3	250	92.17	9.96	26.72	0.03	0.75	1.75	9.25
13	6	250	92.17	8.52	18.09	0.03	0.96	1.96	10.81
13	9	250	92.17	7.83	14.64	0.03	1.09	2.09	11.77
13	12	250	92.17	7.40	12.72	0.03	1.20	2.20	12.45
13	15	250	92.17	7.11	11.50	0.03	1.28	2.28	12.96
13	1	300	100.54	13.83	53.24	0.03	0.52	1.52	7.27
13	3	300	100.54	10.63	27.61	0.03	0.78	1.78	9.45
13	6	300	100.54	9.10	18.69	0.03	0.99	1.99	11.05
13	9	300	100.54	8.36	15.12	0.03	1.13	2.13	12.03
13	12	300	100.54	7.90	13.15	0.03	1.24	2.24	12.72
13	15	300	100.54	7.59	11.88	0.03	1.32	2.32	13.25
15	1	25	21.69	4.15	29.16	0.03	0.29	1.29	5.23
15	3	25	21.69	3.19	15.12	0.03	0.42	1.42	6.80
15	6	25	21.69	2.73	10.24	0.03	0.54	1.54	7.95
15	9	25	21.69	2.51	8.28	0.03	0.62	1.62	8.65
15	12	25	21.69	2.37	7.20	0.03	0.68	1.68	9.15
15	15	25	21.69	2.28	6.51	0.03	0.72	1.72	9.53
15	1	50	36.31	6.11	35.38	0.03	0.35	1.35	5.95
15	3	50	36.31	4.70	18.34	0.03	0.52	1.52	7.73
15	6	50	36.31	4.02	12.42	0.03	0.66	1.66	9.04
15	9	50	36.31	3.69	10.05	0.03	0.75	1.75	9.84
15	12	50	36.31	3.49	8.74	0.03	0.82	1.82	10.41
15	15	50	36.31	3.35	7.89	0.03	0.88	1.88	10.84
15	1	75	47.71	7.49	39.19	0.03	0.38	1.38	6.37
15	3	75	47.71	5.76	20.32	0.03	0.57	1.57	8.28
15	6	75	47.71	4.93	13.76	0.03	0.73	1.73	9.68
15	9	75	47.71	4.53	11.13	0.03	0.83	1.83	10.53
15	12	75	47.71	4.28	9.68	0.03	0.91	1.91	11.14
15	15	75	47.71	4.11	8.75	0.03	0.97	1.97	11.60
15	1	100	56.84	8.54	41.85	0.03	0.41	1.41	6.65
15	3	100	56.84	6.57	21.70	0.03	0.61	1.61	8.65
15	6	100	56.84	5.62	14.69	0.03	0.78	1.78	10.11
15	9	100	56.84	5.16	11.89	0.03	0.89	1.89	11.01
15	12	100	56.84	4.88	10.33	0.03	0.97	1.97	11.64
15	15	100	56.84	4.69	9.34	0.03	1.04	2.04	12.12

DIVERSION BERM HEIGHT CALCULATION									
Flow Slope (FS) (%)	Internal Slope (IS) (%)	Watershed Area (acres)	Peak Discharge (Q10) (cfs)	Flow Area (ft^2)	Wetted Perimeter (ft)	Mannings Coefficient	Berm Height (B) (ft)	Berm + 1 foot of Freeboard	Velocity (ft/s)
15	1	150	71.37	10.14	45.58	0.03	0.45	1.45	7.04
15	3	150	71.37	7.79	23.64	0.03	0.66	1.66	9.16
15	6	150	71.37	6.67	16.00	0.03	0.85	1.85	10.70
15	9	150	71.37	6.13	12.95	0.03	0.97	1.97	11.65
15	12	150	71.37	5.79	11.25	0.03	1.06	2.06	12.32
15	15	150	71.37	5.56	10.17	0.03	1.13	2.13	12.83
15	1	200	82.7	11.32	48.17	0.03	0.47	1.47	7.31
15	3	200	82.7	8.70	24.98	0.03	0.70	1.70	9.50
15	6	200	82.7	7.45	16.91	0.03	0.89	1.89	11.10
15	9	200	82.7	6.84	13.68	0.03	1.02	2.02	12.09
15	12	200	82.7	6.47	11.89	0.03	1.12	2.12	12.78
15	15	200	82.7	6.21	10.75	0.03	1.20	2.20	13.31
15	1	250	92.17	12.28	50.17	0.03	0.49	1.49	7.51
15	3	250	92.17	9.44	26.01	0.03	0.73	1.73	9.76
15	6	250	92.17	8.08	17.61	0.03	0.93	1.93	11.41
15	9	250	92.17	7.42	14.25	0.03	1.06	2.06	12.42
15	12	250	92.17	7.02	12.39	0.03	1.17	2.17	13.13
15	15	250	92.17	6.74	11.20	0.03	1.25	2.25	13.68
15	1	300	100.54	13.11	51.83	0.03	0.51	1.51	7.67
15	3	300	100.54	10.08	26.88	0.03	0.76	1.76	9.98
15	6	300	100.54	8.62	18.20	0.03	0.96	1.96	11.66
15	9	300	100.54	7.92	14.72	0.03	1.10	2.10	12.69
15	12	300	100.54	7.49	12.80	0.03	1.20	2.20	13.42
15	15	300	100.54	7.19	11.57	0.03	1.29	2.29	13.98

DIVERSION BERM

SEDCAD+ COMPUTER RUNS

WORST CASE SENERIOS
FOR 25 TO 300 ACRE WATERSHEDS

MARCH 27, 1997

CIVIL SOFTWARE DESIGN

SEDCAD+ Version 3

DEVERSION BERM - WORST CASE SENERIO FOR 25 AC WATERSHED

by

Name: LR

Company Name: BHP MINERALS
File Name: C:\LR\BERM\25AC

Date: 03-27-1997

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Company Name: BHP MINERALS
Filename: C:\LR\BERM\25AC User: LR
Date: 03-27-1997 Time: 08:18:37
DEVERSION BERM - WORST CASE SENERIO FOR 25 AC WATERSHED
Storm: 1.60 inches, 10 year-24 hour, Type II-65
Hydrograph Convolution Interval: 0.1 hr

SUBWATERSHED/STRUCTURE INPUT/OUTPUT TABLE

-Hydrology-

JBS	SWS	Area (ac)	CN	UHS	Tc (hrs)	K (hrs)	X	Base-Flow (cfs)	Runoff Volume (ac-ft)	Peak Discharge (cfs)
111	1	25.00	89	M	0.153	0.000	0.000	0.0	1.47	21.69
			Type: Null		Label: BERM					
111	Structure	25.00							1.47	
111	Total IN/OUT	25.00							1.47	21.69

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Company Name: BHP MINERALS
Filename: C:\LR\BERM\25AC User: LR
Date: 03-27-1997 Time: 08:18:37
DEVERSION BERM - WORST CASE SENERIO FOR 25 AC WATERSHED
Storm: 1.60 inches, 10 year-24 hour, Type II-65
Hydrograph Convolution Interval: 0.1 hr

DETAILED SUBWATERSHED INPUT/OUTPUT TABLE

J	B	S	SWS	Seg. #	Land Flow Condition	Distance (ft)	Slope (%)	Velocity (fps)	Segment Time (hr)	Time Conc. (hr)	Muskingum K (hr)	X
1	1	1	1	-a	5	1565.00	7.99	2.83	0.15	0.153		

CIVIL SOFTWARE DESIGN

SEDCAD+ Version 3

DIVERSION BERM - WORST CASE SENERIO FOR 50 AC WATERSHED

by

Name: LR

Company Name: BHP MINERALS
File Name: C:\LR\BERM\50AC

Date: 03-27-1997

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Company Name: BHP MINERALS
Filename: C:\LR\BERM\50AC User: LR
Date: 03-27-1997 Time: 08:18:39
DIVERSION BERM - WORST CASE SENERIO FOR 50 AC WATERSHED
Storm: 1.60 inches, 10 year-24 hour, Type II-65
Hydrograph Convolution Interval: 0.1 hr

SUBWATERSHED/STRUCTURE INPUT/OUTPUT TABLE

-Hydrology-

JBS	SWS	Area (ac)	CN	UHS	Tc (hrs)	K (hrs)	X	Base-Flow (cfs)	Runoff Volume (ac-ft)	Peak Discharge (cfs)
111	1	50.00	89	M	0.258	0.000	0.000	0.0	2.95	36.31
			Type: Null		Label: BERM					
111	Structure	50.00							2.95	
111	Total IN/OUT	50.00							2.95	36.31

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Company Name: BHP MINERALS
Filename: C:\LR\BERM\50AC User: LR
Date: 03-27-1997 Time: 08:18:39
DIVERSION BERM - WORST CASE SENERIO FOR 50 AC WATERSHED
Storm: 1.60 inches, 10 year-24 hour, Type II-65
Hydrograph Convolution Interval: 0.1 hr

DETAILED SUBWATERSHED INPUT/OUTPUT TABLE

J	B	S	SWS	Seg. #	Land Flow Condition	Distance (ft)	Slope (%)	Velocity (fps)	Segment Time (hr)	Time Conc. (hr)	Muskingum K (hr)	Muskingum X
1	1	1	1	-a	5	2214.00	5.65	2.38	0.26	0.258		

CIVIL SOFTWARE DESIGN

SEDCAD+ Version 3

DIVERSION BERM - WORST CASE SENERIO FOR 75 AC WATERSHED

by

Name: LR

Company Name: BHP MINERALS
File Name: C:\LR\BERM\75AC

Date: 03-27-1997

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Company Name: BHP MINERALS
Filename: C:\LR\BERM\75AC User: LR
Date: 03-27-1997 Time: 08:18:41
DIVERSION BERM - WORST CASE SENERIO FOR 75 AC WATERSHED
Storm: 1.60 inches, 10 year-24 hour, Type II-65
Hydrograph Convolution Interval: 0.1 hr

SUBWATERSHED/STRUCTURE INPUT/OUTPUT TABLE

-Hydrology-

JBS	SWS	Area (ac)	CN	UHS	Tc (hrs)	K (hrs)	X	Base-Flow (cfs)	Runoff Volume (ac-ft)	Peak Discharge (cfs)
111	1	75.00	89	M	0.350	0.000	0.000	0.0	4.42	47.71
			Type: Null			Label: BERM				
111	Structure	75.00							4.42	
111	Total IN/OUT	75.00							4.42	47.71

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Company Name: BHP MINERALS
Filename: C:\LR\BERM\75AC User: LR
Date: 03-27-1997 Time: 08:18:41
DIVERSION BERM - WORST CASE SENERIO FOR 75 AC WATERSHED
Storm: 1.60 inches, 10 year-24 hour, Type II-65
Hydrograph Convolution Interval: 0.1 hr

DETAILED SUBWATERSHED INPUT/OUTPUT TABLE

J	B	S	SWS	Seg. #	Land Flow Condition	Distance (ft)	Slope (%)	Velocity (fps)	Segment Time (hr)	Time Conc. (hr)	Muskingum K (hr)	X
1	1	1	1	-a	5	2711.00	4.61	2.15	0.35	0.350		

CIVIL SOFTWARE DESIGN

SEDCAD+ Version 3

DIVERSION BERM - WORST CASE SENERIO FOR 100 AC WATERSHED

by

Name: LR

Company Name: BHP MINERALS
File Name: C:\LR\BERM\100AC

Date: 03-27-1997

Civil Software Design -- SEDCAD+ Version 3.1
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Company Name: BHP MINERALS
Filename: C:\LR\BERM\100AC User: LR
Date: 03-27-1997 Time: 08:18:43
DIVERSION BERM - WORST CASE SENERIO FOR 100 AC WATERSHED
Storm: 1.60 inches, 10 year-24 hour, Type II-65
Hydrograph Convolution Interval: 0.1 hr

SUBWATERSHED/STRUCTURE INPUT/OUTPUT TABLE

-Hydrology-

JBS	SWS	Area (ac)	CN	UHS	Tc (hrs)	K (hrs)	X	Base-Flow (cfs)	Runoff Volume (ac-ft)	Peak Discharge (cfs)
111	1	100.00	89	M	0.435	0.000	0.000	0.0	5.89	56.84
			Type: Null			Label: BERM				
111	Structure	100.00							5.89	
111	Total IN/OUT	100.00							5.89	56.84

Civil Software Design -- SEDCAD+ Version 3.1
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Company Name: BHP MINERALS
Filename: C:\LR\BERM\100AC User: LR
Date: 03-27-1997 Time: 08:18:43
DIVERSION BERM - WORST CASE SENERIO FOR 100 AC WATERSHED
Storm: 1.60 inches, 10 year-24 hour, Type II-65
Hydrograph Convolution Interval: 0.1 hr

DETAILED SUBWATERSHED INPUT/OUTPUT TABLE

J	B	S	SWS	Seg. #	Land Flow Condition	Distance (ft)	Slope (%)	Velocity (fps)	Segment Time (hr)	Time Conc. (hr)	Muskingum K (hr)	Muskingum X
1	1	1	1	-a	5	3131.00	3.99	2.00	0.44	0.435		

CIVIL SOFTWARE DESIGN

SEDCAD+ Version 3

DIVERSION BERM - WORST CASE SENERIO FOR 150 AC WATERSHED

by

Name: LR

Company Name: BHP MINERALS
File Name: C:\LR\BERM\150AC

Date: 03-27-1997

Civil Software Design -- SEDCAD+ Version 3.1
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Company Name: BHP MINERALS
Filename: C:\LR\BERM\150AC User: LR
Date: 03-27-1997 Time: 08:18:45
DIVERSION BERM - WORST CASE SENERIO FOR 150 AC WATERSHED
Storm: 1.60 inches, 10 year-24 hour, Type II-65
Hydrograph Convolution Interval: 0.1 hr

SUBWATERSHED/STRUCTURE INPUT/OUTPUT TABLE

-Hydrology-

JBS	SWS	Area (ac)	CN	UHS	Tc (hrs)	K (hrs)	X	Base-Flow (cfs)	Runoff Volume (ac-ft)	Peak Discharge (cfs)
111	1	150.00	89	M	0.589	0.000	0.000	0.0	8.84	71.37
			Type: Null		Label: BERM					
111	Structure	150.00							8.84	
111	Total IN/OUT	150.00							8.84	71.37

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Company Name: BHP MINERALS
Filename: C:\LR\BERM\150AC User: LR
Date: 03-27-1997 Time: 08:18:45
DIVERSION BERM - WORST CASE SENERIO FOR 150 AC WATERSHED
Storm: 1.60 inches, 10 year-24 hour, Type II-65
Hydrograph Convolution Interval: 0.1 hr

DETAILED SUBWATERSHED INPUT/OUTPUT TABLE

J	B	S	SWS	Seg. #	Land Flow Condition	Distance (ft)	Slope (%)	Velocity (fps)	Segment Time (hr)	Time Conc. (hr)	Muskingum K (hr)	Muskingum X
1	1	1	1	-a	5	3834.00	3.26	1.81	0.59	0.589		

CIVIL SOFTWARE DESIGN

SEDCAD+ Version 3

DIVERSION BERM - WORST CASE SENERIO FOR 200 AC WATERSHED

by

Name: LR

Company Name: BHP MINERALS
File Name: C:\LR\BERM\200AC

Date: 03-27-1997

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Company Name: BHP MINERALS
Filename: C:\LR\BERM\200AC User: LR
Date: 03-27-1997 Time: 08:18:47
DIVERSION BERM - WORST CASE SENERIO FOR 200 AC WATERSHED
Storm: 1.60 inches, 10 year-24 hour, Type II-65
Hydrograph Convolution Interval: 0.1 hr

SUBWATERSHED/STRUCTURE INPUT/OUTPUT TABLE

-Hydrology-

JBS	SWS	Area (ac)	CN	UHS	Tc (hrs)	K (hrs)	X	Base-Flow (cfs)	Runoff Volume (ac-ft)	Peak Discharge (cfs)
111	1	200.00	89	M	0.731	0.000	0.000	0.0	11.78	82.70
			Type: Null			Label: BERM				
111	Structure	200.00							11.78	
111	Total IN/OUT	200.00							11.78	82.70

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Company Name: BHP MINERALS
Filename: C:\LR\BERM\200AC User: LR
Date: 03-27-1997 Time: 08:18:47
DIVERSION BERM - WORST CASE SENERIO FOR 200 AC WATERSHED
Storm: 1.60 inches, 10 year-24 hour, Type II-65
Hydrograph Convolution Interval: 0.1 hr

DETAILED SUBWATERSHED INPUT/OUTPUT TABLE

J	B	S	SWS	Seg. #	Land Flow Condition	Distance (ft)	Slope (%)	Velocity (fps)	Segment Time (hr)	Time Conc. (hr)	Muskingum K (hr)	X
1	1	1	1	-a	5	4427.00	2.82	1.68	0.73	0.731		

CIVIL SOFTWARE DESIGN

SEDCAD+ Version 3

DIVERSION BERM - WORST CASE SENERIO FOR 250 AC WATERSHED

by

Name: LR

Company Name: BHP MINERALS
File Name: C:\LR\BERM\250AC

Date: 03-27-1997

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Company Name: BHP MINERALS
Filename: C:\LR\BERM\250AC User: LR
Date: 03-27-1997 Time: 08:18:33
DIVERSION BERM - WORST CASE SENERIO FOR 250 AC WATERSHED
Storm: 1.60 inches, 10 year-24 hour, Type II-65
Hydrograph Convolution Interval: 0.1 hr

SUBWATERSHED/STRUCTURE INPUT/OUTPUT TABLE

-Hydrology-

JBS	SWS	Area (ac)	CN	UHS	Tc (hrs)	K (hrs)	X	Base-Flow (cfs)	Runoff Volume (ac-ft)	Peak Discharge (cfs)
111	1	250.00	89	M	0.865	0.000	0.000	0.0	14.73	92.17
			Type: Null			Label: BERM				
111	Structure	250.00							14.73	
111	Total IN/OUT	250.00							14.73	92.17

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Company Name: BHP MINERALS
Filename: C:\LR\BERM\250AC User: LR
Date: 03-27-1997 Time: 08:18:33
DIVERSION BERM - WORST CASE SENERIO FOR 250 AC WATERSHED
Storm: 1.60 inches, 10 year-24 hour, Type II-65
Hydrograph Convolution Interval: 0.1 hr

DETAILED SUBWATERSHED INPUT/OUTPUT TABLE

J	B	S	SWS	Seg. #	Land Flow Condition	Distance (ft)	Slope (%)	Velocity (fps)	Segment Time (hr)	Time Conc. (hr)	Muskingum K (hr)	X
1	1	1	1	-a	5	4950.00	2.53	1.59	0.87	0.865		

CIVIL SOFTWARE DESIGN

SEDCAD+ Version 3

DIVERSION BERM - WORST CASE SENERIO FOR 300 AC WATERSHED

by

Name: LR

Company Name: BHP MINERALS
File Name: C:\LR\BERM\300AC

Date: 03-27-1997

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Company Name: BHP MINERALS
Filename: C:\LR\BERM\300AC User: LR
Date: 03-27-1997 Time: 08:18:35
DIVERSION BERM - WORST CASE SENERIO FOR 300 AC WATERSHED
Storm: 1.60 inches, 10 year-24 hour, Type II-65
Hydrograph Convolution Interval: 0.1 hr

SUBWATERSHED/STRUCTURE INPUT/OUTPUT TABLE

-Hydrology-

JBS	SWS	Area (ac)	CN	UHS	Tc (hrs)	K (hrs)	X	Base-Flow (cfs)	Runoff Volume (ac-ft)	Peak Discharge (cfs)
111	1	300.00	89	M	0.991	0.000	0.000	0.0	17.67	100.54
			Type: Null			Label: BERM				
111	Structure	300.00							17.67	
111	Total IN/OUT	300.00							17.67	100.54

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Company Name: BHP MINERALS
Filename: C:\LR\BERM\300AC User: LR
Date: 03-27-1997 Time: 08:18:35
DIVERSION BERM - WORST CASE SENERIO FOR 300 AC WATERSHED
Storm: 1.60 inches, 10 year-24 hour, Type II-65
Hydrograph Convolution Interval: 0.1 hr

DETAILED SUBWATERSHED INPUT/OUTPUT TABLE

J	B	S	SWS	Seg. #	Land Flow Condition	Distance (ft)	Slope (%)	Velocity (fps)	Segment Time (hr)	Time Conc. (hr)	Muskingum K (hr)	Muskingum X
1	1	1	1	-a	5	5422.00	2.31	1.52	0.99	0.991		