

# Zone 3

# CASSIAR 1191440

location: 59°17', 129°50', 1078 m

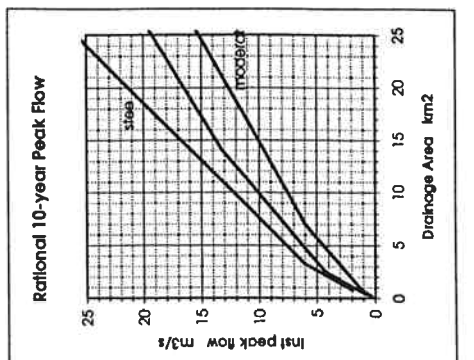
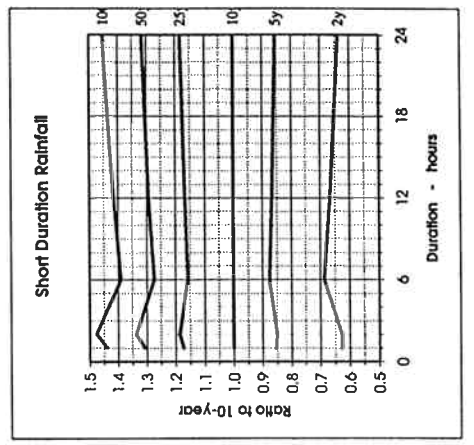
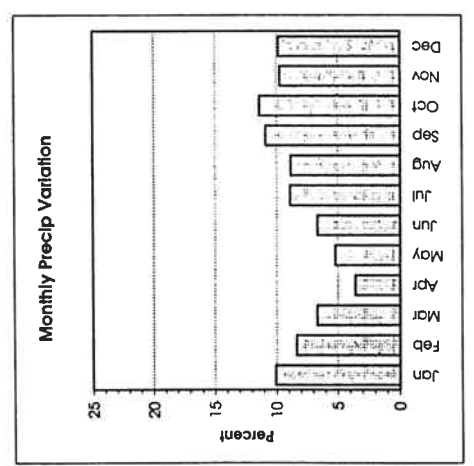
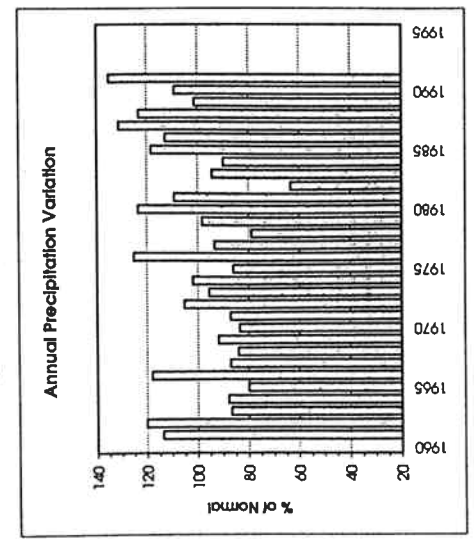
Monthly and Annual Precipitation in mm

Short Duration Rainfall

Maximum Daily Precip

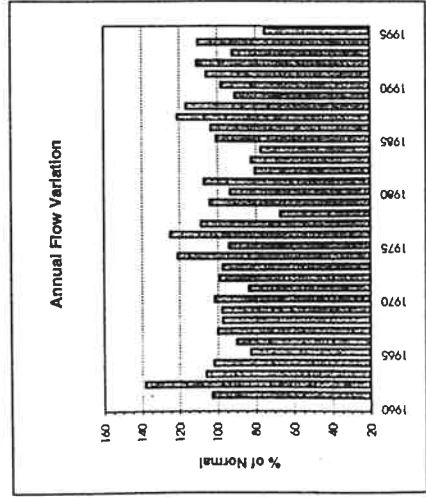
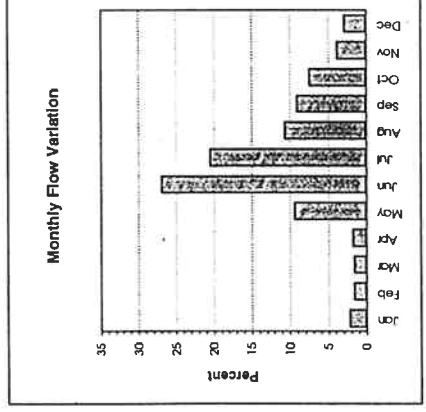
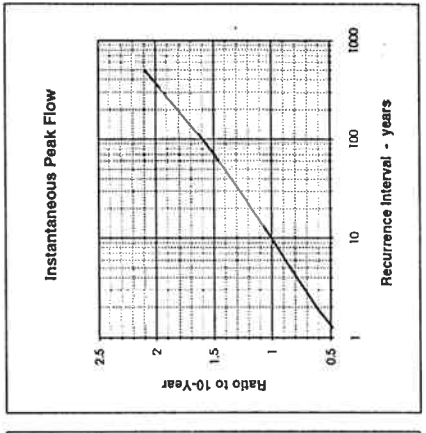
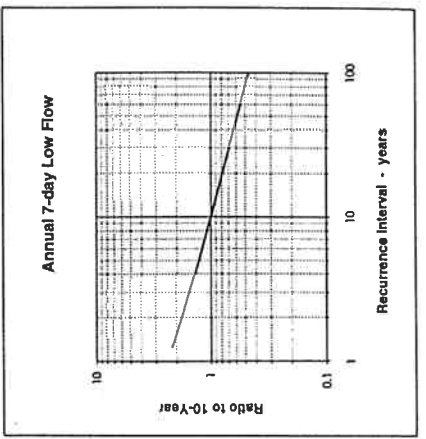
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	month	mm	24h	12h	6h	2h	1h	Year
1960	83	96	47	18	46	64	34	72	84	119	71	80	813	Oct	45						1960
1961	106	14	115	47	32	95	26	127	94	49	94	60	859	Jun	29						1961
1962	78	59	44	20	17	52	34	11	98	32	64	110	620	Jun	37						1962
1963	53	80	74	34	42	38	55	78	35	42	38	60	628	Feb	22						1963
1964	78	136	7	29	27	38	21	44	32	84	25	51	572	Feb	28						1964
1965	80	83	39	17	91	28	57	69	117	105	92	67	844	May	30						1965
1966	54	43	81	11	58	18	70	43	81	81	45	38	623	May	25						1966
1967	54	36	38	40	23	37	82	42	76	60	93	19	601	Nov	28						1967
1968	25	14	61	29	46	25	77	108	83	39	126	23	656	May	23						1968
1969	61	44	22	26	25	67	39	59	80	98	38	39	597	Jan	24						1969
1970	66	39	28	38	36	31	9	95	63	74	82	63	623	Sep	25						1970
1971	104	80	42	23	30	27	36	43	128	125	49	42	753	Sep	42						1971
1972	98	70	60	23	32	27	59	73	66	73	27	73	682	Feb	22						1972
1973	67	52	23	3	37	37	147	43	54	154	35	76	728	Jul	48						1973
1974	56	23	17	11	16	58	76	62	49	80	61	106	615	Nov	23						1974
1975	110	137	45	31	35	72	68	65	74	61	80	118	895	Feb	53						1975
1976	53	81	65	31	40	47	40	47	56	99	85	30	667	Nov	27						1976
1977	15	19	26	9	19	23	40	43	56	50	104.6	113	564	Nov	30						1977
1978	51	62	81	5	42	52	121	13	83	50	27	116	702	Jul	25						1978
1979	46	44	60	14	19.8	78	108	48	79	105	70	209	883	Jul	21						1979
1980	71	107	31.3	34.7	24	79	36	109	103	69	77	42	780	Aug	85						1980
1981	89	16	38	16	17	3	43	57	53	59	34	29	453	Jan	18						1981
1982	56	32	14	20	33	74	132	122	92	56	22	21	674	Aug	30						1982
1983	109	51	23	9	28	51	21	76	76	57	60	79	642	Jan	21						1983
1984	95	136	65	63	40	40	66	43	84	98	49	65.6	846	Feb	30						1984
1985	85.8	22	97	40	48	29	49	53	79	150	98	55	805	Oct	32						1985
1986	67	61	43	44	50	94	78.3	94	131	72	107	96	938	Sep	23						1986
1987	47	75	60	43	55	62	113	63	90	120	101	53.6	881	Sep	36						1987
1988	112	1	46	15	41	35	62	56.2	67	109	106.8	72.9	722	Oct	30						1988
1989	91	76	37	15	72	44	64	37	57	76	121	90	779	Nov	29						1989
1990	39	60	20	25	38	64	49	122	116	125	144	163	966	Nov	25						1990
1991	123	45	42	57	36	64	49	122	116	125	144	163	966	Apr	23						1991
1992																					1992
1993																					1993
1994																					1994
1995																					1995

normal	72	60	48	26	37	48	63	63	78	81	69	70	715	average	30	average	30	average	30	average	30
excess	2	0	1	2	360	0	0	0	0	13	4	1	383	10-year	41	10-year	41	10-year	41	10-year	41



**BLUE RIVER NEAR THE MOUTH 10AC004**

Year	Monthly and Annual Discharge in m <sup>3</sup> /s												Drainage Area = 1,700 km <sup>2</sup>			Median Elevation = 1260 m			7-Day Low Flow		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean	date	m <sup>3</sup> /s	Jun-Sep	Annual	Year			
1960	8.00	6.50	6.00	5.50	27.2	52.1	57.5	21.4	21.4	15.6	8.55	6.00	19.2	Jul 10	147	15.1		1960			
1961	5.50	5.00	4.50	5.00	11.5	85.9	39.0	27.7	16.4	11.7	9.11	7.36	25.7	Jun 11	151	13.7		1961			
1962	5.95	2.61	2.55	3.46	14.6	55.2	41.9	16.7	18.9	18.9	8.96	6.37	19.0	Jul 02	86	11.4	2.61	1962			
1963	3.07	3.51	2.95	3.33	19.0	77.1	38.8	20.6	19.9	17.1	8.98	7.37	15.4	Jun 17	90	17.3	2.55	1963			
1964	4.61	4.65	4.21	4.05	24.5	51.9	37.1	20.5	24.0	14.4	9.22	8.19	18.6	Jun 21	105	15.2	2.76	1964			
1965	4.06	3.14	3.04	5.00	27.3	68.1	38.1	23.0	32.1	21.3	8.45	7.03	18.1	Jun 12	106	17.0	3.58	1965			
1966	5.46	5.07	4.63	4.64	20.8	68.1	38.1	23.0	20.6	21.3	9.76	5.63	18.2	May 26	116	19.9	2.98	1966			
1967	4.29	3.49	3.03	3.12	15.1	69.1	28.4	18.4	21.3	11.5	6.08	3.01	18.2	Jun 24	176	18.0	4.41	1967			
1968	1.66	1.38	1.06	0.94	26.6	73.1	37.4	26.5	19.6	21.4	7.03	4.69	18.5	May 31	165	18.1	0.906	1968			
1969	3.49	3.29	3.51	4.20	16.1	63.0	47.1	29.6	22.5	11.8	6.57	5.98	18.2	Jun 14	110	18.5	3.09	1969			
1970	4.57	3.80	3.58	3.83	15.7	48.4	83.8	39.0	20.3	24.6	7.98	7.98	18.2	Jul 18	297	16.8	3.48	1970			
1971	6.35	4.95	4.12	4.21	14.4	48.2	50.5	27.4	20.5	13.9	8.22	6.30	17.5	Jun 28	164	16.2	3.95	1971			
1972	5.11	4.08	3.58	4.06	17.4	73.3	71.7	37.4	26.1	17.4	11.00	7.09	23.2	Jul 01	155	23.4	3.47	1972			
1973	6.30	5.45	4.30	6.24	18.8	67.1	53.5	29.7	22.8	14.1	7.34	6.55	20.2	Jul 18	113	19.3	4.18	1973			
1974	5.07	3.86	2.63	2.64	13.3	34.4	19.0	15.8	18.4	17.2	10.70	7.10	12.5	Jun 08	65	12.8	2.31	1974			
1975	4.83	3.75	3.86	4.87	19.0	60.7	61.4	20.5	20.8	16.6	8.81	6.34	19.4	Jul 03	123	14.4	3.51	1975			
1976	5.00	4.74	4.44	4.68	23.0	54.0	30.4	21.1	16.5	27.1	11.00	6.16	17.4	Jun 08	103	14.4	4.32	1976			
1977	5.12	4.26	4.12	3.65	42.0	57.4	29.2	14.1	16.8	12.9	12.90	7.35	19.9	May 27	164	12.8	3.44	1977			
1978	5.23	5.09	4.68	4.21	14.7	57.4	29.2	22.0	20.3	20.0	8.90	6.00	19.9	Jun 10	91	11.9	4.09	1978			
1979	3.97	3.54	3.24	4.57	18.9	48.3	29.5	23.2	23.1	14.7	6.68	3.98	15.3	Jun 01	115	18.2	3.05	1979			
1980	2.97	2.95	2.67	3.39	16.1	50.1	31.1	21.4	18.7	12.2	6.68	4.72	14.4	Jun 11	79	15.8	2.60	1980			
1981	3.96	3.78	4.14	4.36	16.0	57.6	65.7	22.0	20.3	14.1	6.88	5.38	18.8	Jun 12	131	16.2	3.88	1981			
1982	4.55	2.60	3.32	4.56	10.1	63.6	61.4	20.0	19.9	23.9	9.95	6.14	19.2	Jun 03	109	14.1	2.29	1982			
1983	4.41	2.73	2.44	2.99	26.2	78.5	59.8	24.8	25.3	22.8	10.10	9.80	22.6	Jun 22	259	20.1	2.36	1983			
1984	7.59	5.20	4.39	5.35	24.7	67.8	63.8	28.4	20.5	14.3	7.91	9.79	21.7	Jul 13	165	14.9	4.25	1984			
1985	6.22	4.75	4.22	4.76	34.1	56.4	30.5	18.2	13.2	13.8	8.90	6.96	16.9	Jun 05	114	11.2	4.07	1985			
1986	5.40	4.99	4.75	5.83	31.1	78.3	36.5	16.7	12.2	9.5	7.35	6.49	18.3	Jun 20	201	11.3	4.47	1986			
1987	5.40	4.90	4.33	5.78	23.5	54.9	33.4	19.9	33.7	22.5	14.90	12.80	19.7	Jun 15	80	17.7	4.07	1987			
1988	5.40	4.90	4.33	5.78	23.5	54.9	33.4	19.9	33.7	22.5	14.90	12.80	19.7	Jun 15	80	17.7	4.07	1988			
1989	8.35	6.48	5.31	5.41	18.7	88.8	53.9	22.1	14.1	11.3	7.31	6.05	20.6	Jun 15	91	13.2	4.63	1989			
1990	4.77	4.08	3.81	5.61	35.2	54.2	32.2	16.8	13.8	18.6	9.13	6.74	17.1	Jun 06	91	11.8	3.75	1990			
1991	4.87	3.54	2.30	1.67	21.9	63.3	58.7	23.6	29.3	20.2	8.05	7.54	20.5	Jun 02	117	14.0	1.42	1991			
1992	5.77	4.93	4.34	7.31	27.0	33.2	21.2	20.0	18.4	11.8	6.31	6.68	14.0	Jun 13	64	15.7	4.20	1992			
1993	4.91	4.07	3.70	4.14	20.6	61.0	44.9	23.4	20.5	16.4	8.81	6.42	18.6	Average	131	15.6	3.31	1993			
1994	8	6	6	6	33	93	71	37	31	26	13	10	345	10-Year	197	12.1	1.94	1994			
1995	mm																	m <sup>3</sup> /s			



**COTTONWOOD RIVER ABOVE BASS CREEK 10AC005**

Year	Monthly and Annual Discharge in m <sup>3</sup> /s												Annual	Year				
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			Mean	date	m <sup>3</sup> /s	
1960	2.99	2.44	1.98	1.56	10.9	104.0	39.4	22.1	14.7	12.5	6.80	4.53	19.6	Jun 11	216	13.0	1.42	1960
1961	3.54	2.76	2.27	1.95	19.0	66.6	38.9	12.9	14.9	15.6	6.84	3.96	22.4	Jun 02	131	9.78	1.93	1961
1962	2.98	2.23	1.87	1.61	82.9	36.9	27.2	22.5	28.0	23.1	8.57	5.70	15.8	Jun 11	149	18.0	1.53	1962
1963	4.12	3.05	2.35	2.29	22.6	101.0	34.5	17.9	28.0	18.3	9.06	5.62	23.8	Jun 05	155	15.3	2.10	1963
1964	3.05	2.78	2.84	2.44	30.3	63.2	36.9	15.9	32.8	15.0	7.39	4.78	19.6	Jun 10	115	11.5	2.35	1964
1965	2.65	2.35	2.32	1.89	34.9	64.0	27.7	36.7	29.9	11.9	6.13	4.73	19.6	May 25	191	17.8	1.79	1965
1966	3.48	3.01	2.55	2.58	20.8	77.6	35.3	25.9	25.9	23.9	9.10	5.84	23.8	Jun 04	242	14.8	2.44	1966
1967	3.56	2.79	2.65	2.50	16.3	84.9	23.3	14.5	21.1	11.6	6.49	4.68	19.4	Jun 10	154	10.7	2.44	1967
1968	2.87	2.48	2.15	2.08	26.9	86.6	35.7	23.0	19.4	19.6	7.14	4.49	20.7	May 30	193	13.7	2.04	1968
1969	3.45	3.18	2.91	2.66	21.6	72.8	50.4	29.4	34.8	9.6	5.54	5.27	20.7	Jun 14	145	20.5	2.63	1969
1970	3.67	2.80	1.86	1.79	16.4	71.4	30.7	13.8	30.0	11.80	11.80	6.75	22.1	Jul 17	150	11.5	1.70	1970
1971	4.33	3.34	2.84	2.92	19.6	64.6	54.7	25.5	21.6	12.6	4.77	3.58	18.4	Jun 29	117	14.1	2.75	1971
1972	3.09	2.86	2.38	2.25	17.9	89.8	64.3	28.1	22.3	13.1	7.55	4.38	21.5	Jul 01	170	18.0	2.12	1972
1973	3.66	3.43	2.84	2.22	29.3	84.5	46.9	19.7	25.2	13.7	5.79	4.12	20.3	Jun 16	123	10.2	2.58	1973
1974	2.74	2.19	1.88	2.06	23.8	81.6	50.1	14.1	13.6	22.0	8.31	4.81	12.1	Jun 04	87	10.4	1.81	1974
1975	3.02	2.54	2.51	2.28	33.7	61.3	31.3	26.5	20.9	30.5	12.50	5.55	19.4	Jun 05	127	17.6	2.16	1975
1976	2.99	2.75	2.28	2.32	33.7	61.3	31.3	26.5	20.9	30.5	12.50	5.55	19.4	Jun 05	127	17.6	2.16	1976
1977	4.68	3.69	3.47	3.18	41.5	67.5	34.5	17.0	30.5	19.2	9.37	4.63	20.0	May 27	142	9.90	3.01	1977
1978	3.07	2.87	2.14	2.07	11.5	70.1	27.1	10.4	13.3	13.7	5.56	4.01	13.8	Jun 11	113	7.97	1.89	1978
1979	3.54	2.61	1.84	1.95	28.5	46.6	28.0	27.3	32.5	16.2	6.68	3.90	16.7	May 31	154	16.8	1.50	1979
1980	3.21	2.98	2.69	2.79	22.5	62.5	32.3	21.5	17.0	12.2	6.55	4.83	15.9	Jun 10	100	13.0	2.43	1980
1981	3.97	3.24	3.21	3.28	18.9	76.6	65.5	17.5	21.7	13.7	5.20	4.00	19.8	Jun 05	178	12.3	2.99	1981
1982	3.00	1.25	2.41	2.75	12.1	75.0	47.7	16.2	18.0	45.5	12.00	5.33	20.2	Jun 16	127	13.1	0.435	1982
1983	2.16	1.62	1.73	2.10	21.2	69.4	40.5	14.4	28.3	26.6	6.61	2.63	18.1	Jun 22	183	10.1	1.49	1983
1984	2.04	2.14	2.28	3.48	37.8	69.4	50.6	26.7	17.4	14.3	8.29	5.39	20.0	Jul 13	111	11.6	1.97	1984
1985	2.83	2.26	2.45	3.70	51.6	59.3	24.8	14.1	10.6	13.2	8.05	5.46	16.6	Jun 05	137	7.82	2.16	1985
1986	2.71	2.05	2.79	3.53	44.4	78.4	29.1	11.3	9.0	7.3	5.13	4.94	16.8	Jun 01	194	17.6	1.76	1986
1987	3.37	3.38	2.21	2.80	38.9	67.9	29.5	21.3	39.6	30.4	8.23	5.50	21.1	Jun 07	129	13.5	2.08	1987
1988	4.61	4.28	3.71	3.83	18.6	106.0	43.2	16.6	15.4	15.0	8.04	4.95	20.3	Jun 15	189	10.2	3.46	1988
1989	3.46	2.55	2.42	3.89	53.1	55.6	22.2	10.8	11.3	16.7	9.75	4.22	16.4	May 17	112	7.98	2.19	1989
1990	3.39	3.25	3.05	4.09	34.8	76.3	40.5	17.9	39.4	19.3	7.42	4.78	21.2	Sep 22	143	14.4	2.77	1990
1991	3.15	2.24	1.86	2.94	38.2	28.7	13.4	14.0	15.7	11.7	5.88	4.12	11.9	May 14	102	9.73	1.72	1991
Normal	3.24	2.66	2.43	2.53	24.7	73.3	39.8	20.4	21.3	17.9	7.57	4.77	18.8	Average	148	12.6	2.12	m <sup>3</sup> /s
	10	7	7	7	75	214	120	62	62	54	22	14	667	10-Year	196	8.57	1.30	m <sup>3</sup> /s

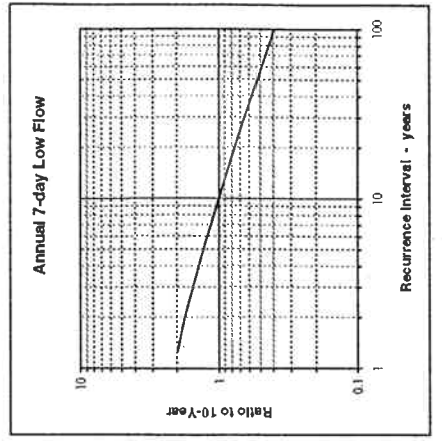
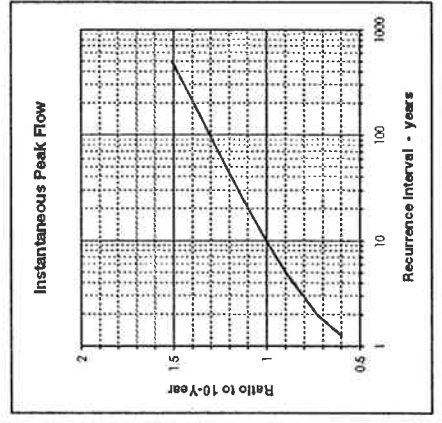
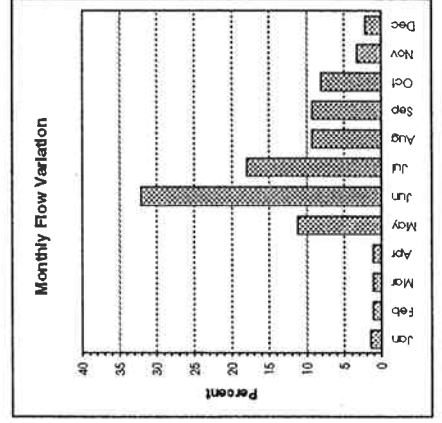
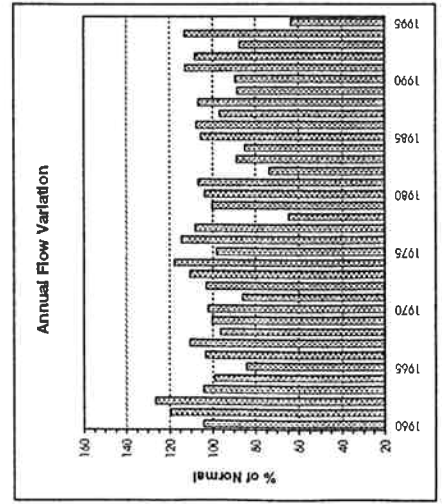
Median Elevation = 1384 m

888 km<sup>2</sup>

Drainage Area =

7-Day Low Flow

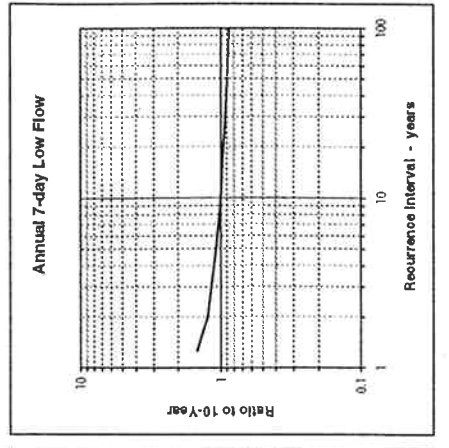
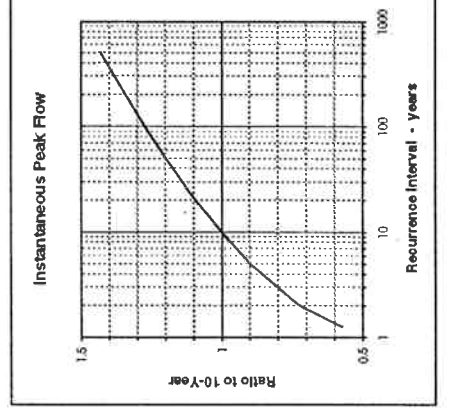
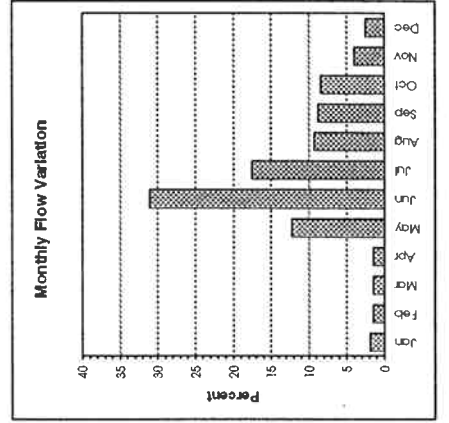
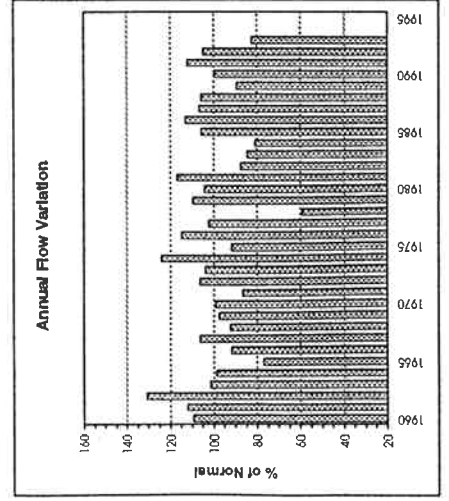
Instantaneous Peak Flow



**DEASE RIVER AT MCDAME 10AC002**

Year	Monthly and Annual Discharge in m <sup>3</sup> /s												7-Day Low Flow	Annual	Year		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				Mean	date
1960	23.0	20.7	20.8	22.3	197	411	272	115	92	108	49.2	28.9	113	Jun 26	620	80.8	1960
1961	24.9	18.7	15.3	15.0	207	474	198	81	108	132	81.1	38.2	116	Jun 03	739	66.2	1961
1962	27.2	25.5	16.4	10.3	602	389	389	141	129	88	53.3	36.6	136	Jun 16	821	129	1962
1963	28.2	25.1	22.2	20.9	223	361	249	79	99	79	40.5	31.1	105	Jun 18	464	52.4	1963
1964	25.5	23.2	21.5	19.8	53	537	207	124	80	69	47.5	26.7	103	Jun 07	862	73.3	1964
1965	24.3	21.0	16.3	15.6	96	322	166	64	80	78	47.0	30.1	80	Jun 03	547	53.2	1965
1966	22.6	17.2	14.3	12.5	86	335	158	154	127	124	56.5	36.3	95	Jun 12	501	109	1966
1967	25.3	20.6	16.7	16.3	138	564	181	89	99	94	48.7	32.0	110	Jun 04	832	73.4	1967
1968	19.8	18.5	18.2	18.0	160	295	172	85	189	102	47.1	27.7	96	May 22	450	62.7	1968
1969	13.9	12.6	12.3	12.2	165	297	130	209	181	52.7	39.7	39.7	101	May 26	569	97.2	1969
1970	27.1	21.5	18.6	16.6	110	381	180	115	129	142	56.9	33.0	103	Jun 05	762	91.0	1970
1971	22.7	19.5	16.9	15.8	131	445	143	71	88	67	35.6	25.3	90	Jun 10	680	60.5	1971
1972	20.2	16.7	13.9	12.4	153	481	171	115	120	146	47.4	30.3	110	May 31	968	94.3	1972
1973	23.7	21.1	17.6	16.8	142	374	236	139	181	82	32.6	27.2	108	Jun 14	538	118	1973
1974	20.5	16.3	12.3	12.1	109	380	388	196	91	186	84.6	39.6	129	Jul 18	651	77.3	1974
1975	27.3	23.1	18.5	16.3	118	287	252	143	113	79	33.8	27.5	95	Jun 30	470	87.5	1975
1976	21.0	17.4	15.8	16.6	149	440	336	151	126	77	47.9	28.6	119	Jul 02	634	101	1976
1977	25.7	21.6	17.3	16.0	178	430	250	110	97	66	31.6	20.3	106	Jun 16	561	76.6	1977
1978	17.5	14.9	12.9	15.8	84	186	82	70	71	102	49.0	32.5	62	Jun 04	309	57.0	1978
1979	24.9	17.2	17.1	18.5	163	519	295	93	72	84	35.7	24.6	114	Jun 04	748	54.4	1979
1980	19.4	19.4	15.4	15.7	180	286	200	195	126	150	60.0	27.6	108	Jun 06	484	105	1980
1981	19.7	16.2	17.8	19.9	290	429	212	86	129	111	81.0	39.0	121	May 30	796	52.7	1981
1982	25.7	25.7	21.0	17.5	74	481	162	67	82	80	35.7	21.6	91	Jun 12	691	52.1	1982
1983	17.0	16.2	15.5	15.8	136	250	153	123	154	99	42.5	28.4	88	Jun 01	548	85.4	1983
1984	22.1	20.0	19.1	23.1	113	300	170	104	101	73	38.1	26.1	84	Jun 25	426	81.7	1984
1985	20.1	17.4	16.9	19.1	123	342	102	102	114	87	38.5	24.5	110	Jun 06	800	76.2	1985
1986	23.8	16.3	16.2	15.6	81	389	238	98	102	271	101.0	49.6	117	Jun 08	576	76.5	1986
1987	33.4	24.8	23.0	23.5	136	401	237	99	125	141	53.2	28.7	111	Jun 23	631	71.5	1987
1988	23.4	22.0	20.5	26.6	230	345	246	145	96	79	44.9	34.0	110	Jun 10	514	75.8	1988
1989	25.7	23.2	20.9	32.2	290	307	134	80	52	62	46.2	37.7	93	Jun 05	518	42.0	1989
1990	26.4	22.2	25.1	26.9	261	464	171	75	62	47	30.0	27.5	103	Jun 02	928	57.7	1990
1991	22.0	19.3	15.8	23.1	227	284	154	108	213	178	99.0	49.6	116	Jun 08	424	71.7	1991
1992	34.7	27.1	26.2	34.3	147	545	195	79	80	76	34.6	27.3	109	Jun 16	808	59.9	1992
1993	22.4	17.7	14.5	31.0	247	269	136	70	55	77	55.1	28.6	86	May 21	431	48.2	1993
1994																	1994
1995																	1995

Normal	mm	9	7	7	7	18.5	149	392	215	113	111	103	50.0	31.1	104	626	75.4	16.1	m <sup>3</sup> /s
Average	10-Year	847	51.1	12.6															m <sup>3</sup> /s



DEASE RIVER NEAR THE MOUTH 10AC006

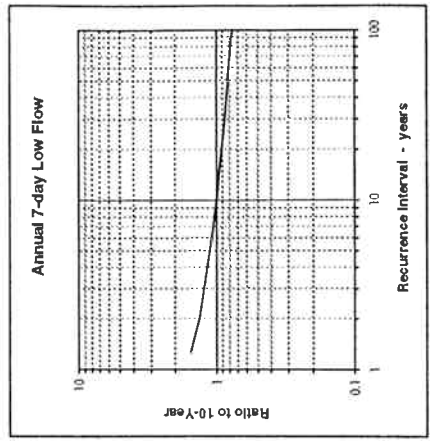
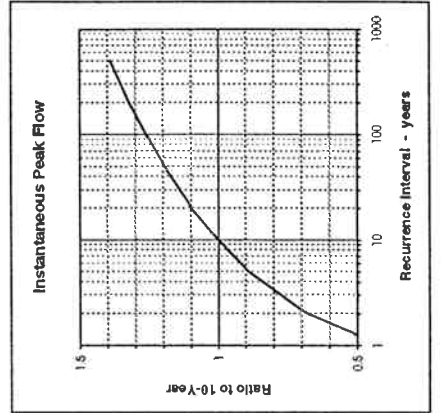
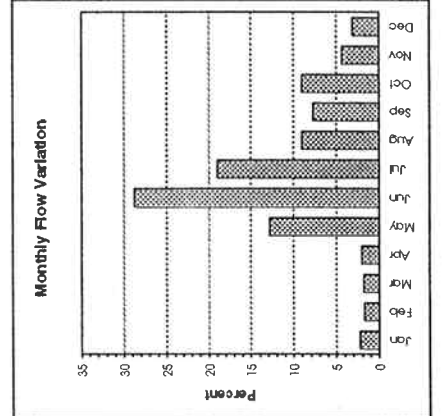
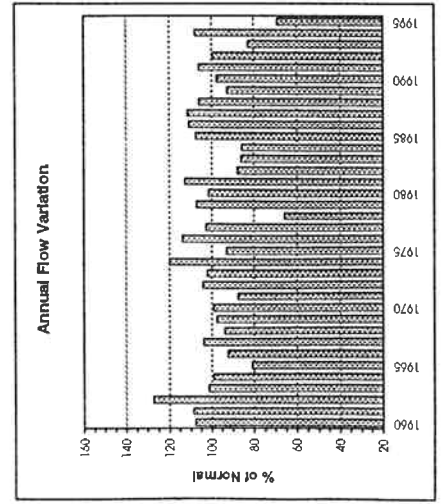
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean	date	m3/s	Annual	Year
1960	37.6	32.0	29.3	38.0	208	511	315	205	201	156	86.9	57.6	157	Jun 26	716	183	1960
1961	43.0	35.6	35.2	41.6	178	737	582	205	212	163	70.9	45.8	196	Jun 06	1160	145	1961
1962	44.2	34.6	34.4	32.3	132	600	442	188	181	434	186.0	109.0	202	Jun 09	868	146	1962
1963	67.9	53.1	50.1	51.8	286	663	455	181	212	247	99.3	64.8	203	Jun 23	1130	123	1963
1964	53.6	45.9	40.4	46.7	330	585	476	266	175	145	85.6	67.8	194	Jul 14	907	143	1964
1965	47.7	42.7	38.4	56.9	447	554	266	173	111	127	90.2	66.8	169	Jun 06	892	97.1	1965
1966	47.1	41.5	47.5	53.0	348	827	324	142	110	88	57.5	52.2	178	Jun 03	1440	103	1966
1967	44.6	40.6	34.5	50.5	327	520	293	178	333	275	133.0	87.7	194	Jun 08	634	130	1967
1968	62.1	44.7	39.7	43.3	201	899	371	157	137	130	58.3	39.9	182	Jun 17	1380	104	1968
1969	39.0	33.8	29.8	51.0	381	487	267	146	106	140	85.0	39.9	151	Jun 03	733	97.2	1969
1970	31.0	25.2	22.3	37.8	321	598	419	185	328	234	88.7	64.3	197	Jun 14	860	155	1970
1971	49.6	44.7	42.4	94.6	254	273	180	177	168	121	52.8	56.4	127	Jun 19	408	138	1971
1972																	1972
1973																	1973
1974																	1974
1975																	1975
1976																	1976
1977																	1977
1978																	1978
1979																	1979
1980																	1980
1981																	1981
1982																	1982
1983																	1983
1984	48.7	40.8	39.3	45.8	276	640	409	194	172	194	96.6	66.3	183	Average	927	130	1984
1985																	1985
1986																	1986
1987																	1987
1988																	1988
1989																	1989
1990																	1990
1991																	1991
1992																	1992
1993																	1993
1994																	1994
1995																	1995
Normd	9	7	7	8	51	114	75	36	31	36	17	12	397	10-Year	1338	98.4	m3/s

Median Elevation = 1250 m

Drainage Area = 14,500 km<sup>2</sup>

Monthly and Annual Discharge in m<sup>3</sup>/s

7-Day Low Flow

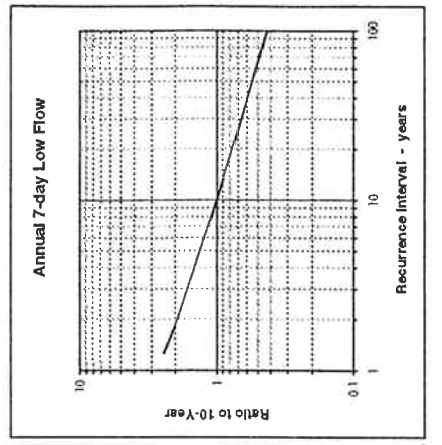
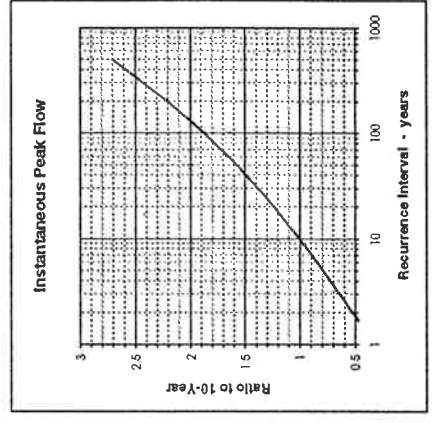
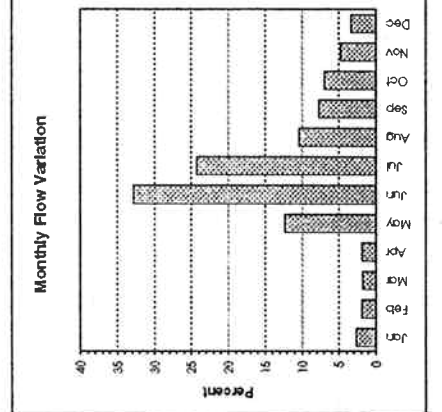
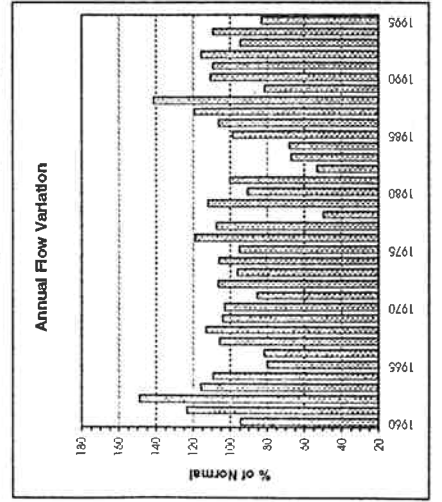


# RANCHERIA RIVER NEAR THE MOUTH 10AA0004

location: 60°13. 129°33

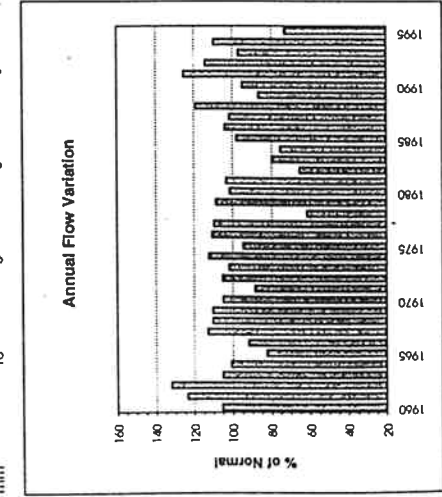
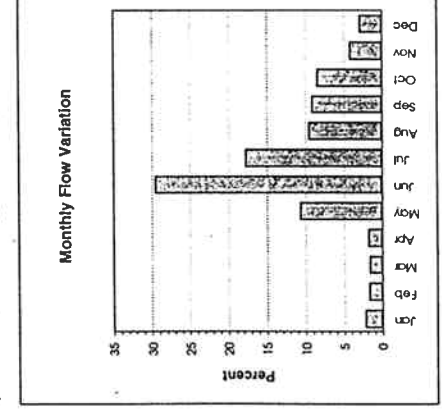
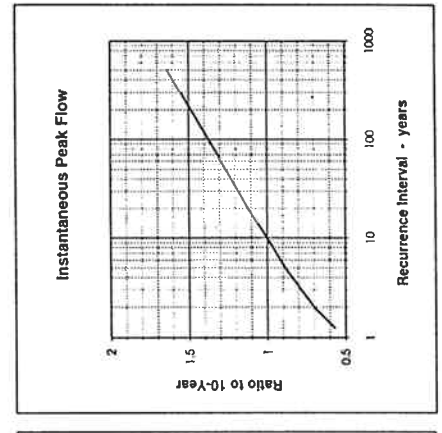
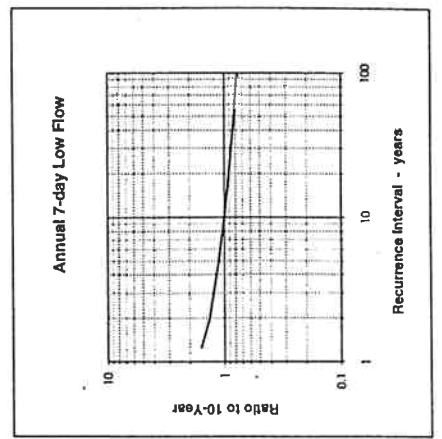
Monthly and Annual Discharge in m<sup>3</sup>/s      Drainage Area = 5,100 km<sup>2</sup>      Median Elevation = 1263 m

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean	date	Instantaneous Peak Flow	7-Day Low Flow	Year	
1960	12.1	11.0	10.7	9.8	51.7	172	131	54.7	48.4	38.3	19.7	15.6	46.0	Jun 05	355	42.9	1985	
1961	12.5	8.0	8.8	14.0	70.9	209	139	63.5	52.6	49.4	27.6	18.6	60.1	Jun 23	261	7.62	1986	
1962	21.9	15.0	12.8	14.5	83.6	206	240	85.7	54.5	44.3	31.1	20.6	72.5	Jul 14	516	47.3	1987	
1963	16.9	14.3	12.1	13.1	54.1	135	73	48.3	39.4	42.7	24.2	18.4	56.3	Jun 05	191	32.3	1989	
1964	15.1	12.7	7.9	3.4	92.9	251	111	46.3	33.3	25.0	19.5	15.5	53.8	Jun 01	581	31.5	1990	
1965	14.2	12.5	11.3	12.4	76.8	146	86	49.5	92.2	69.9	40.0	28.6	38.9	Jun 23	184	41.1	1991	
1966	13.2	11.5	9.9	13.9	60.0	240	121	61.4	47.3	38.7	22.1	19.1	53.3	Jun 16	365	43.5	1992	
1967	21.3	17.3	13.8	13.0	104.0	126	79	47.0	40.0	66.0	23.4	18.6	55.2	May 30	205	31.5	1993	
1968	13.6	11.0	9.6	11.2	84.5	163	117	58.2	70.4	61.3	25.2	21.7	24.2	Jul 02	246	42.8	1994	
1969	11.4	8.3	6.9	7.8	114.0	70.6	44.3	51.2	46.1	34.1	20.7	18.5	54.5	May 12	227	34.5	1995	
1970	20.6	18.7	15.9	27.6									44.1					
1971	15.5	12.3	10.6	11.2	70.6	195	139	59.7	45.6	39.9	28.1	19.2	48.7	Average	344	39.5	1981	
1972	8	6	6	6	37	99	73	31	23	21	14	10	301	10-Year	572	31.3	1982	
1973																		1983
1974																		1984
1975																		1985
1976																		1986
1977																		1987
1978																		1988
1979																		1989
1980																		1990
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1985																		1995
1986																		1996
1987																		1997
1988																		1998
1989																		1999
1990																		2000
1991																		2001
1992																		2002
1993																		2003
1994																		2004
1995																		2005
Normal																		1960-1995



**SWIFT RIVER NEAR SWIFT RIVER 9AE003**

Year	Monthly and Annual Discharge in m <sup>3</sup> /s												7-Day Low Flow	Instantaneous Peak Flow	date	Mean	Dec	Nov	Oct	Sep	Aug	Jul	Jun	May	Apr	Mar	Feb	Jan	Year		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec																		Mean	date
1960	12.4	10.2	8.1	8.0	81.2	147	63.9	62.8	54.1	36.8	24.0	50.3	196	Jun 21	50.3	240	54.1	62.8	63.9	95	147	172	100	60.1	48	8	8	8	10.7	12.8	1960
1961	16.4	11.8	9.8	10.1	99.6	226	57.6	71.3	50.5	22.6	19.8	59.0	380	Jun 09	59.0	19.8	50.5	71.3	57.6	111	226	134	80	48	8	8	8	10.7	16.4	1961	
1962	17.6	15.3	12.2	11.0	28.5	260	62.4	77.7	50.0	30.5	27.6	63.0	411	Jun 19	63.0	27.6	50.0	77.7	62.4	163	260	134	80	48	8	8	8	10.7	17.6	1962	
1963	21.1	21.1	14.7	11.2	76.5	260	38.9	49.2	46.4	24.5	15.0	50.2	226	Jun 24	50.2	15.0	46.4	49.2	38.9	121	260	134	80	48	8	8	8	10.7	21.1	1963	
1964	13.0	11.7	11.0	10.9	27.0	265	18.1	34.9	34.9	24.2	12.3	39.3	439	Jun 11	39.3	12.3	34.9	34.9	18.1	85	265	134	80	48	8	8	8	10.7	13.0	1964	
1965	10.3	8.8	7.7	7.1	45.4	167	37.2	52.2	42.4	22.4	16.5	43.8	252	Jun 12	43.8	16.5	42.4	52.2	37.2	85	167	134	80	48	8	8	8	10.7	10.3	1965	
1966	9.7	9.0	8.5	8.3	33.7	167	59.8	49.9	63.8	23.6	20.7	53.8	309	Jun 07	53.8	20.7	63.8	49.9	59.8	75	167	134	80	48	8	8	8	10.7	9.7	1966	
1967	13.9	12.0	10.5	11.1	67.3	245	47.9	47.6	47.4	24.5	20.7	53.8	309	Jun 07	53.8	20.7	47.4	47.6	47.9	98	245	134	80	48	8	8	8	10.7	13.9	1967	
1968	12.9	10.8	10.6	10.5	75.7	150	61.7	98.6	55.3	25.6	18.5	52.5	234	May 26	52.5	18.5	55.3	98.6	61.7	100	150	134	80	48	8	8	8	10.7	12.9	1968	
1969	11.0	6.7	5.9	8.9	105.0	141	108.0	69.6	104.0	32.7	19.6	50.0	283	Oct 01	50.0	19.6	104.0	69.6	108.0	76	141	134	80	48	8	8	8	10.7	11.0	1969	
1970	13.8	11.7	11.2	12.4	55.5	145	45.7	49.6	35.5	21.9	14.3	42.2	279	Jun 21	42.2	14.3	35.5	49.6	45.7	77	145	134	80	48	8	8	8	10.7	13.8	1970	
1971	12.9	12.0	10.6	11.3	50.0	186	42.5	47.6	49.3	22.3	13.3	50.2	291	Jun 01	50.2	13.3	49.3	47.6	42.5	86	186	134	80	48	8	8	8	10.7	12.9	1971	
1972	9.7	8.6	7.8	7.6	68.0	227	56.1	47.6	33.2	17.2	12.2	48.6	392	Jun 16	48.6	12.2	33.2	47.6	56.1	104	227	134	80	48	8	8	8	10.7	9.7	1972	
1973	8.8	8.3	9.3	12.2	61.0	174	76.2	65.9	32.2	17.2	12.2	53.5	292	Jun 16	53.5	12.2	32.2	65.9	76.2	104	174	134	80	48	8	8	8	10.7	8.8	1973	
1974	8.0	7.2	6.4	7.5	61.8	158	87.0	43.4	40.4	32.8	20.2	53.5	292	Jun 16	53.5	20.2	40.4	43.4	87.0	146	158	134	80	48	8	8	8	10.7	8.0	1974	
1975	12.9	8.1	7.0	7.9	48.1	142	56.5	48.6	38.1	21.1	16.2	45.1	224	Jul 01	45.1	16.2	38.1	48.6	56.5	142	142	134	80	48	8	8	8	10.7	12.9	1975	
1976	14.2	11.0	9.0	8.9	48.0	203	60.1	51.0	38.0	14.3	14.3	45.1	224	Jul 01	45.1	14.3	38.0	51.0	60.1	149	203	134	80	48	8	8	8	10.7	14.2	1976	
1977	14.9	13.1	10.0	16.8	72.9	200	118	31.4	40.3	21.6	15.5	51.8	255	Jun 08	51.8	15.5	40.3	31.4	118	94	200	134	80	48	8	8	8	10.7	14.9	1977	
1978	11.4	9.6	8.4	9.7	28.9	94	29.4	38.5	48.3	23.9	16.5	51.8	255	Jun 08	51.8	16.5	48.3	38.5	29.4	155	94	134	80	48	8	8	8	10.7	11.4	1978	
1979	11.4	8.2	8.5	9.1	55.5	194	50.4	52.3	43.5	35.9	17.8	49.1	251	Jun 11	49.1	17.8	43.5	52.3	50.4	69	194	134	80	48	8	8	8	10.7	11.4	1979	
1980	13.0	11.6	9.8	10.7	65.3	139	72.4	82.4	52.6	27.3	15.2	49.1	251	Jun 11	49.1	15.2	82.4	82.4	72.4	111	139	134	80	48	8	8	8	10.7	13.0	1980	
1981	15.0	12.4	12.4	11.1	111.0	140	43.1	74.1	21.2	17.1	13.2	31.1	205	Jun 11	31.1	13.2	21.2	74.1	43.1	74	140	134	80	48	8	8	8	10.7	15.0	1981	
1982	10.7	11.0	9.7	9.3	29.0	128	31.8	26.6	44.5	21.9	13.1	38.0	289	Jun 02	38.0	13.1	44.5	26.6	31.8	65	128	134	80	48	8	8	8	10.7	10.7	1982	
1983	10.5	8.4	7.6	8.5	47.0	128	43.9	63.7	44.5	19.2	13.0	38.0	289	Jun 02	38.0	13.0	44.5	63.7	43.9	58	128	134	80	48	8	8	8	10.7	10.5	1983	
1984	8.9	6.9	6.6	9.7	52.4	131	44.3	39.1	30.5	19.2	13.0	38.0	289	Jun 02	38.0	13.0	30.5	39.1	44.3	70	131	134	80	48	8	8	8	10.7	8.9	1984	
1985	11.3	9.9	9.1	8.5	47.5	174	48.2	47.9	38.6	17.6	14.1	46.6	331	Jun 06	46.6	14.1	38.6	47.9	48.2	131	174	134	80	48	8	8	8	10.7	11.3	1985	
1986	11.3	6.6	6.6	7.9	31.9	164	55.8	48.3	47.2	21.3	17.5	48.4	308	Jun 23	48.4	17.5	47.2	48.3	55.8	125	164	134	80	48	8	8	8	10.7	11.3	1986	
1987	15.6	13.2	10.9	12.9	88.0	184	44.5	44.0	47.2	21.3	17.5	48.4	308	Jun 23	48.4	17.5	47.2	44.0	44.5	155	184	134	80	48	8	8	8	10.7	15.6	1987	
1988	13.6	12.5	11.7	15.7	88.0	173	44.5	44.0	47.2	21.3	17.5	48.4	308	Jun 23	48.4	17.5	47.2	44.0	44.5	155	173	134	80	48	8	8	8	10.7	13.6	1988	
1989	12.9	10.5	10.2	23.1	100.0	109	42.6	35.9	44.7	25.5	21.6	41.2	184	Jun 01	41.2	21.6	44.7	35.9	42.6	57	109	134	80	48	8	8	8	10.7	12.9	1989	
1990	15.9	12.6	10.8	14.8	91.3	202	33.7	29.0	24.8	14.4	12.1	45.2	204	Jun 23	45.2	12.1	24.8	29.0	33.7	81	202	134	80	48	8	8	8	10.7	15.9	1990	
1991	11.0	10.3	9.2	14.7	94.7	170	60.0	112.0	90.6	38.2	25.2	59.7	204	Jun 23	59.7	25.2	90.6	112.0	60.0	79	170	134	80	48	8	8	8	10.7	11.0	1991	
1992	16.6	12.7	12.1	14.1	51.2	259	50.8	44.5	30.3	24.9	19.6	54.4	204	May 30	54.4	19.6	30.3	44.5	50.8	109	259	134	80	48	8	8	8	10.7	16.6	1992	
1993	14.6	11.8	10.3	30.0	110.0	129	37.0	40.6	53.0	34.0	18.9	46.2	204	May 30	46.2	18.9	53.0	40.6	37.0	63	129	134	80	48	8	8	8	10.7	14.6	1993	
1994	12.0	8.7	6.6	15.2	92.3	172	52.2	70.5	61.8	24.7	19.3	52.2	160	May 15	52.2	19.3	61.8	70.5	52.2	89	172	134	80	48	8	8	8	10.7	12.0	1994	
1995	16.9	14.7	12.9	15.3	79.9	69	40.8	51.2	41.8	22.6	16.5	34.9	160	May 15	34.9	16.5	41.8	51.2	40.8	36	69	134	80	48	8	8	8	10.7	16.9	1995	
Normal	12.8	10.7	9.48	10.8	60.1	172	53.9	53.1	47.8	24.2	16.4	47.6	266	Average	47.6	16.4	47.8	53.1	53.9	100	172	134	80	48	8	8	8	10.7	12.8	m <sup>3</sup> /s	





# TURNAGAIN RIVER ABOVE SANDPILE CREEK 10BA001

Year	Monthly and Annual Discharge in m <sup>3</sup> /s												7-Day Low Flow	Annual	Year		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				Mean	date
1960	13.0	12.4	12.0	12.1	89	444	164	99	89	82.9	43.4	22.0	83.0	Jun 07	623	73.0	1960
1961	13.5	12.6	12.9	15.4	118	218	171	89	165	76.9	40.3	21.5	79.6	May 23	396	68.5	1961
1962	10.7	6.4	6.0	15.4	135	254	110	175	146	64.3	26.2	20.1	81.0	May 25	605	91.1	1962
1963	16.2	14.9	14.1	16.0	64	359	182	151	121	107.0	43.9	21.8	92.8	Jun 04	787	109	1963
1964	14.3	12.2	11.4	17.7	92	315	123	76	72	61.0	29.3	20.8	70.0	Jun 10	524	61.5	1964
1965	10.1	10.0	9.2	13.9	138	396	170	133	103	112.0	40.0	20.8	96.3	Jun 01	858	86.8	1965
1966	16.2	12.9	12.9	15.9	100	307	235	140	140	63.8	22.3	15.7	88.4	Jun 15	411	96.0	1966
1967	13.1	12.7	12.4	13.1	61	267	332	188	95	142.0	61.7	25.4	102.6	Jul 17	626	84.3	1967
1968	21.4	16.4	13.4	13.3	78	227	229	143	101	66.7	25.8	20.7	80.1	Jun 28	447	81.8	1968
1969	17.8	14.1	12.7	16.2	93	289	254	135	114	69.4	39.3	21.8	89.8	Jun 16	504	80.7	1969
1970	20.1	17.9	14.7	21.8	119	345	239	122	88	61.5	29.4	17.4	91.6	Jun 05	317	58.9	1970
1971	12.9	11.5	10.6	13.5	55	192	84	76	80	82.4	37.3	23.0	56.6	Jun 29	555	58.0	1971
1972	15.0	11.0	10.5	16.4	98	407	309	91	75	70.2	32.3	20.1	96.3	Jun 03	513	103	1972
1973	12.8	12.8	11.6	16.4	134	265	218	159	117	131.0	55.3	30.3	97.2	Jul 24	513	103	1973
1974	24.6	19.3	18.2	17.6	232	349	197	85	96	83.9	57.0	20.2	100.4	May 27	681	59.7	1974
1975	24.6	19.3	18.2	17.6	37	420	179	105	110	77.3	33.3	20.1	85.0	Jun 12	632	73.2	1975
1976	16.8	15.4	14.9	18.7	109	275	143	112	110	68.7	34.0	16.6	78.2	Jun 01	610	84.6	1976
1977	12.4	12.1	11.5	18.7	45	295	194	169	134	69.4	24.0	17.7	83.6	Jun 25	499	93.1	1977
1978	15.0	11.8	11.8	14.3	105	258	259	100	123	82.7	27.5	20.0	86.1	Jun 08	499	77.4	1978
1979	24.6	19.3	18.2	17.6	51	282	246	99	81	194.0	68.6	45.6	94.4	Jun 22	576	65.7	1979
1980	18.8	19.9	19.9	16.3	101	320	239	122	118	127.0	37.5	25.5	97.9	Jun 11	627	81.0	1980
1981	27.7	20.0	15.1	17.5	154	330	249	129	85	75.7	40.9	29.9	97.4	Jun 05	497	73.1	1981
1982	20.0	16.6	15.9	20.2	217	299	140	86	61	56.1	35.1	24.7	83.3	Jun 02	821	50.3	1982
1983	20.3	16.6	15.5	25.1	396	180	84	84	69	110.0	27.4	21.9	89.5	Jun 22	326	62.2	1983
1984	18.0	15.8	14.7	21.3	174	267	159	94	164	110.0	30.1	21.9	93.5	Jun 16	704	64.9	1984
1985	22.7	18.5	17.0	24.7	89	420	173	72	62	71.8	32.4	23.3	85.4	Jun 21	479	46.1	1985
1986	17.1	14.1	12.2	20.7	245	278	151	79	48	54.5	25.4	16.3	80.5	May 21	479	43.8	1986
Normal	16.5	13.9	12.8	16.4	108	313	202	118	104	86.3	38.0	22.3	88.5	Average	562	74.8	1986
mm	7	5	5	6	44	123	82	48	41	35	15	9	425	10-Year	745	53.3	1986

