EXHIBIT IN-7-7

TRAPEZOIDAL VEGETATED CHANNEL CHART
C AND D RETARDANCE

VC BASED ON C RETARDANCE
VD BASED ON D RETARDANCE
CAPACITY BASED ON C RETARDANCE

SIDE SLOPE = 8.000 : 1.000

GRADE = 0.200 %

BOTTOM WIDTH	4. FEET			6. FEET			8. FEET			10. FEET			12. FEET			16. FEET		
Q CF/S	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD
5.																		
10.																		
15.																		
20.																		
30.	2.01	0.73	1.05	1.91	0.72	1.04	1.83	0.72	1.02	1.75	0.70	1.01						
40.	2.13	0.91	1.21	2.03	0.90	1.20	1.94	0.88	1.20	1.85	0.86	1.18	1.78	0.84	1.16	1.66	0.81	1.11
50.	2.23	1.03	1.34	2.13	1.03	1.33	2.03	1.02	1.31	1.95	1.00	1.30	1.88	0.99	1.28	1.75	0.96	1.25
60.	2.32	1.16	1.45	2.21	1.15	1.45	2.12	1.14	1.43	2.04	1.13	1.42	1.97	1.12	1.40	1.84	1.08	1.37
70.	2.38	1.27	1.55	2.28	1.26	1.54	2.19	1.25	1.53	2.10	1.24	1.51	2.03	1.22	1.50	1.90	1.18	1.46
80.	2.45	1.36	1.64	2.35	1.36	1.63	2.25	1.35	1.62	2.17	1.34	1.60	2.09	1.33	1.59	1.95	1.29	1.55
90.	2.53	1.46	1.72	2.43	1.45	1.71	2.33	1.44	1.70	2.24	1.43	1.68	2.16	1.41	1.67	2.01	1.37	1.63
100.	2.60	1.54	1.80	2.50	1.53	1.79	2.40	1.52	1.77	2.31	1.51	1.77	2.23	1.50	1.75	2.08	1.46	1.71
120.	2.72	1.70	1.95	2.62	1.70	1.94	2.52	1.69	1.93	2.43	1.67	1.92	2.35	1.66	1.90	2.20	1.62	1.86
140.	2.84	1.82	2.11	2.73	1.82	2.11	2.63	1.81	2.09	2.54	1.80	2.07	2.45	1.78	2.07	2.30	1.76	2.02
160.	2.95	1.94	2.22	2.84	1.93	2.21	2.74	1.92	2.20	2.66	1.92	2.19	2.57	1.90	2.18	2.41	1.87	2.15
180.	3.08	2.08	2.31	2.97	2.07	2.31	2.87	2.06	2.30	2.77	2.04	2.29	2.69	2.04	2.28	2.50	1.97	2.24
200.	3.17	2.18	2.40	3.06	2.17	2.40	2.96	2.16	2.39	2.86	2.15	2.38	2.77	2.14	2.37	2.60	2.10	2.34
220.	3.25	2.29	2.49	3.15	2.28	2.48	3.04	2.27	2.47	2.94	2.26	2.47	2.85	2.24	2.45	2.69	2.21	2.42
240.	3.33	2.39	2.57	3.22	2.38	2.57	3.12	2.37	2.56	3.02	2.37	2.55	2.93	2.35	2.53	2.77	2.32	2.50
260.	3.41	2.48	2.65	3.30	2.47	2.64	3.19	2.47	2.63	3.09	2.46	2.62	3.00	2.45	2.61	2.84	2.41	2.58
280.	3.50	2.55	2.72	3.39	2.54	2.72	3.28	2.54	2.71	3.18	2.53	2.70	3.09	2.52	2.69	2.91	2.49	2.66
300.	3.58	2.61	2.80	3.47	2.60	2.79	3.36	2.60	2.78	3.26	2.59	2.77	3.17	2.58	2.76	2.99	2.55	2.73

EXHIBIT IN-7-7

TRAPEZOIDAL VEGETATED CHANNEL CHART
C AND D RETARDANCE

SIDE SLOPE = 8.000 : 1.000

GRADE = 0.400 %

VC BASED ON C RETARDANCE
VD BASED ON D RETARDANCE
CAPACITY BASED ON C RETARDANCE

BOTTOM WIDTH	4. FEET			6. FEET			8. FEET			10. FEET			12. FEET			16. FEET		
Q CF/S	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD
5.																		
10.																		
15.																		
20.	1.58	0.76	1.15	1.49	0.74	1.14	1.41	0.73	1.11	1.34	0.71	1.09	1.28	0.69	1.04			
30.	1.71	1.00	1.43	1.61	0.98	1.41	1.53	0.96	1.38	1.46	0.94	1.35	1.40	0.92	1.32	1.29	0.87	1.24
40.	1.81	1.19	1.61	1.72	1.18	1.59	1.63	1.16	1.57	1.56	1.14	1.55	1.49	1.12	1.52	1.38	1.07	1.47
50.	1.91	1.38	1.78	1.81	1.36	1.76	1.72	1.34	1.74	1.64	1.32	1.71	1.58	1.30	1.69	1.46	1.25	1.62
60.	1.98	1.53	1.92	1.88	1.52	1.92	1.80	1.50	1.89	1.72	1.47	1.87	1.65	1.45	1.84	1.52	1.38	1.77
70.	2.05	1.68	2.08	1.95	1.67	2.07	1.86	1.65	2.05	1.78	1.62	2.02	1.71	1.60	1.97	1.59	1.55	1.91
80.	2.11	1.82	2.22	2.02	1.81	2.21	1.93	1.80	2.18	1.84	1.76	2.15	1.77	1.74	2.12	1.64	1.68	2.06
90.	2.17	1.92	2.34	2.07	1.91	2.32	1.97	1.89	2.31	1.89	1.87	2.28	1.82	1.86	2.25	1.69	1.80	2.18
100.	2.24	2.05	2.44	2.14	2.04	2.42	2.05	2.03	2.41	1.95	1.98	2.39	1.88	1.96	2.36	1.74	1.90	2.29
120.	2.35	2.27	2.61	2.25	2.26	2.60	2.15	2.24	2.58	2.07	2.21	2.56	1.99	2.18	2.54	1.85	2.12	2.48
140.	2.44	2.46	2.77	2.34	2.46	2.76	2.25	2.44	2.74	2.16	2.42	2.72	2.08	2.39	2.70	1.94	2.32	2.64
160.	2.54	2.64	2.92	2.43	2.63	2.91	2.34	2.62	2.89	2.25	2.59	2.87	2.17	2.57	2.85	2.02	2.50	2.79
180.	2.63	2.78	3.06	2.53	2.77	3.05	2.43	2.75	3.03	2.33	2.74	3.01	2.25	2.71	2.99	2.10	2.67	2.93
200.	2.72	2.91	3.19	2.61	2.90	3.19	2.51	2.89	3.17	2.42	2.87	3.15	2.33	2.84	3.12	2.18	2.79	3.06
220.	2.80	3.02	3.32	2.69	3.01	3.31	2.59	3.00	3.29	2.50	2.99	3.27	2.41	2.97	3.25	2.25	2.92	3.19
240.	2.88	3.13	3.41	2.78	3.12	3.40	2.67	3.11	3.39	2.58	3.09	3.37	2.49	3.07	3.36	2.33	3.03	3.31
260.	2.96	3.23	3.50	2.85	3.22	3.50	2.75	3.21	3.48	2.65	3.20	3.47	2.56	3.18	3.45	2.40	3.13	3.40
280.	3.03	3.33	3.59	2.92	3.32	3.58	2.82	3.31	3.57	2.72	3.29	3.56	2.63	3.28	3.54	2.47	3.23	3.49
300.	3.09	3.43	3.68	2.98	3.42	3.67	2.88	3.41	3.66	2.79	3.39	3.64	2.70	3.37	3.62	2.53	3.33	3.58

EFH Notice IN-31 7/80

EXHIBIT IN-7-7

TRAPEZOIDAL VEGETATED CHANNEL CHART
C AND D RETARDANCE

VC BASED ON C RETARDANCE
VD BASED ON C RETARDANCE
CAPACITY BASED ON C RETARDANCE

SIDE SLOPE = 8.000 : 1.000

GRADE = 0.600 %

BOTTOM WIDTH	4. FEET			6. FEET			8. FEET			10. FEET			12. FEET			16. FEET		
Q CF/S	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD
5.																		
10.																		
15.	1.33	0.78	1.20	1.24	0.77	1.18	1.17	0.75	1.14	1.11	0.73	1.12	1.05	0.69	1.08	0.98	0.64	1.00
20.	1.40	0.93	1.38	1.31	0.91	1.36	1.24	0.89	1.32	1.17	0.87	1.29	1.12	0.84	1.25	1.03	0.79	1.16
30.	1.51	1.23	1.69	1.42	1.22	1.67	1.34	1.19	1.64	1.28	1.16	1.60	1.22	1.13	1.56	1.13	1.06	1.47
40.	1.60	1.49	1.94	1.51	1.47	1.91	1.43	1.44	1.89	1.36	1.40	1.85	1.30	1.37	1.80	1.20	1.30	1.71
50.	1.69	1.68	2.17	1.59	1.66	2.16	1.51	1.64	2.12	1.44	1.62	2.09	1.38	1.59	2.04	1.27	1.53	1.92
60.	1.76	1.87	2.34	1.67	1.85	2.32	1.58	1.82	2.30	1.51	1.79	2.26	1.44	1.76	2.23	1.33	1.68	2.14
70.	1.83	2.08	2.49	1.73	2.04	2.47	1.65	2.03	2.44	1.57	1.97	2.41	1.50	1.94	2.38	1.39	1.86	2.30
80.	1.90	2.23	2.63	1.80	2.21	2.61	1.71	2.18	2.58	1.63	2.15	2.55	1.56	2.11	2.52	1.44	2.02	2.44
90.	1.96	2.38	2.76	1.86	2.35	2.74	1.77	2.33	2.71	1.69	2.30	2.68	1.62	2.26	2.64	1.49	2.17	2.56
100.	2.01	2.51	2.88	1.91	2.50	2.86	1.82	2.47	2.83	1.74	2.43	2.80	1.67	2.40	2.77	1.55	2.32	2.68
120.	2.12	2.76	3.11	2.02	2.74	3.09	1.92	2.72	3.06	1.84	2.69	3.03	1.76	2.66	2.99	1.63	2.58	2.91
140.	2.22	2.95	3.29	2.12	2.94	3.28	2.02	2.91	3.26	1.94	2.89	3.23	1.86	2.85	3.20	1.72	2.79	3.12
160.	2.31	3.14	3.46	2.21	3.12	3.45	2.11	3.10	3.42	2.03	3.07	3.40	1.94	3.04	3.37	1.80	2.97	3.29
180.	2.39	3.31	3.61	2.29	3.30	3.60	2.19	3.27	3.57	2.10	3.25	3.55	2.02	3.21	3.52	1.88	3.14	3.45
200.	2.46	3.49	3.75	2.36	3.47	3.74	2.26	3.45	3.72	2.17	3.42	3.69	2.09	3.38	3.66	1.95	3.31	3.59
220.	2.53	3.65	3.88	2.43	3.63	3.87	2.33	3.61	3.85	2.24	3.58	3.83	2.16	3.55	3.80	2.01	3.47	3.73
240.	2.61	3.77	4.01	2.50	3.76	4.00	2.40	3.74	3.98	2.31	3.72	3.95	2.22	3.69	3.92	2.07	3.62	3.85
260.	2.68	3.88	4.13	2.58	3.87	4.12	2.48	3.85	4.10	2.38	3.83	4.08	2.29	3.81	4.05	2.14	3.75	3.98
280.	2.75	3.98	4.24	2.64	3.97	4.23	2.54	3.96	4.22	2.45	3.94	4.19	2.36	3.91	4.16	2.20	3.85	4.10
300.	2.82	4.08	4.34	2.71	4.07	4.33	2.61	4.05	4.31	2.51	4.03	4.29	2.43	4.01	4.27	2.26	3.95	4.21

EXHIBIT IN-7-7

TRAPEZOIDAL VEGETATED CHANNEL CHART
C AND D RETARDANCE

SIDE SLOPE = 8.000 : 1.000

GRADE = 0.800 %

VC BASED ON C RETARDANCE
VD BASED ON D RETARDANCE
CAPACITY BASED ON C RETARDANCE

BOTTOM WIDTH	4. FEET			6. FEET			8. FEET			10. FEET			12. FEET			16. FEET		
C CF/S	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD
5.																		
10.	1.13	0.68	1.11	1.06	0.67	1.08												
15.	1.22	0.89	1.37	1.14	0.86	1.34	1.07	0.83	1.30	1.01	0.81	1.25	0.96	0.78	1.21	0.89	0.72	1.11
20.	1.29	1.09	1.58	1.21	1.06	1.55	1.13	1.03	1.51	1.07	0.99	1.46	1.02	0.96	1.41	0.94	0.89	1.32
30.	1.40	1.40	1.91	1.32	1.38	1.89	1.24	1.35	1.85	1.18	1.31	1.80	1.12	1.27	1.75	1.03	1.19	1.64
40.	1.49	1.69	2.21	1.40	1.67	2.18	1.32	1.64	2.14	1.26	1.61	2.09	1.20	1.56	2.04	1.11	1.47	1.91
50.	1.57	1.93	2.44	1.48	1.90	2.41	1.39	1.87	2.38	1.32	1.83	2.33	1.26	1.79	2.28	1.17	1.70	2.17
60.	1.64	2.16	2.65	1.54	2.13	2.63	1.46	2.09	2.59	1.39	2.06	2.55	1.33	2.02	2.49	1.22	1.91	2.38
70.	1.71	2.34	2.83	1.62	2.32	2.81	1.53	2.29	2.77	1.46	2.25	2.73	1.39	2.21	2.68	1.27	2.10	2.57
80.	1.77	2.52	2.99	1.68	2.49	2.96	1.59	2.47	2.93	1.52	2.43	2.89	1.45	2.38	2.85	1.33	2.28	2.74
90.	1.83	2.69	3.12	1.73	2.66	3.10	1.64	2.62	3.07	1.57	2.59	3.03	1.50	2.54	2.99	1.38	2.44	2.89
100.	1.88	2.84	3.24	1.78	2.81	3.22	1.70	2.78	3.19	1.62	2.74	3.15	1.55	2.70	3.12	1.43	2.60	3.02
120.	1.98	3.11	3.48	1.88	3.09	3.46	1.79	3.06	3.43	1.71	3.02	3.39	1.63	2.97	3.35	1.51	2.87	3.26
140.	2.06	3.37	3.69	1.96	3.35	3.68	1.87	3.32	3.64	1.79	3.28	3.61	1.71	3.24	3.57	1.59	3.13	3.47
160.	2.16	3.56	3.89	2.05	3.54	3.87	1.96	3.51	3.84	1.87	3.48	3.81	1.79	3.44	3.77	1.66	3.36	3.67
180.	2.24	3.73	4.06	2.14	3.72	4.04	2.04	3.69	4.01	1.95	3.66	3.98	1.87	3.62	3.94	1.73	3.54	3.86
200.	2.32	3.90	4.21	2.21	3.88	4.20	2.12	3.86	4.17	2.03	3.83	4.14	1.95	3.79	4.11	1.80	3.70	4.02
220.	2.39	4.06	4.35	2.28	4.04	4.33	2.19	4.02	4.31	2.10	3.99	4.28	2.01	3.95	4.25	1.87	3.87	4.17
240.	2.45	4.22	4.48	2.35	4.20	4.47	2.25	4.18	4.44	2.16	4.15	4.41	2.08	4.11	4.38	1.93	4.02	4.31
260.	2.51	4.37	4.60	2.41	4.35	4.59	2.31	4.33	4.57	2.22	4.30	4.54	2.14	4.26	4.51	1.99	4.17	4.43
280.	2.57	4.51	4.72	2.47	4.49	4.71	2.37	4.47	4.69	2.28	4.44	4.66	2.19	4.40	4.63	2.04	4.31	4.55
300.	2.63	4.62	4.84	2.53	4.61	4.82	2.43	4.59	4.80	2.33	4.56	4.78	2.25	4.53	4.74	2.10	4.46	4.67

EXHIBIT IN-7-7

TRAPEZOIDAL VEGETATED CHANNEL CHART
C AND D RETARDANCE

SIDE SLOPE = 8.000 : 1.000

GRADE = 1.000 %

VC BASED ON C RETARDANCE
VD BASED ON C RETARDANCE
CAPACITY BASED ON C RETARDANCE

BOTTOM WIDTH	4. FEET			6. FEET			8. FEET			10. FEET			12. FEET			16. FEET		
C CFS	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD
5.																		
10.	1.03	0.77	1.23	0.97	0.74	1.20	0.91	0.72	1.16	0.86	0.69	1.11	0.82	0.65	1.05			
15.	1.12	1.03	1.52	1.04	1.00	1.48	0.98	0.96	1.43	0.92	0.92	1.36	0.88	0.89	1.31	0.81	0.81	1.22
20.	1.19	1.26	1.76	1.10	1.23	1.73	1.03	1.19	1.68	0.97	1.15	1.61	0.92	1.10	1.54	0.86	1.01	1.42
30.	1.29	1.63	2.17	1.21	1.61	2.12	1.13	1.57	2.08	1.07	1.53	2.00	1.01	1.49	1.92	0.93	1.35	1.81
40.	1.38	1.93	2.45	1.29	1.90	2.42	1.22	1.87	2.38	1.15	1.82	2.33	1.10	1.78	2.28	1.00	1.66	2.14
50.	1.46	2.22	2.69	1.36	2.19	2.66	1.28	2.14	2.61	1.22	2.10	2.57	1.16	2.03	2.51	1.07	1.91	2.39
60.	1.53	2.44	2.91	1.44	2.42	2.87	1.36	2.38	2.83	1.29	2.34	2.78	1.22	2.29	2.73	1.12	2.17	2.60
70.	1.61	2.66	3.11	1.50	2.63	3.08	1.42	2.58	3.04	1.35	2.54	2.98	1.28	2.48	2.92	1.18	2.37	2.80
80.	1.65	2.85	3.31	1.56	2.83	3.27	1.47	2.79	3.23	1.40	2.74	3.17	1.34	2.69	3.11	1.23	2.57	2.98
90.	1.72	3.02	3.47	1.62	2.99	3.44	1.53	2.95	3.41	1.45	2.91	3.35	1.38	2.86	3.29	1.27	2.75	3.16
100.	1.77	3.17	3.60	1.67	3.14	3.57	1.59	3.10	3.54	1.51	3.06	3.50	1.44	3.02	3.45	1.32	2.91	3.33
120.	1.87	3.45	3.84	1.77	3.43	3.81	1.68	3.39	3.78	1.60	3.34	3.74	1.53	3.30	3.69	1.41	3.18	3.59
140.	1.95	3.72	4.05	1.85	3.70	4.03	1.76	3.66	4.00	1.68	3.61	3.96	1.61	3.56	3.91	1.48	3.44	3.81
160.	2.03	3.98	4.25	1.93	3.95	4.23	1.84	3.92	4.20	1.75	3.87	4.16	1.68	3.81	4.12	1.55	3.69	4.01
180.	2.11	4.17	4.44	2.01	4.15	4.42	1.91	4.12	4.39	1.82	4.08	4.35	1.75	4.04	4.31	1.61	3.93	4.20
200.	2.19	4.33	4.62	2.08	4.31	4.60	1.99	4.28	4.57	1.90	4.25	4.53	1.82	4.21	4.48	1.68	4.12	4.38
220.	2.26	4.49	4.79	2.15	4.47	4.77	2.06	4.44	4.74	1.97	4.41	4.70	1.89	4.37	4.66	1.75	4.28	4.55
240.	2.33	4.65	4.92	2.22	4.63	4.90	2.12	4.59	4.88	2.04	4.56	4.85	1.95	4.53	4.81	1.81	4.43	4.71
260.	2.39	4.79	5.04	2.28	4.77	5.03	2.19	4.75	5.00	2.10	4.71	4.97	2.01	4.67	4.94	1.87	4.58	4.85
280.	2.46	4.93	5.17	2.34	4.91	5.15	2.25	4.89	5.12	2.16	4.86	5.09	2.07	4.81	5.06	1.92	4.72	4.98
300.	2.51	5.07	5.28	2.40	5.04	5.26	2.30	5.02	5.24	2.21	4.99	5.21	2.12	4.94	5.18	1.98	4.86	5.09

EXHIBIT IN-7-7

TRAPEZOIDAL VEGETATED CHANNEL CHART
C AND D RETARDANCE

SIDE SLOPE = 8.000 : 1.000

GRADE = 1.500 %

VC BASED ON C RETARDANCE
VD BASED ON D RETARDANCE
CAPACITY BASED ON C RETARDANCE

BOTTOM WIDTH	4. FEET			6. FEET			8. FEET			10. FEET			12. FEET			16. FEET		
C CF/S	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD
5.																		
10.	0.95	0.90	1.46	0.87	0.86	1.42	0.82	0.83	1.35	0.77	0.79	1.29						
15.	1.02	1.20	1.80	0.94	1.17	1.74	0.88	1.12	1.68	0.83	1.06	1.61	0.79	1.03	1.55	0.73	0.92	1.42
20.	1.08	1.46	2.11	1.00	1.42	2.05	0.93	1.37	1.96	0.88	1.32	1.89	0.83	1.27	1.81	0.77	1.16	1.66
30.	1.17	1.93	2.55	1.08	1.89	2.50	1.01	1.84	2.43	0.96	1.76	2.37	0.91	1.69	2.29	0.84	1.56	2.12
40.	1.25	2.32	2.90	1.16	2.28	2.85	1.09	2.20	2.78	1.03	2.16	2.71	0.98	2.07	2.63	0.90	1.94	2.48
50.	1.33	2.61	3.20	1.24	2.58	3.15	1.16	2.53	3.09	1.09	2.47	3.02	1.04	2.40	2.94	0.95	2.24	2.78
60.	1.40	2.89	3.45	1.30	2.84	3.41	1.23	2.80	3.35	1.16	2.73	3.28	1.10	2.66	3.20	1.00	2.52	3.05
70.	1.45	3.13	3.66	1.36	3.10	3.62	1.28	3.04	3.57	1.21	2.98	3.51	1.15	2.91	3.44	1.06	2.75	3.28
80.	1.51	3.34	3.86	1.42	3.31	3.82	1.34	3.26	3.77	1.27	3.20	3.70	1.20	3.13	3.63	1.10	2.98	3.49
90.	1.56	3.55	4.04	1.47	3.51	4.00	1.39	3.45	3.95	1.32	3.40	3.89	1.25	3.33	3.82	1.14	3.18	3.67
100.	1.61	3.74	4.22	1.52	3.70	4.18	1.43	3.65	4.13	1.36	3.59	4.06	1.29	3.52	3.99	1.19	3.36	3.84
120.	1.70	4.08	4.53	1.60	4.04	4.49	1.52	4.00	4.45	1.44	3.95	4.39	1.37	3.88	4.32	1.26	3.72	4.16
140.	1.79	4.36	4.79	1.69	4.32	4.76	1.60	4.27	4.71	1.52	4.22	4.66	1.45	4.16	4.60	1.33	4.03	4.45
160.	1.86	4.61	5.02	1.77	4.58	4.99	1.68	4.54	4.95	1.60	4.48	4.90	1.52	4.42	4.84	1.40	4.29	4.70
180.	1.93	4.87	5.22	1.83	4.83	5.19	1.74	4.78	5.15	1.66	4.73	5.10	1.59	4.67	5.05	1.46	4.53	4.92
200.	2.00	5.10	5.41	1.89	5.07	5.38	1.80	5.02	5.34	1.72	4.97	5.30	1.65	4.90	5.24	1.52	4.76	5.11
220.	2.06	5.33	5.59	1.96	5.30	5.56	1.86	5.25	5.53	1.78	5.20	5.48	1.70	5.14	5.43	1.57	4.99	5.30
240.	2.12	5.49	5.77	2.02	5.47	5.74	1.92	5.44	5.70	1.83	5.39	5.65	1.76	5.34	5.60	1.62	5.20	5.47
260.	2.19	5.64	5.93	2.08	5.62	5.90	1.98	5.58	5.87	1.90	5.55	5.82	1.81	5.49	5.76	1.67	5.39	5.64
280.	2.25	5.79	6.08	2.13	5.75	6.06	2.04	5.72	6.02	1.95	5.69	5.98	1.87	5.64	5.93	1.73	5.54	5.80
300.	2.23	5.86	6.22	2.17	5.83	6.20	2.09	5.83	6.16	2.00	5.81	6.13	1.93	5.78	6.08	1.78	5.68	5.95

EXHIBIT IN-7-7

TRAPEZOIDAL VEGETATED CHANNEL CHART
C AND D RETARDANCE

VC BASED ON C RETARDANCE
VD BASED ON C RETARDANCE
CAPACITY BASED ON C RETARDANCE

SIDE SLOPE = 8.000 : 1.000

GRADE = 2.000 %

BOTTOM WIDTH	4. FEET			6. FEET			8. FEET			10. FEET			12. FEET			16. FEET		
C CFS	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD
5.	0.76	0.67	1.15	0.69	0.63	1.09	0.64	0.60	1.02									
10.	0.94	1.08	1.66	0.78	1.04	1.61	0.72	0.99	1.53	0.68	0.95	1.46	0.64	0.89	1.39	0.60	0.80	1.23
15.	0.91	1.47	2.10	0.83	1.42	2.02	0.78	1.35	1.92	0.73	1.28	1.81	0.70	1.21	1.72	0.64	1.09	1.58
20.	0.96	1.79	2.42	0.89	1.73	2.34	0.82	1.65	2.26	0.78	1.57	2.18	0.74	1.50	2.08	0.68	1.37	1.87
30.	1.06	2.27	2.92	0.98	2.21	2.86	0.91	2.14	2.79	0.86	2.07	2.70	0.81	2.00	2.59	0.74	1.85	2.40
40.	1.14	2.72	3.28	1.05	2.67	3.22	0.99	2.59	3.15	0.93	2.50	3.07	0.88	2.39	2.98	0.80	2.22	2.81
50.	1.21	3.06	3.60	1.13	3.01	3.54	1.05	2.94	3.47	0.99	2.86	3.38	0.94	2.78	3.30	0.85	2.59	3.11
60.	1.27	3.39	3.90	1.18	3.33	3.84	1.11	3.26	3.76	1.05	3.17	3.68	0.99	3.09	3.58	0.91	2.90	3.39
70.	1.34	3.68	4.18	1.24	3.59	4.12	1.17	3.53	4.04	1.10	3.46	3.95	1.04	3.37	3.85	0.95	3.17	3.65
80.	1.40	3.95	4.39	1.30	3.80	4.34	1.22	3.75	4.28	1.15	3.68	4.21	1.09	3.60	4.11	0.99	3.45	3.90
90.	1.45	4.05	4.58	1.36	4.01	4.53	1.28	3.95	4.47	1.20	3.88	4.40	1.14	3.80	4.32	1.04	3.64	4.14
100.	1.50	4.25	4.75	1.41	4.20	4.71	1.32	4.14	4.65	1.25	4.07	4.58	1.19	4.00	4.50	1.08	3.83	4.33
120.	1.59	4.62	5.08	1.49	4.57	5.03	1.41	4.51	4.98	1.33	4.44	4.91	1.27	4.36	4.83	1.16	4.18	4.66
140.	1.66	4.97	5.38	1.56	4.92	5.33	1.48	4.85	5.28	1.40	4.79	5.21	1.34	4.70	5.13	1.22	4.51	4.96
160.	1.73	5.25	5.66	1.64	5.21	5.61	1.55	5.16	5.56	1.47	5.10	5.49	1.40	5.03	5.41	1.28	4.84	5.24
180.	1.81	5.50	5.91	1.71	5.46	5.87	1.62	5.41	5.82	1.54	5.35	5.75	1.46	5.28	5.67	1.34	5.12	5.50
200.	1.87	5.74	6.11	1.77	5.71	6.07	1.68	5.65	6.03	1.60	5.59	5.97	1.52	5.52	5.91	1.40	5.36	5.74
220.	1.93	5.97	6.30	1.83	5.93	6.27	1.74	5.88	6.22	1.65	5.81	6.17	1.58	5.74	6.10	1.45	5.59	5.96
240.	1.99	6.19	6.48	1.88	6.14	6.45	1.79	6.10	6.40	1.71	6.04	6.35	1.63	5.96	6.29	1.50	5.81	6.14
260.	2.04	6.40	6.65	1.93	6.34	6.62	1.84	6.30	6.58	1.76	6.24	6.52	1.68	6.18	6.46	1.55	6.01	6.32
280.	2.07	6.54	6.81	1.97	6.49	6.78	1.89	6.49	6.75	1.80	6.44	6.69	1.72	6.35	6.63	1.59	6.21	6.49
300.	2.12	6.66	6.98	2.01	6.64	6.94	1.92	6.61	6.90	1.83	6.56	6.85	1.75	6.49	6.79	1.64	6.41	6.65

EXHIBIT IN-7-7

TRAPEZOIDAL VEGETATED CHANNEL CHART
C AND D RETARDANCE

SIDE SLOPE = 8.000 : 1.000

GRADE = 2.500 %

VC BASED ON C RETARDANCE
VD BASED ON C RETARDANCE
CAPACITY BASED ON C RETARDANCE

BOTTOM WIDTH	4. FEET			6. FEET			8. FEET			10. FEET			12. FEET			16. FEET		
Q CF/S	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD
5.	0.71	0.73	1.27	0.65	0.70	1.19												
10.	0.80	1.20	1.84	0.73	1.15	1.76	0.68	1.08	1.68	0.64	1.01	1.58	0.61	0.96	1.49	0.56	0.86	1.34
15.	0.86	1.59	2.30	0.79	1.53	2.21	0.73	1.46	2.10	0.69	1.38	1.99	0.66	1.30	1.88	0.60	1.18	1.71
20.	0.91	1.94	2.67	0.84	1.88	2.58	0.78	1.81	2.48	0.73	1.70	2.37	0.69	1.62	2.25	0.64	1.46	2.05
30.	1.01	2.52	3.20	0.92	2.46	3.12	0.86	2.38	3.03	0.81	2.26	2.92	0.76	2.16	2.81	0.70	1.97	2.61
40.	1.08	2.97	3.61	1.00	2.91	3.54	0.93	2.81	3.45	0.88	2.72	3.35	0.83	2.62	3.25	0.76	2.44	3.03
50.	1.15	3.37	3.97	1.06	3.31	3.90	0.99	3.23	3.81	0.93	3.12	3.71	0.88	3.02	3.60	0.81	2.81	3.39
60.	1.21	3.69	4.28	1.12	3.63	4.22	1.05	3.55	4.14	0.99	3.46	4.04	0.93	3.37	3.92	0.85	3.15	3.70
70.	1.27	3.98	4.55	1.18	3.92	4.49	1.10	3.84	4.40	1.04	3.75	4.31	0.98	3.65	4.21	0.89	3.45	3.99
80.	1.32	4.24	4.80	1.23	4.19	4.74	1.15	4.12	4.66	1.08	4.03	4.56	1.03	3.92	4.46	0.94	3.71	4.25
90.	1.37	4.48	5.02	1.28	4.42	4.96	1.20	4.35	4.89	1.13	4.26	4.80	1.07	4.17	4.70	0.97	3.96	4.48
100.	1.41	4.70	5.21	1.32	4.64	5.16	1.24	4.57	5.09	1.17	4.49	5.00	1.11	4.39	4.91	1.01	4.18	4.70
120.	1.50	5.08	5.57	1.41	5.03	5.52	1.32	4.97	5.45	1.25	4.89	5.37	1.19	4.81	5.28	1.08	4.59	5.08
140.	1.58	5.42	5.89	1.48	5.37	5.85	1.40	5.31	5.79	1.32	5.23	5.70	1.26	5.14	5.61	1.15	4.95	5.41
160.	1.65	5.75	6.17	1.55	5.70	6.12	1.47	5.62	6.06	1.39	5.54	5.99	1.32	5.46	5.91	1.21	5.26	5.72
180.	1.72	6.03	6.43	1.62	5.99	6.38	1.53	5.92	6.32	1.45	5.85	6.25	1.38	5.76	6.17	1.26	5.56	5.99
200.	1.78	6.28	6.66	1.68	6.23	6.62	1.59	6.18	6.56	1.51	6.11	6.49	1.44	6.02	6.41	1.32	5.84	6.23
220.	1.83	6.53	6.87	1.74	6.49	6.83	1.64	6.42	6.78	1.56	6.35	6.71	1.49	6.28	6.64	1.37	6.08	6.46
240.	1.89	6.75	7.06	1.79	6.69	7.02	1.70	6.65	6.98	1.62	6.60	6.91	1.54	6.50	6.84	1.41	6.32	6.68
260.	1.92	6.86	7.25	1.82	6.81	7.21	1.74	6.81	7.16	1.66	6.78	7.10	1.59	6.70	7.02	1.46	6.53	6.86
280.	1.97	7.04	7.43	1.87	7.01	7.38	1.78	6.97	7.34	1.69	6.89	7.28	1.62	6.81	7.21	1.51	6.75	7.05
300.	2.02	7.21	7.60	1.92	7.18	7.56	1.83	7.14	7.51	1.74	7.07	7.45	1.67	7.01	7.39	1.53	6.85	7.22

EFM NOTICE IN-34 //80

EXHIBIT IN-7-7

TRAPEZOIDAL VEGETATED CHANNEL CHART
C AND D RETARDANCE

VC BASED ON C RETARDANCE
VD BASED ON D RETARDANCE
CAPACITY BASED ON C RETARDANCE

SIDE SLOPE = 8.000 : 1.000

GRADE = 3.000 %

BOTTOM WIDTH	4. FEET			6. FEET			8. FEET			10. FEET			12. FEET			16. FEET		
Q CF/S	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD
5.	0.67	0.81	1.38	0.61	0.76	1.29	0.57	0.70	1.20	0.53	0.66	1.12	0.50	0.61	1.04			
10.	0.76	1.29	1.99	0.69	1.23	1.88	0.64	1.18	1.80	0.60	1.11	1.69	0.57	1.04	1.61	0.53	0.93	1.42
15.	0.81	1.73	2.50	0.75	1.66	2.41	0.69	1.59	2.29	0.65	1.49	2.15	0.62	1.40	2.03	0.57	1.26	1.82
20.	0.86	2.15	2.88	0.79	2.08	2.78	0.73	1.94	2.66	0.69	1.84	2.55	0.66	1.75	2.43	0.60	1.58	2.19
30.	0.95	2.74	3.45	0.88	2.66	3.37	0.82	2.56	3.27	0.77	2.45	3.16	0.72	2.34	3.04	0.66	2.15	2.78
40.	1.03	3.24	3.89	0.95	3.17	3.81	0.88	3.08	3.71	0.82	2.97	3.60	0.78	2.84	3.48	0.71	2.59	3.26
50.	1.09	3.66	4.29	1.01	3.59	4.21	0.94	3.49	4.10	0.88	3.38	3.98	0.83	3.26	3.86	0.76	3.05	3.62
60.	1.15	4.02	4.66	1.06	3.96	4.57	0.99	3.87	4.47	0.93	3.75	4.34	0.88	3.63	4.21	0.80	3.39	3.96
70.	1.21	4.31	4.94	1.12	4.25	4.87	1.05	4.16	4.79	0.98	4.07	4.68	0.93	3.97	4.55	0.84	3.72	4.28
80.	1.26	4.58	5.18	1.17	4.52	5.12	1.10	4.43	5.03	1.03	4.34	4.94	0.97	4.23	4.83	0.88	4.01	4.58
90.	1.31	4.84	5.40	1.22	4.78	5.34	1.14	4.69	5.26	1.07	4.58	5.16	1.02	4.48	5.06	0.92	4.25	4.84
100.	1.35	5.09	5.62	1.26	5.02	5.56	1.18	4.93	5.47	1.11	4.83	5.38	1.06	4.72	5.27	0.96	4.48	5.05
120.	1.43	5.56	6.01	1.34	5.49	5.95	1.25	5.40	5.87	1.18	5.29	5.77	1.12	5.17	5.67	1.02	4.93	5.44
140.	1.51	5.91	6.37	1.41	5.86	6.31	1.32	5.79	6.23	1.25	5.71	6.14	1.18	5.61	6.03	1.08	5.34	5.80
160.	1.56	6.22	6.68	1.48	6.17	6.63	1.39	6.09	6.56	1.32	6.02	6.47	1.25	5.93	6.36	1.14	5.72	6.13
180.	1.64	6.51	6.93	1.55	6.46	6.88	1.46	6.38	6.82	1.38	6.31	6.74	1.31	6.21	6.66	1.19	6.00	6.45
200.	1.70	6.77	7.16	1.60	6.72	7.11	1.52	6.66	7.06	1.44	6.57	6.98	1.37	6.48	6.90	1.25	6.28	6.70
220.	1.76	7.03	7.38	1.66	6.98	7.33	1.57	6.93	7.28	1.49	6.84	7.20	1.42	6.74	7.12	1.30	6.53	6.93
240.	1.80	7.22	7.59	1.71	7.22	7.54	1.62	7.16	7.49	1.54	7.07	7.41	1.47	6.99	7.33	1.34	6.78	7.15
260.	1.84	7.44	7.78	1.74	7.40	7.74	1.65	7.31	7.69	1.57	7.22	7.61	1.51	7.22	7.53	1.39	7.01	7.35
280.	1.89	7.61	7.96	1.79	7.58	7.93	1.70	7.53	7.87	1.62	7.47	7.81	1.54	7.39	7.72	1.42	7.22	7.54
300.										1.66	7.63	7.99	1.58	7.55	7.91	1.46	7.40	7.72

EXHIBIT IN-7-7

TRAPEZOIDAL VEGETATED CHANNEL CHART
C AND D RETARDANCE

VC BASED ON C RETARDANCE
VD BASED ON C RETARDANCE
CAPACITY BASED ON C RETARDANCE

SIDE SLOPE = 8.000 : 1.000

GRADE = 4.000 %

BOTTOM WIDTH	4. FEET			6. FEET			8. FEET			10. FEET			12. FEET			16. FEET		
C CFS	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD
5.	0.62	0.93	1.55															
10.	0.70	1.50	2.26	0.63	1.40	2.14	0.59	1.32	2.01	0.55	1.23	1.88	0.52	1.17	1.76	0.48	1.03	1.58
15.	0.76	1.94	2.80	0.69	1.86	2.67	0.64	1.77	2.54	0.60	1.67	2.40	0.57	1.58	2.27	0.52	1.40	2.02
20.	0.81	2.36	3.22	0.74	2.28	3.11	0.69	2.20	2.98	0.65	2.07	2.82	0.61	1.96	2.68	0.56	1.74	2.42
30.	0.89	3.10	3.87	0.81	3.01	3.77	0.75	2.89	3.63	0.70	2.75	3.49	0.67	2.61	3.35	0.61	2.33	3.09
40.	0.96	3.67	4.38	0.88	3.57	4.27	0.81	3.45	4.15	0.76	3.31	4.01	0.72	3.17	3.87	0.66	2.92	3.58
50.	1.02	4.13	4.82	0.93	4.04	4.72	0.87	3.93	4.59	0.81	3.79	4.45	0.77	3.64	4.30	0.70	3.37	4.02
60.	1.07	4.53	5.19	0.99	4.44	5.09	0.92	4.32	4.97	0.86	4.19	4.84	0.81	4.06	4.70	0.74	3.78	4.39
70.	1.12	4.90	5.52	1.04	4.81	5.43	0.97	4.69	5.31	0.91	4.55	5.17	0.86	4.41	5.03	0.78	4.13	4.75
80.	1.17	5.23	5.81	1.08	5.14	5.73	1.01	5.04	5.62	0.95	4.90	5.49	0.89	4.75	5.34	0.81	4.45	5.05
90.	1.21	5.50	6.07	1.13	5.43	5.99	1.05	5.33	5.89	0.98	5.20	5.77	0.93	5.07	5.63	0.85	4.76	5.33
100.	1.26	5.75	6.32	1.17	5.67	6.24	1.09	5.58	6.13	1.02	5.47	6.01	0.97	5.35	5.88	0.88	5.05	5.60
120.	1.34	6.21	6.75	1.25	6.14	6.68	1.17	6.04	6.59	1.10	5.92	6.46	1.04	5.80	6.33	0.94	5.53	6.06
140.	1.41	6.65	7.12	1.31	6.58	7.05	1.23	6.46	6.96	1.16	6.35	6.85	1.10	6.22	6.73	1.00	5.95	6.46
160.	1.47	7.03	7.46	1.38	6.97	7.39	1.29	6.87	7.31	1.22	6.75	7.20	1.16	6.62	7.08	1.05	6.34	6.82
180.	1.53	7.35	7.78	1.43	7.29	7.72	1.35	7.20	7.63	1.28	7.11	7.52	1.21	6.98	7.40	1.10	6.71	7.14
200.				1.49	7.57	7.99	1.41	7.51	7.92	1.33	7.41	7.82	1.26	7.31	7.71	1.15	7.04	7.45
220.													1.32	7.57	7.97	1.19	7.34	7.73
240.																1.24	7.59	7.98
260.																		
280.																		
300.																		

EXHIBIT IN-7-7

TRAPEZOIDAL VEGETATED CHANNEL CHART
C AND D RETARDANCE

VC BASED ON C RETARDANCE
VD BASED ON D RETARDANCE
CAPACITY BASED ON C RETARDANCE

SIDE SLOPE = 8.000 : 1.000

GRADE = 6.000 %

BOTTOM WIDTH	4. FEET			6. FEET			8. FEET			10. FEET			12. FEET			16. FEET		
Q CF/S	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD
5.	0.54	1.12	1.87	0.48	1.04	1.72	0.45	0.95	1.58									
10.	0.60	1.84	2.71	0.55	1.74	2.55	0.50	1.62	2.39	0.47	1.53	2.23	0.45	1.41	2.08	0.42	1.21	1.83
15.	0.66	2.46	3.36	0.60	2.35	3.19	0.55	2.19	3.00	0.52	2.04	2.82	0.49	1.90	2.65	0.45	1.67	2.36
20.	0.71	2.93	3.83	0.65	2.80	3.68	0.60	2.67	3.51	0.56	2.51	3.33	0.52	2.37	3.14	0.48	2.09	2.81
30.	0.79	3.73	4.58	0.72	3.60	4.44	0.67	3.45	4.28	0.62	3.29	4.09	0.59	3.12	3.91	0.53	2.81	3.57
40.	0.85	4.42	5.19	0.78	4.30	5.04	0.72	4.12	4.87	0.67	3.93	4.69	0.64	3.75	4.51	0.58	3.40	4.17
50.	0.91	4.97	5.69	0.83	4.83	5.56	0.77	4.67	5.41	0.72	4.50	5.22	0.68	4.33	5.02	0.62	3.94	4.66
60.	0.96	5.43	6.13	0.88	5.32	6.00	0.81	5.17	5.84	0.76	4.98	5.66	0.72	4.79	5.48	0.65	4.44	5.11
70.	1.01	5.84	6.50	0.93	5.72	6.39	0.86	5.57	6.24	0.80	5.41	6.06	0.76	5.24	5.88	0.68	4.86	5.51
80.	1.05	6.23	6.83	0.97	6.11	6.72	0.90	5.95	6.57	0.84	5.78	6.41	0.79	5.60	6.24	0.72	5.25	5.86
90.	1.09	6.57	7.13	1.01	6.46	7.02	0.94	6.32	6.88	0.88	6.13	6.72	0.83	5.95	6.55	0.75	5.58	6.20
100.	1.13	6.88	7.42	1.05	6.77	7.31	0.97	6.63	7.17	0.91	6.46	7.01	0.86	6.29	6.84	0.78	5.90	6.49
120.	1.21	7.44	7.94	1.12	7.34	7.84	1.04	7.20	7.71	0.97	7.04	7.55	0.92	6.86	7.37	0.83	6.50	7.01
140.													0.98	7.38	7.85	0.88	7.01	7.49
160.																0.93	7.47	7.93
180.																		
200.																		
220.																		
240.																		
260.																		
280.																		
300.																		

EXHIBIT IN-7-7

TRAPEZOIDAL VEGETATED CHANNEL CHART
C AND D RETARDANCE

VC BASED ON C RETARDANCE
VD BASED ON C RETARDANCE
CAPACITY BASED ON C RETARDANCE

SIDE SLOPE = 8.000 : 1.000

GRADE = 8.000 %

BOTTOM WIDTH	4. FEET			6. FEET			8. FEET			10. FEET			12. FEET			16. FEET		
Q CFS	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD
5.	0.49	1.27	2.11	0.44	1.16	1.90	0.41	1.08	1.73	0.38	0.99	1.59						
10.	0.56	2.10	3.07	0.50	1.96	2.88	0.47	1.82	2.67	0.44	1.68	2.49	0.41	1.56	2.32	0.39	1.35	2.00
15.	0.61	2.83	3.79	0.55	2.63	3.59	0.50	2.46	3.38	0.47	2.28	3.15	0.45	2.12	2.95	0.41	1.84	2.63
20.	0.65	3.37	4.36	0.59	3.23	4.16	0.54	3.03	3.94	0.51	2.85	3.72	0.48	2.61	3.51	0.44	2.33	3.13
30.	0.73	4.28	5.18	0.66	4.10	5.00	0.61	3.90	4.79	0.57	3.71	4.59	0.53	3.51	4.39	0.48	3.16	3.97
40.	0.79	5.00	5.87	0.72	4.84	5.69	0.66	4.65	5.47	0.61	4.45	5.25	0.58	4.23	5.03	0.53	3.81	4.64
50.	0.84	5.64	6.44	0.77	5.47	6.27	0.71	5.26	6.06	0.66	5.05	5.84	0.62	4.83	5.62	0.56	4.42	5.18
60.	0.89	6.13	6.91	0.82	5.98	6.76	0.75	5.80	6.58	0.70	5.60	6.35	0.66	5.38	6.12	0.60	4.94	5.69
70.	0.94	6.60	7.31	0.86	6.44	7.16	0.79	6.25	6.99	0.74	6.05	6.79	0.70	5.84	6.59	0.63	5.42	6.13
80.	0.98	7.01	7.67	0.90	6.87	7.53	0.83	6.69	7.36	0.78	6.47	7.16	0.73	6.25	6.96	0.66	5.83	6.55
90.				0.94	7.24	7.88	0.87	7.07	7.71	0.81	6.87	7.51	0.76	6.65	7.30	0.69	6.21	6.90
100.										0.84	7.22	7.83	0.79	7.01	7.63	0.71	6.56	7.21
120.																0.77	7.21	7.80
140.																		
160.																		
180.																		
200.																		
220.																		
240.																		
260.																		
280.																		
300.																		

(sheet 12 of 13)

EXHIBIT IN-7-7

TRAPEZOIDAL VEGETATED CHANNEL CHART
C AND D RETARDANCE

SIDE SLOPE = 8.000 : 1.000

GRADE = 10.000 %

VC BASED ON C RETARDANCE
VD BASED ON D RETARDANCE
CAPACITY BASED ON C RETARDANCE

BOTTOM WIDTH	4. FEET			6. FEET			8. FEET			10. FEET			12. FEET			16. FEET		
Q CF/S	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD	DEPTH	VC	VD
5.	0.45	1.48	2.31	0.40	1.34	2.11	0.37	1.21	1.91	0.35	1.09	1.75	0.34	1.01	1.62			
10.	0.52	2.37	3.39	0.47	2.18	3.15	0.43	2.00	2.90	0.40	1.84	2.68	0.38	1.70	2.50	0.35	1.49	2.19
15.	0.57	3.09	4.15	0.52	2.90	3.91	0.47	2.68	3.67	0.44	2.49	3.44	0.42	2.33	3.21	0.38	2.01	2.92
20.	0.61	3.71	4.75	0.56	3.51	4.55	0.51	3.27	4.28	0.48	3.08	4.03	0.45	2.87	3.79	0.41	2.50	3.40
30.	0.69	4.76	5.66	0.61	4.57	5.44	0.56	4.35	5.20	0.53	4.09	4.96	0.50	3.84	4.73	0.46	3.40	4.36
40.	0.74	5.59	6.44	0.67	5.37	6.22	0.62	5.13	5.96	0.57	4.88	5.70	0.54	4.64	5.45	0.49	4.19	5.09
50.	0.80	6.18	7.07	0.72	6.01	6.89	0.66	5.80	6.65	0.61	5.58	6.37	0.56	5.31	6.10	0.52	4.82	5.60
60.	0.84	6.72	7.55	0.77	6.55	7.37	0.71	6.33	7.17	0.66	6.11	6.94	0.61	5.88	6.69	0.55	5.40	6.16
70.	0.89	7.24	7.99	0.81	7.06	7.82	0.75	6.84	7.61	0.69	6.60	7.38	0.65	6.36	7.15	0.58	5.90	6.68
80.										0.73	7.06	7.79	0.68	6.81	7.56	0.62	6.32	7.10
90.													0.71	7.25	7.93	0.64	6.73	7.47
100.																0.67	7.12	7.82
120.																		
140.																		
160.																		
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