

Missouri River Region - Water Management Information

U. S. Army Corps of Engineers - Civil Works

Discharge Measurements For January 1998

COE Discharge	Difference	Station	Date	Time	Gage Height	Measured Discharge	Water Temp (F)	Remarks	% Diff
28,600	-200	SUX	1-5-98	11:45	13.05	28,800	33	Air Temp 31	1%
37,500	+200	NCNE	1-7-98	10:00	9.96	37,300	34	Air Temp 33	1%
29,900	-800	OMA	1-7-98	11:00	15.24	30,700	35	Air Temp 34	3%
41,300	-400	RUNE	1-8-98	11:15	9.57	41,700	34	Air Temp 33	1%
24,600	+ 800	OMA	1-20-98	11:00	13.38	25,400	34	Air Temp 28 - Little Shore Ice	3%
33,500	-3,200	NCNE	1-22-98	10:45	8.58	30,300	33	Air Temp 31 - Little Shore Ice	10%
41,700	-3,400	MKC	1-21-98	---	11.51	38,300	32	---	9%
35,300	-1,100	STJ	1-22-98	---	7.63	34,200	32	---	3%
26,300	-200	SUX	1-23-98	12:15	12.67	26,100	32	Air Temp 31	1%
36,100	-2,600	RUNE	1-23-98	11:45	8.21	33,500	35	Air Temp 29 Clear No Ice	9%
45,600	+200	BNMO	1-23-98	12:00	8.06	45,800	32	---	1%
28,400	-300	SUX	1-26-98	11:45	13.26	28,100	35	Slush ice - some ice cakes AT = 35	2%
26,900	-700	DENE	1-26-98	11:00	21.10	26,200	33	20% ice cover - shore ice AT = 33	3%
30,700	-3,000	OMA	1-27-98	12:15	14.95	27,700	33	AT = 31	10%
33,800	+1,000	NCNE	1-28-98	10:45	9.46	34,800	39	AT = 48	3%
39,000	+1,900	RUNE	1-29-98	11:40	9.48	40,900	50	AT = 63	5%

Discharge Measurements For February 1998

COE Discharge	Difference	Station	Date	Time	Gage Height	Measured Discharge	Water Temp (F)	Remarks	% Diff
28,700	-900	SUX	2-2-98	10:30	13.30	27,800	41	AT = 39	4%
30,600	+1,000	OMA	2-2-98	11:30	15.35	31,600	36	AT = 39	4%
46,400	0	NCNE	2-2-98	10:30	11.68	46,400	35	AT = 34	0%
53,500	+3,600	MKC	2-2-98	8:00	14.57	57,100	36	---	7%
29,700	-1,100	OMA	2-9-98	14:15	15.00	28,600	35	AT = 53	4%
29,200	-1,100	SUX	2-10-98	11:14	13.44	28,100	37	AT = 36	4%
42,400	-1,100	NCNE	2-11-98	09:30	10.75	41,300	37	AT = 32	3%
46,200	+1,600	RUNE	2-12-98	10:55	11.03	47,800	43	AT = 43	4%
28,200	-600	DENE	2-13-98	10:30	21.48	28,800	39	AT = 41	2%
31,400	-3,200	SUX	2-17-98	10:25	13.69	28,200	34	AT = 35	10%
30,100	+900	OMA	2-17-98	10:45	15.45	31,000	42	AT = 41	3%
41,500	-1,500	NCNE	2-18-98	11:00	10.54	39,000	43	AT = 45	6%
43,700	+2,700	RUNE	2-20-98	11:30	10.46	46,400	45	AT = 46	6%
30,700	-2,100	SUX	2-23-98	10:45	13.83	28,600	50	AT = 68	7%
41,200	-500	NCNE	2-24-98	10:45	10.54	40,700	42	AT = 54	1%
29,100	0	DENE	2-24-98	11:00	21.75	29,100	47	AT = 49	0%
43,700	-800	RUNE	2-24-98	11:30	10.43	44,500	43	AT = 47	2%
32,600	+1,300	OMA	2-25-98	11:10	15.78	31,300	45	AT = 63	4%

Discharge Measurements For March 1998

COE Discharge	Difference	Station	Date	Time	Gage Height	Measured Discharge	Water Temp (F)	Remarks	% Diff
31,600	+1,200	SUX	3-2-98	12:00	14.06	30,400	33	AT = 34	4%
41,900	+2,200	NCNE	3-2-98	10:00	10.70	39,700	37	AT = 35	5%
43,300	+4,400	RUNE	3-3-98	11:10	10.36	47,700	39	---	9%
32,700	-500	OMA	3-4-98	9:45	15.81	32,200	36	---	2%
75,800	-1,900	BNMO	3-13-98	9:30	12.46	77,700	39	---	3%
29,200	-1,200	OMA	3-16-98	12:30	14.85	30,400	35	AT = 37	4%
38,200	-2,100	RUNE	3-16-98	10:45	9.10	40,300	39	AT = 42	5%
28,600	+1,800	SUX	3-16-98	13:30	13.42	26,800	32	AT = 36	6%
52,100	-2,300	WVMO	3-16-98	12:00	12.52	54,400	34	---	4%
52,800	-200	MKC	3-17-98	10:30	18.53	53,000	37	---	1%
40,300	-3,200	STJ	3-17-98	8:00	9.15	43,500	34	---	7%
42,300	-500	NCNE	3-19-98	11:50	10.79	42,500	36	AT = 33	1%
29,400	+900	SUX	3-20-98	10:45	13.80	28,500	32	AT = 33	3%
30,900	+100	SUX	3-23-98	11:00	14.37	30,800	36	AT = 36	< 1%
76,600	-8,500	MKC	3-23-98	12:00	18.52	85,100	40	---	10%
49,900	-2,500	RUNE	3-23-98	11:45	11.70	52,400	40	AT = 40	5%
43,500	-800	NCNE	3-23-98	11:15	11.08	44,300	38	AT = 50	2%
34,500	+2,500	OMA	3-24-98	09:50	16.08	32,000	---	---	7%
221,000	+9,000	HEMO	3-24-98	10:00	22.09	212,000	---	---	4%
30,600	-1,000	DENE	3-26-98	12:45	22.18	31,600	39	AT = 68	4%
75,400	-200	WVMO	3-26-98	11:00	15.76	75,600	41	---	< 1%
33,000	+2,700	SUX	3-27-	10:50	14.90	30,300	41	AT= 50	8%

			98						
34,600	+1,000	SUX	3-30-98	11:45	15.3	33,600	43	AT= 45	3%
62,100	+1,100	NCNE	3-30-98	10:00	14.52	61,000	52	AT= 48	2%
42,900	+1,300	OMA	3-31-98	12:00	17.88	41,600	53	AT= 51	3%
89,600	+12,100	RUNE	3-31-98	11:00	17.54	76,500	52	AT= 51	15%
113,000	-19,000	MKC	3-31-98	12:00	24.10	132,000	---	---	15%

Discharge Measurements For April 1998

COE Discharge	Difference	Station	Date	Time	Gage Height	Measured Discharge	Water Temp (F)	Remarks	% Diff
33,900	+700	DENE	4-1-98	11:15	22.85	33,200	47	AT = 44	2%
75,400	-2,800	STJ	4-1-98	---	15.29	78,200	48	---	4%
33,100	+2,800	SUX	4-3-98	10:15	14.91	30,300	43	AT = 40	8%
278,000	-16,000	HEMO	4-3-98	---	26.98	294,000	---	---	5%
32,700	+1,700	SUX	4-6-98	11:20	14.82	31,000	49	AT = 55	5%
57,500	-400	RUNE	4-6-98	11:15	13.05	57,900	52	AT = 68	< 1%
49,800	+100	NCNE	4-6-98	10:40	12.41	49,700	51	AT = 62	< 1%
39,200	+2,400	OMA	4-6-98	9:40	17.10	36,800	47	AT = 59	8%
71,300	+700	RUNE	4-13-98	11:30	15.13	70,600	56	AT = 60	1%
108,000	+3,000	MKC	4-13-98	8:00	22.44	105,000	57	---	3%
41,500	+1,700	OMA	4-14-98	10:30	17.68	39,800	54	AT = 52	4%
57,300	+2,200	NCNE	4-14-98	10:15	13.72	55,100	58	AT = 70	4%
145,000	+7,000	BNMO	4-14-98	8:30	19.22	138,000	63	---	5%
33,200	+1,100	DENE	4-15-98	10:30	22.68	32,100	43	AT = 41	3%
106,000	+1,000	WVMO	4-16-98	9:30	19.20	105,000	46	---	1%
55,500	+3,200	NCNE	4-20-98	11:10	13.44	52,300	55	AT = 64	6%
61,100	+1,200	RUNE	4-20-98	11:00	13.62	59,900	55	AT = 63	2%
66,300	-1,400	STJ	4-20-98	7:30	14.07	67,700	54	---	2%
31,900	+1,200	SUX	4-21-98	10:30	14.99	30,700	59	AT = 52	4%
39,500	-900	OMA	4-21-98	9:45	17.60	40,400	68	AT = 54	2%
151,000	+7,000	HEMO	4-22-98	11:15	17.70	144,000	52	---	5%
82,200	+3,800	MKC	4-23-98	7:15	18.64	78,400	63	---	5%
31,000	+400	SUX	4-24-	10:45	14.90	30,600	55	AT = 75	1%

			98						
37,300	+3,300	SUX	4-27-98	10:15	16.43	34,000	50	AT = 46	9%
52,500	+1,400	RUNE	4-27-98	11:00	12.31	51,100	58	AT = 63	2%
50,200	+1,300	NCNE	4-27-98	12:00	12.60	48,900	58	AT = 60	3%
57,900	+400	STJ	4-27-98	8:00	12.49	57,500	50	---	1%
47,100	+2,400	OMA	4-28-98	10:30	19.03	44,700	55	AT = 47	5%
72,400	4,600	MKC	4-28-98	7:15	17.31	67,800	46	---	6%
128,000	+4000	BNMO	4-29-98	11:30	17.82	124,000	56	---	3%
83,900	-900	WVMO	4-29-98	12:00	16.82	84,800	57	---	1%

Discharge Measurements For May 1998

COE Discharge	Difference	Station	Date	Time	Gage Height	Measured Discharge	Water Temp (F)	Remarks	% Diff
30,600	+1,000	SUX	5-1-98	9:30	15.05	30,600	56	AT = 53	3%
32,300	-200	SUX	5-4-98	9:35	15.3	32,500	57	AT = 55	1%
49,800	+2,000	NCNE	5-4-98	11:40	12.50	47,800	63	AT = 88	4%
40,700	+2,800	OMA	5-4-98	10:45	18.04	37,900	61	AT = 84	7%
32,300	-200	SUX	5-4-98	9:35	15.3	32,500	57	AT = 55	1%
70,300	+2,700	MKC	5-5-98	8:00	16.9	67,900	64	AT = 74	4%
70,900	+1,200	WVMO	5-6-98	9:30	15.18	69,700	66	AT = 77	2%
56,700	+1,700	STJ	5-6-98	11:30	12.29	55,800	64	AT = 67	3%
40,700	+2,800	OMA	5-4-98	10:15	18.04	37,900	64	AT = 61	7%
30,800	-300	SUX	5-8-98	10:40	14.93	31,100	57	AT = 64	1%
44,800	+3,300	NCNE	5-11-98	10:45	11.48	41,500	66	AT = 74	7%
31,000	-700	SUX	5-11-98	10:15	15.02	31,700	62	AT = 63	2%
31,400	+900	DENE	5-11-98	11:30	22.98	30,500	---	---	3%
65,400	+4,400	MKC	5-12-98	8:00	16.04	61,000	68	---	7%
116,000	+5,000	HEMO	5-12-98	10:30	14.84	111,000	68	---	4%
53,000	-1,900	RUNE	5-14-98	12:00	12.27	54,900	62	AT = 77	3%
32,000	+500	SUX	5-15-98	10:15	15.28	31,500	66	AT = 67	2%
33,900	-2,300	SUX	5-18-98	11:10	15.74	36,200	70	AT = 85	6%
45,900	+200	NCNE	5-18-98	10:30	12.17	45,700	70	AT = 95	1%
59,300	+700	STJ	5-18-98	10:15	12.75	58,600	69	AT = 80	2%
68,700	+5,200	MKC	5-19-98	7:30	16.65	63,500	73	AT = 81	8%
35,100	-3,800	OMA	5-19-98	10:30	17.75	38,900	71	AT = 95	10%
74,900	0	BNMO	5-20-98	8:15	12.40	74,900	72	AT = 70	0%
36,300	+800	SUX	5-22-98	9:35	16.32	35,500	64	AT = 61	2%
37,000	-1,800	OMA	5-26-	10:40	18.18	38,800	65	AT = 66	5%

			98						
51,600	-800	NCNE	5-26-98	10:45	13.30	52,400	68	AT = 73	2%
79,600	-500	WVMO	5-26-98	9:15	16.26	80,100	68	AT = 67	1%
106,000	0	HEMO	5-26-98	11:30	13.66	111,000	72	---	0%
57,800	-1,600	RUNE	5-27-98	10:45	13.20	59,400	69	AT = 80	3%
73,600	-100	MKC	5-27-98	7:15	17.53	73,700	70	AT = 76	1%
103,00-	+5,300	BNMO	5-27-98	9:00	15.49	97,700	73	AT = 72	5%
36,600	+1,000	SUX	5-29-98	9:45	16.39	35,600	65	AT = 68	3%

Discharge Measurements For June 1998

COE Discharge	Difference	Station	Date	Time	Gage Height	Measured Discharge	Water Temp (F)	Remarks	% Diff
36,200	+300	SUX	6-1-98	9:30	16.3	35,900	66	AT = 69	1%
60,600	-800	RUNE	6-1-98	10:15	13.65	61,400	73	AT = 80	1%
67,800	+900	STJ	6-1-98	8:00	14.22	66,900	68	AT = 64	1%
88,400	+1,900	HEMO	6-1-98	10:00	11.68	86,500	72	---	2%
40,400	-2,600	OMA	6-2-98	10:00	18.90	43,000	70	AT = 91	6%
50,500	-1,500	NCNE	6-2-98	8:35	13.05	52,000	72	AT = 67	3%
36,800	-300	SUX	6-5-98	10:00	16.43	37,100	60	AT = 52	1%
37,100	-800	SUX	6-8-98	10:15	16.51	37,900	57	AT = 62	2%
50,400	-700	NCNE	6-8-98	12:15	12.98	51,100	64	AT = 63	1%
62,300	+400	RUNE	6-9-98	10:15	13.90	61,900	---	---	1%
51,200	+2,500	OMA	6-10-98	9:00	20.94	48,700	66	AT = 64	5%
37,700	-1,000	DENE	6-11-98	13:00	24.30	38,700	72	AT = 80	3%
102,000	+1,000	BNMO	6-11-98	7:30	15.48	101,000	69	AT = 76	1%
37,800	-1,600	SUX	6-12-98	9:45	16.67	39,400	62	AT = 61	4%
104,000	-5,000	MKC	6-12-98	7:30	22.30	109,000	69	AT = 85	5%
21,000	-1,100	RNIA	6-14-98	19:15	22.30	22,100	---	---	5%
20,800	-700	ROIA	6-14-98	17:45	21.53	21,500	---	---	3%
34,700	-300	SUX	6-15-98	9:55	15.94	35,000	63	AT = 62	1%
100,000	+8,100	NCNE	6-15-98	15:20	19.90	91,900	72	AT = 68	8%
31,400	-6,800	ACIA	6-15-98	12:00	21.95	38,200	---	---	18%
46,700	-17,300	ROIA	6-15-98	12:00	29.36	64,000	---	---	37%
5,440	-990	HCK	6-15-98	10:00	10.45	4,450	---	---	19%
162,000	+5,000	BNMO	6-15-98	11:30	20.64	157,000	70	AT = 71	3%
32,100	-400	ROIA	6-16-98	10:15	25.91	32,500	66	AT = 66	1%
44,100	-6,500	HAIA	6-16-	11:30	29.7	50,600	---	---	13%

			98						
148,000	-7,000	WVMO	6-16-98	11:00	22.50	155,000	67	AT = 76	5%
51,900	+2,700	OMA	6-17-98	10:30	21.07	49,200	68	AT = 70	5%
57,500	-6,900	HAIA	6-17-98	7:20	33.15	64,400	---	---	11%
129,000	-2,000	STJ	6-18-98	11:00	21.88	131,000	71	AT = 82	2%
28,400	-800	SUX	6-19-98	9:20	14.32	29,200	68	AT = 64	3%
141,000	0	MKC	6-19-98	8:00	25.82	141,000	82	AT = 81	0%
29,000	-700	DENE	6-22-98	14:00	22.22	29,700	75	AT = 97	2%
37,600	+1,000	OMA	6-22-98	11:00	18.32	36,600	72	AT = 75	3%
137,000	+16,000	WVMO	6-22-98	12:00	21.05	121,000	76	AT = 83	12%
209,000	+13,000	BNMO	6-22-98	8:30	24.02	196,000	72	AT = 69	6%
26,200	-1,000	SUX	6-23-98	9:20	13.73	27,200	75	AT = 69	4%
55,400	+3,000	NCNE	6-23-98	11:00	13.96	52,400	77	AT = 81	5%
78,000	+4,600	RUNE	6-23-98	11:50	16.26	73,400	78	AT = 82	6%
256,000	-2,000	HEMO	6-23-98	10:00	25.58	258,000	75	---	1%
30,800	-400	SUX	6-26-98	15:00	14.98	31,200	75	AT = 82	1%
33,300	-600	SUX	6-29-98	9:50	15.60	33,900	78	AT = 77	2%
41,800	-3,300	OMA	6-29-98	11:30	19.20	45,100	81	AT = 93	7%
55,200	+400	NCNE	6-29-98	14:30	13.92	54,800	82	AT = 92	1%
93,600	+9,600	MKC	6-29-98	7:00	19.71	84,000	80	AT = 81	10%
120,000	+9,000	WVMO	6-30-98	11:15	19.40	111,000	79	AT = 85	7%
138,000	+4,000	HEMO	6-30-98	10:00	16.63	134,000	85	---	3%

Discharge Measurements For July 1998

COE Discharge	Difference	Station	Date	Time	Gage Height	Measured Discharge	Water Temp (F)	Remarks	% Diff
65,900	+1,600	RUNE	7-1-98	11:15	14.45	64,300	81	AT = 88	2%
167,000	+12,000	BNMO	7-1-98	14:30	21.05	155,000	83	AT = 83	7%
32,500	-900	SUX	7-2-98	9:30	15.41	33,400	78	AT = 74	3%
32,900	-1,000	SUX	7-6-98	9:45	15.49	33,900	76	AT = 79	3%
97,200	+2,400	RUNE	7-6-98	11:00	18.48	94,800	82	AT = 95	3%
86,600	-3,900	MKC	7-6-98	7:45	19.96	90,500	82	AT = 87	4%
87,300	+700	NCNE	7-7-98	9:55	18.34	86,600	77	AT = 86	1%
36,900	0	DENE	7-8-98	10:30	24.14	36,900	77	AT = 86	0%
104,000	-1,000	STJ	7-8-98	10:45	19.39	105,000	80	AT = 92	1%
32,200	-1,000	SUX	7-10-98	9:40	15.33	33,200	76	AT = 79	3%
32,200	-1,000	NCNE	7-10-98	9:40	15.33	33,200	76	AT = 79	3%
39,800	-2,300	OMA	7-13-98	10:30	18.67	42,100	82	AT = 91	5%
51,400	-2,200	NCNE	7-13-98	11:50	13.26	49,200	83	AT = 89	4%
63,900	-400	RUNE	7-13-98	11:45	14.18	64,300	86	AT = 84	1%
102,000	+4,700	WVMO	7-13-98	11:30	18.49	97,300	79	AT = 85	5%
116,000	+11,000	BNMO	7-14-98	12:45	16.65	105,000	80	AT = 89	10%
31,900	-400	SUX	7-17-98	10:00	15.25	32,300	80	AT = 74	1%
36,900	-1,500	OMA	7-20-98	10:35	18.15	35,400	84	AT = 77	4%
45,800	-3,200	NCNE	7-20-98	10:20	12.15	42,600	86	AT = 99	7%
31,300	+400	SUX	7-21-98	8:30	15.16	30,900	75	AT = 73	1%
68,200	+3,600	MKC	7-21-98	10:00	16.78	64,600	87	AT = 96	5%
33,400	+200	DENE	7-22-98	12:30	23.39	33,200	81	AT = 81	1%
49,900	-2,300	STJ	7-22-98	10:15	11.85	52,200	82	AT = 78	4%
31,000	-1,500	SUX	7-24-98	9:50	15.11	32,500	78	AT = 72	5%

68,200	+5,200	WVMO	7-24-98	9:54	14.56	63,000	79	AT = 68	8%
32,000	+100	SUX	7-27-98	11:10	15.38	31,900	76	AT = 77	0%
50,900	-500	RUNE	7-27-98	10:55	12.04	51,400	73	AT = 77	1%
35,600	-3,600	OMA	7-28-98	9:05	17.96	39,200	79	AT = 91	9%
43,400	-200	NCNE	7-28-98	11:10	11.72	43,600	80	AT = 84	1%
49,400	-1,100	STJ	7-29-98	8:45	11.74	50,500	79	AT = 80	2%
31,500	-900	SUX	7-31-98	10:00	15.20	32,400	66	AT = 72	3%
85,400	-4,700	MKC	7-31-98	8:00	19.65	80,700	77	AT = 75	6%

Discharge Measurements For August 1998

COE Discharge	Difference	Station	Date	Time	Gage Height	Measured Discharge	Water Temp (F)	Remarks	% Diff
34,700	-3,000	OMA	8-1-98	9:30	17.65	37,700	77	AT = 86	8%
48,200	-2,100	RUNE	8-1-98	11:45	11.52	50,300	77	AT = 95	4%
32,000	-2000	SUX	8-2-98	10:00	15.60	34,000	73	AT = 71	6%
43,000	-600	NCNE	8-4-98	10:30	11.62	43,600	77	AT = 79	1%
33,600	+300	DENE	8-5-98	11:15	23.41	33,300	75	AT = 77	1%
103,000	+4,100	BNMO	8-5-98	9:00	15.47	98,900	80	---	4%
33,900	+1,200	SUX	8-7-98	9:25	15.55	32,700	72	AT = 68	4%
78,700	+2,600	MKC	8-7-98	7:15	18.62	76,100	75	AT = 75	5%
46,100	+100	NCNE	8-10-98	9:50	12.20	46,100	79	AT = 84	0%
49,400	+800	RUNE	8-11-98	10:30	11.59	48,600	78	AT = 81	2%
79,800	+5,500	WVMO	8-13-98	11:00	16.04	74,300	78	AT = 80	7%
100,000	-2,000	HEMO	8-13-98	11:30	13.08	102,000	82	---	2%
31,500	+200	SUX	8-14-98	8:25	15.08	31,300	77	AT = 79	1%
75,900	+3,800	MKC	8-14-98	7:15	18.13	72,100	78	AT = 74	5%
32,400	-200	SUX	8-17-98	10:30	15.27	32,600	77	AT = 86	1%
38,200	-1,600	OMA	8-17-98	11:00	18.25	36,600	81	AT = 82	4%
44,600	-200	NCNE	8-17-98	10:45	11.99	44,800	81	AT = 89	1%
95,700	-1,100	HEMO	8-17-98	10:00	12.56	96,800	---	---	1%
46,700	-2,000	RUNE	8-18-98	11:30	11.22	48,700	82	AT = 82	4%
33,200	0	DENE	8-19-98	13:15	23.33	33,200	82	AT = 93	0%
46,800	-400	STJ	8-19-98	10:15	11.24	47,200	83	AT = 88	1%
32,500	-100	SUX	8-21-98	10:00	15.37	32,600	77	AT = 72	1%
58,300	+4,000	MKC	8-21-98	7:15	14.95	54,300	83	AT = 81	7%
30,600	-800	SUX	8-24-98	10:40	14.87	31,400	81	AT = 82	3%
36,900	+100	OMA	8-24-98	11:15	17.73	36,800	82	AT = 86	1%
48,900	+1,200	NCNE	8-24-98	10:00	12.88	47,700	82	AT = 90	2%
69,900	+5,400	WVMO	8-24-98	11:00	15.09	64,500	85	AT = 97	8%
49,900	+1,400	RUNE	8-25-98	11:00	11.85	48,500	---	---	3%
67,800	+2,000	BNMO	8-25-98	8:15	11.85	65,800	83	AT = 86	4%
31,600	-1,300	SUX	8-28-98	10:00	15.17	32,900	75	AT = 70	4%
60,800	+3,500	MKC	8-28-98	7:30	15.66	57,300	81	AT = 87	6%
31,300	-800	SUX	8-31-98	10:20	15.09	32,100	76	AT = 67	2%
57,700	+2,800	WVMO	8-31-98	9:30	13.42	54,900	81	AT = 78	5%

Discharge Measurements For September 1998

COE Discharge	Difference	Station	Date	Time	Gage Height	Measured Discharge	Water Temp (F)	Remarks	% Diff
40,600	+1,100	NCNE	9-2-98	11:00	11.02	39,500	80	AT = 87	3%
43,100	+3,500	RUNE	9-2-98	11:00	10.42	39,600	82	AT = 79	8%
43,500	-1,900	STJ	9-1-98	11:00	10.55	45,400	81	AT = 73	4%
62,200	+400	BNMO	9-2-98	8:30	11.16	61,800	77	AT = 72	1%
34,900	0	DENE	9-3-98	13:55	23.70	34,900	79	AT = 90	0%
58,200	+700	MKC	9-3-98	8:00	15.31	57,500	78	AT = 81	1%
34,100	-1,300	SUX	9-4-98	10:10	15.76	35,400	76	AT = 80	4%
34,300	+1,200	SUX	9-8-98	11:30	15.65	33,100	75	AT = 77	4%
37,500	-2,400	OMA	9-8-98	9:50	17.84	39,900	80	AT = 86	6%
41,300	+700	NCNE	9-8-98	13:05	11.21	40,600	79	AT = 81	2%
43,100	-500	STJ	9-8-98	11:45	10.46	43,600	68	AT = 80	1%
48,800	+600	MKC	9-8-98	7:45	13.47	48,800	76	AT = 64	1%
43,000	+1,300	RUNE	9-9-98	10:55	10.40	41,700	79	AT = 84	5%
52,200	+2,200	WVMO	9-9-98	8:45	12.67	50,000	77	AT = 67	4%
33,600	+500	SUX	9-14-98	10:00	15.54	33,100	73	AT = 70	1%
34,00	-100	DENE	9-14-98	12:45	23.50	34,100	75	AT = 79	0%
36,400	0	OMA	9-14-98	9:30	17.60	36,400	75	AT = 75	0%
42,000	-900	RUNE	9-14-98	12:45	10.17	42,900	76	AT = 81	2%
39,800	+1,400	NCNE	9-14-98	10:30	10.85	38,400	---	---	4%
33,600	-100	SUX	9-18-98	10:05	15.54	33,700	73	AT = 77	< 1%
33,700	+1,300	SUX	9-21-98	11:15	15.57	32,400	65	AT = 56	4%
41,500	+900	NCNE	9-21-98	9:55	11.30	40,600	73	AT = 61	2%
55,400	+3,700	MKC	9-21-98	8:15	14.80	51,700	73	AT = 75	7%
36,700	+300	OMA	9-22-98	9:30	17.66	36,400	70	AT = 57	1%
47,600	-600	STJ	9-22-98	8:15	11.40	48,200	67	AT = 56	1%
75,900	+6,500	WVMO	9-22-98	10:30	15.93	69,400	72	AT = 62	9%
86,200	-700	BNMO	9-23-98	13:15	14.18	86,900	74	AT = 76	1%
43,800	-1,500	RUNE	9-23-98	13:45	10.60	45,300	73	AT = 72	3%
33,600	+300	SUX	9-25-98	10:30	15.53	33,300	68	AT = 67	1%
33,400	-700	SUX	9-28-98	11:40	15.48	34,100	70	AT = 81	2%
40,100	+500	NCNE	9-28-98	10:00	10.92	39,600	73	AT = 73	1%
42,800	-1,000	STJ	9-28-98	8:00	10.39	43,800	71	AT = 69	2%
33,400	-1,300	DENE	9-29-98	11:45	23.5	34,700	71	AT = 74	4%
35,600	-500	OMA	9-29-98	9:25	17.46	36,100	73	AT = 82	1%
56,600	+1,400	MKC	9-29-98	8:00	15.00	55,200	74	AT = 83	2%
42,200	-800	RUNE	9-30-98	11:30	10.20	43,000	74	AT = 77	2%

Discharge Measurements For October 1998

COE Discharge	Difference	Station	Date	Time	Gage Height	Measured Discharge	Water Temp (F)	Remarks	% Diff
42,000	-2,600	STJ	10-1-98	8:45	10.18	44,600	65	AT = 53	6%
67,900	+800	BNMO	10-2-98	12:00	11.95	67,100	71	AT = 57	1%
36,100	+1,000	SUX	10-5-98	10:30	16.14	35,100	59	AT = 53	3%
44,200	+1,900	NCNE	10-5-98	11:30	11.90	42,300	63	AT = 61	4%
46,100	-3,700	RUNE	10-5-98	12:00	11.06	49,800	62	AT = 64	7%
38,700	+400	OMA	10-6-98	11:15	18.09	38,300	59	AT = 57	1%
281,000	0	BNMO	10-8-98	10:30	28.83	281,000	53	AT = 61	0%
32,200	+1,000	SUX	10-9-98	10:00	14.92	31,200	55	AT = 50	3%
34,400	+1,500	SUX	10-13-98	10:30	15.47	32,900	58	AT = 59	4%
35,300	-3,400	OMA	10-13-98	10:30	17.36	38,700	60	AT = 63	9%
41,000	+100	NCNE	10-13-98	11:00	11.14	40,900	63	AT = 81	< 1%
155,000	-4,000	HEMO	10-13-98	12:30	18.20	159,000	---	---	3%
43,300	-400	RUNE	10-14-98	11:40	10.40	43,700	61	AT = 71	1%
72,100	+4,800	WVMO	10-14-98	11:15	15.47	67,300	62	AT = 57	7%
34,900	+1,100	SUX	10-16-98	10:20	15.58	33,800	61	AT = 67	3%
34,800	+1,300	SUX	10-19-98	10:15	15.40	33,500	57	AT = 60	4%
36,900	-500	OMA	10-20-98	9:45	17.34	37,400	57	AT = 50	2%
41,400	-1,600	NCNE	10-20-98	11:20	11.23	43,000	59	AT = 59	4%
112,000	+5,000	BNMO	10-22-98	11:45	16.80	107,000	59	AT = 51	5%
63,100	+1,700	MKC	10-23-98	10:15	16.25	61,400	59	AT = 51	3%
37,400	+1,400	SUX	10-23-98	9:20	16.20	36,000	55	AT = 52	4%
37,700	+1,300	SUX	10-26-98	10:00	16.25	36,400	59	AT = 68	3%
38,200	-2,000	OMA	10-26-98	10:15	17.62	40,200	61	AT = 77	5%
42,500	-2,300	NCNE	10-26-98	10:40	11.49	44,800	58	AT = 64	5%
67,200	+2,400	WVMO	10-26-98	10:45	14.81	64,800	60	AT = 74	4%
36,100	-1,400	DENE	10-27-98	11:45	23.96	37,500	59	AT = 63	4%
45,400	-1,200	RUNE	10-28-98	10:30	10.84	46,600	61	AT = 72	3%
40,100	-900	SUX	10-30-98	10:40	17.23	41,000	57	AT = 48	2%
46,900	-1,300	STJ	10-30-98	9:30	11.06	48,200	61	AT = 64	3%

Discharge Measurements For November 1998

COE Discharge	Difference	Station	Date	Time	Gage Height	Measured Discharge	Water Temp (F)	Remarks	% Diff
39,900	-2,200	SUX	11-2-98	9:45	17.20	42,100	54	AT = 46	5%
43,300	-3,500	OMA	11-2-98	9:30	18.69	46,800	55	AT = 46	7%
49,100	-6,600	NCNE	11-3-98	10:45	12.93	55,700	52	AT = 39	12%
213,000	-22,000	BNMO	11-3-98	9:00	24.70	235,000	53	AT = 42	9%
38,700	-1,200	SUX	11-5-98	10:00	16.91	39,900	49	AT = 39	3%
117,000	-15,000	MKC	11-5-98	8:00	24.74	132,000	48	AT = 42	13%
41,700	-700	SUX	11-9-98	9:45	17.28	42,400	45	AT = 41	2%
45,600	-3,600	OMA	11-9-98	10:00	18.68	49,200	47	AT = 45	7%
52,400	-2,100	NCNE	11-9-98	10:45	12.95	54,500	46	AT = 46	4%
38,400	-4,200	DENE	11-12-98	12:45	24.45	42,600	41	AT = 46	10%
42,200	-1,600	SUX	11-13-98	10:15	17.41	44,000	40	AT = 33	4%
60,800	-1,200	RUNE	11-13-98	10:30	13.65	62,000	43	AT = 50	2%
44,200	-2,100	SUX	11-16-98	10:15	17.90	46,300	40	AT = 39	5%
47,000	-3,000	OMA	11-16-98	10:00	18.97	50,000	44	AT = 45	6%
55,700	-3,800	NCNE	11-16-98	10:10	13.55	59,200	45	AT = 46	6%
94,300	-6,700	MKC	11-16-98	8:00	21.48	101,000	50	AT = 59	7%
113,000	-3,000	BNMO	11-18-98	8:00	16.88	116,000	48	AT = 55	3%
89,900	-800	MKC	11-19-98	7:30	20.18	90,700	48	AT = 49	1%
84,900	400	MKC	11-23-98	10:00	19.36	84,500	48	AT = 59	0%
		HEMO	11-23-98		16.67	135,00	52	AT =	
47,400	1,700	DENE	11-24-98	9:45	25.31	45,700	43	AT = 45	4%
60,600	200	NCNE	11-24-98	10:25	13.86	60,400	44	AT = 60	0%

Discharge Measurements For December 1998

COE Discharge	Difference	Station	Date	Time	Gage Height	Measured Discharge	Water Temp (F)	Remarks	% Diff
61,300	+900	RUNE	12-1-98	13:30	13.14	60,400	48	AT = 64	1%
111,000	0	HEMO	12-1-98	11:30	14.19	111,000	53	AT =	0%
60,700	+200	STJ	12-2-98	9:30	13.10	60,500	49	AT = 55	0%
40,800	+2,100	SUX	12-7-98	10:50	16.70	38,700	41	AT = 28	5%
47,200	+2,900	OMA	12-7-98	11:00	18.50	44,300	46	AT = 46	6%
54,800	+2,600	NCNE	12-7-98	12:50	12.94	52,200	45	AT = 41	5%
40,300	+2,900	DENE	12-8-98		23.9	37,400	42	AT = 45	7%
48,900	-400	RUNE	12-14-98	11:00	11.06	49,300	41	AT = 46	1%
37,000	+2,800	SUX	12-15-98	9:45	15.82	34,200	41	AT = 39	8%
49,100	+2,000	NCNE	12-15-98	10:20	11.53	47,100	41	AT = 42	4%
39,000	-100	OMA	12-16-98	10:15	16.87	39,100	41	AT = 46	0%