

Hakataramea River at Above MHB

M:\22163\Data Tables\71103\[Hakataramea River at Above MHB.xls]Summary

All values are flows in cubic metres per second

Date: 13/12/04

Site No.71103

Version: 1

Catchment Area (km²) **899**

Data period **1964 - 2004**

Low Flow Statistics (Provided by Environment Canterbury, 2004)

Mean Annual Low Flow (MALF) (m ³ /s)	1.13
5 Year Low Flow (m ³ /s)	0.78
10 Year Low Flow (m ³ /s)	0.7

Monthly Statistics

Full Record Statistics

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Means
90% Highest (m ³ /s)	8.88	6.50	10.38	8.22	9.31	8.93	12.09	19.29	15.83	14.37	8.85	10.86	9.39
Mean Flow (m³/s)	4.08	3.42	5.45	4.28	4.68	5.33	7.10	8.93	8.42	7.78	5.46	4.74	5.82
Median Flow (m ³ /s)	2.43	2.26	1.97	2.17	3.59	3.69	4.79	5.64	6.09	6.35	5.42	3.39	5.59
10% Lowest (m ³ /s)	0.94	0.76	0.75	0.86	1.71	1.73	2.21	2.63	2.67	2.52	2.34	1.48	3.21

1980 - 2003 Statistics

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Means
90% Highest (m ³ /s)	9.54	8.52	26.02	6.95	8.55	8.14	11.75	20.03	13.50	14.23	8.66	9.68	9.83
Mean Flow (m³/s)	4.28	3.42	7.04	3.83	4.04	5.07	6.83	8.51	7.73	7.46	5.06	5.00	5.93
Median Flow (m ³ /s)	2.12	2.17	1.93	2.36	3.19	3.33	4.76	5.45	5.51	5.94	3.75	3.55	5.27
10% Lowest (m ³ /s)	0.94	0.71	0.73	0.84	1.49	1.71	2.45	2.49	2.67	2.27	2.31	1.48	2.86

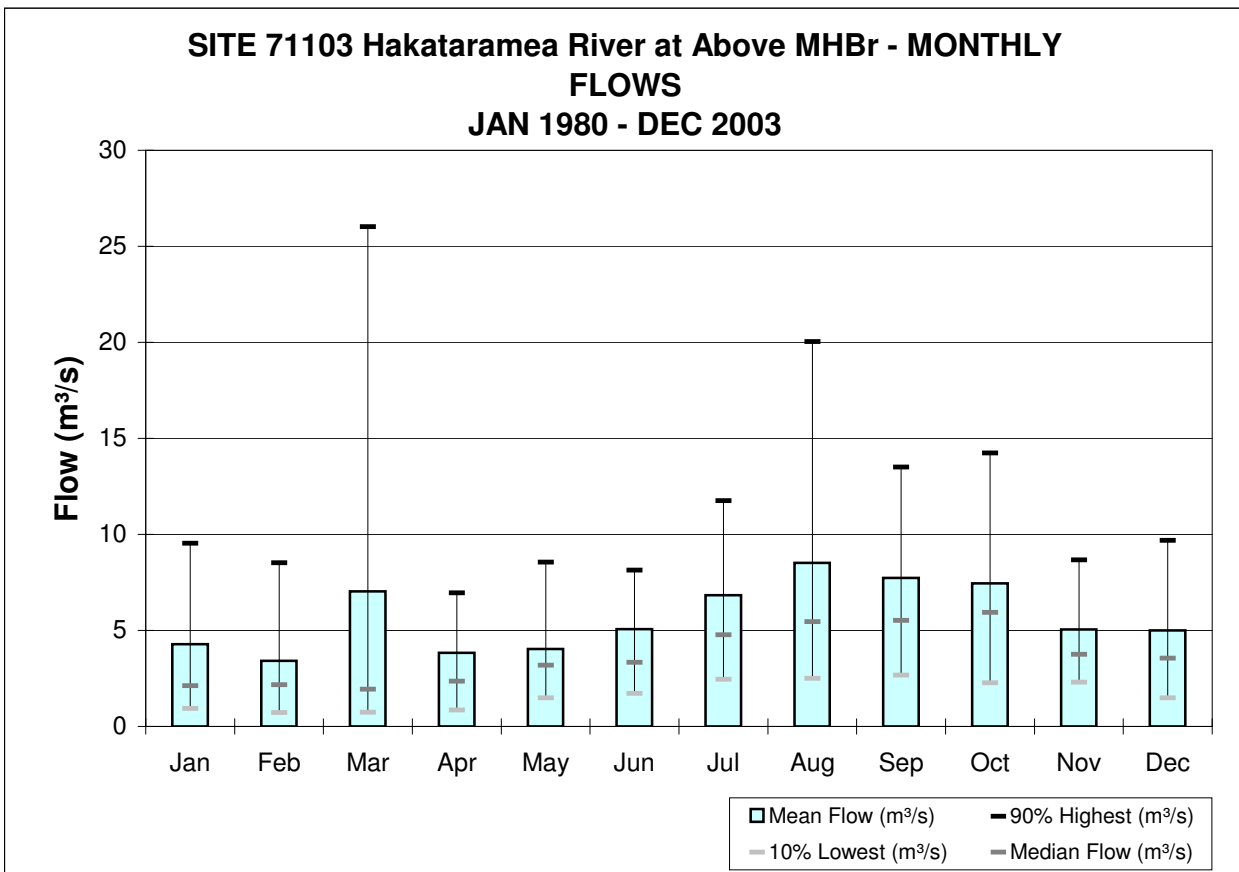
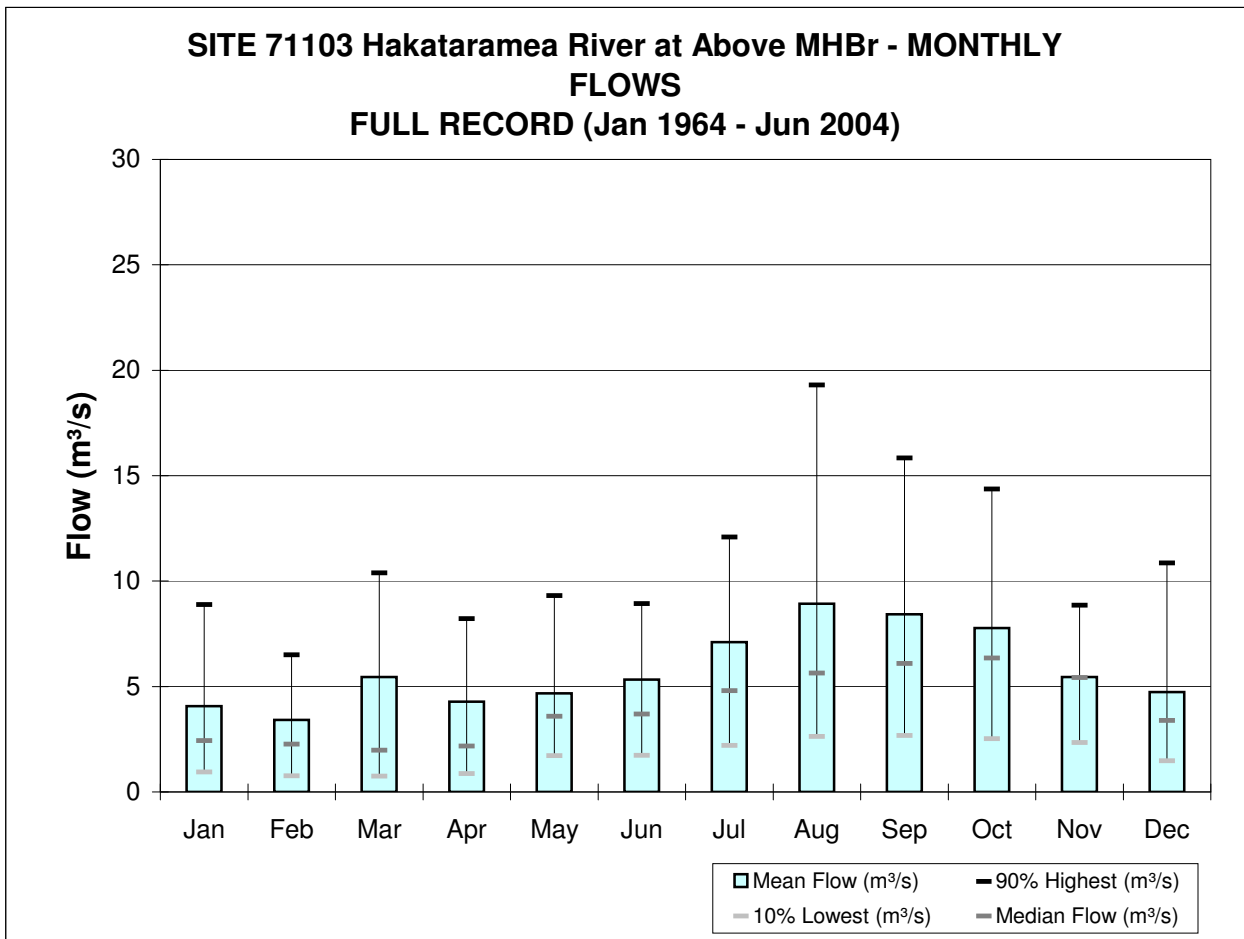
Seasonal Statistics

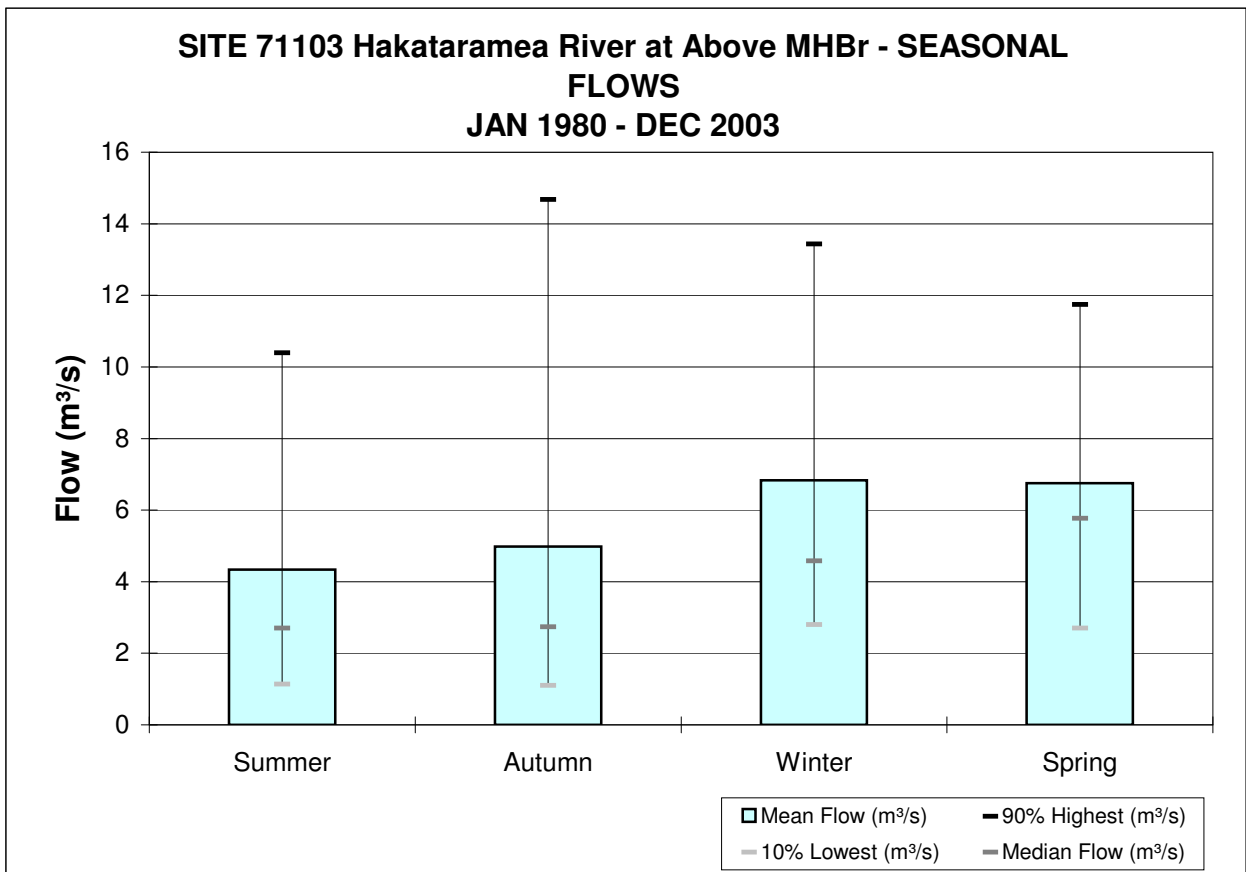
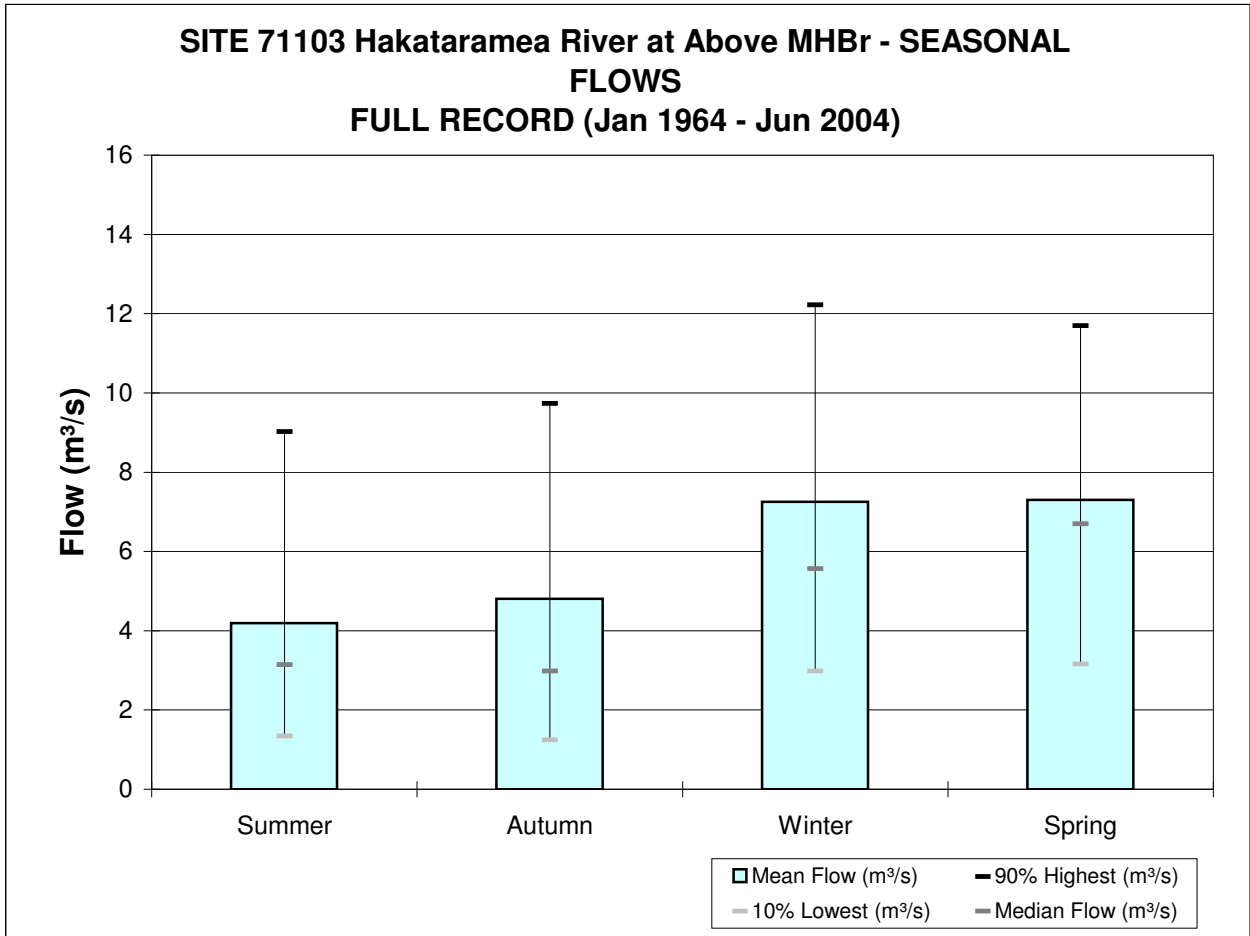
Full Record Statistics

	Summer	Autumn	Winter	Spring	
90% Highest (m ³ /s)	9.02	9.73	12.22	11.69	Summer = Dec, Jan, Feb Autumn = Mar, Apr, May Winter = Jun, Jul, Aug Spring = Sep, Oct, Nov
Mean Flow (m ³ /s)	4.19	4.81	7.25	7.30	
Median Flow (m ³ /s)	3.14	2.98	5.57	6.70	
10% Lowest (m ³ /s)	1.34	1.25	2.98	3.16	

1980 - 2003 Statistics

	Summer	Autumn	Winter	Spring
90% Highest (m ³ /s)	10.39	14.67	13.43	11.74
Mean Flow (m ³ /s)	4.34	4.98	6.83	6.75
Median Flow (m ³ /s)	2.70	2.74	4.58	5.77
10% Lowest (m ³ /s)	1.14	1.10	2.80	2.70





All values are flows in cubic metres per second

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean
1964	1.81	0.74	1.42	0.86	5.75	4.65	6.97	4.53	3.24	3.32	6.05	3.37	3.57
1965	6.77	12.77	4.89	8.22	4.40	5.53	4.55	3.82	2.20	5.54	8.15	2.76	5.74
1966	8.78	3.47	3.71	1.78	2.43	2.41	2.64	9.55	9.15	7.99	4.22	3.39	4.98
1967	7.56	2.99	2.86	3.66	4.14	2.76	3.20	2.39	2.69	4.39	12.00	5.51	4.52
1968	2.74	4.48	6.01	11.74	4.87	16.84	7.57	10.21	6.09	7.03	5.82	3.50	7.23
1969	4.66	6.50	1.51	1.07	1.71	1.46	1.27	?	?	2.83	1.39	5.14	?
1970	2.98	2.61	2.99	1.65	1.73	3.12	5.87	4.57	19.29	7.30	5.08	1.44	4.88
1971	1.59	1.02	1.83	4.17	2.98	13.37	12.06	4.12	5.20	10.80	8.74	2.67	5.73
1972	1.46	0.98	0.95	1.08	13.32	4.88	7.67	4.92	5.84	9.84	3.82	4.26	4.95
1973	1.68	0.87	0.71	1.06	3.10	2.26	1.45	13.28	16.18	4.34	7.59	1.69	4.52
1974	0.95	3.10	4.54	15.00	5.05	7.78	8.56	10.69	6.96	14.24	3.31	1.28	6.80
1975	3.77	5.68	10.38	7.01	9.20	5.37	4.79	18.14	11.40	5.71	5.86	1.84	7.44
1976	1.07	1.94	0.98	0.82	2.40	2.56	2.20	7.47	10.77	14.81	6.82	14.93	5.59
1977	12.87	3.02	1.73	1.38	4.49	5.09	8.23	5.59	5.72	6.66	3.03	1.86	5.00
1978	1.64	1.31	0.80	14.45	8.40	8.91	39.05	31.17	29.55	16.27	6.09	11.73	14.21
1979	2.76	1.20	5.80	8.13	15.22	6.05	3.98	13.49	8.64	11.24	8.83	4.01	7.49
1980	8.42	2.52	10.83	20.59	9.31	29.59	4.76	8.01	6.30	4.80	9.06	4.88	9.92
1981	1.58	1.25	3.14	2.54	3.40	?	?	7.76	4.95	6.59	3.76	1.48	?
1982	0.94	0.76	0.99	3.84	3.51	3.33	2.21	2.69	4.30	9.51	7.29	5.92	3.79
1983	5.89	1.70	1.81	6.82	6.78	8.39	12.19	6.49	12.88	15.42	6.89	10.76	8.05
1984	3.17	2.18	3.63	1.92	2.53	2.32	4.11	4.42	3.55	2.52	2.02	5.36	3.16
1985	1.42	0.69	0.59	0.65	0.82	1.31	2.59	5.26	4.35	2.19	3.32	15.59	3.26
1986	5.16	11.87	46.70	4.20	3.59	4.64	13.16	36.97	13.63	14.03	5.75	3.71	13.62
1987	1.34	3.33	32.53	4.14	10.12	6.56	9.61	5.64	4.44	3.73	2.27	3.06	7.30
1988	?	2.86	1.42	1.32	1.41	1.75	3.18	2.91	2.44	2.47	3.23	1.37	?
1989	0.94	3.84	2.40	1.62	5.17	7.12	4.27	2.41	5.30	8.84	2.29	2.90	3.92
1990	2.12	2.04	1.97	0.97	4.96	2.74	2.43	25.38	7.80	11.91	4.57	2.17	5.80
1991	0.97	2.16	1.36	1.56	2.19	1.71	4.61	9.86	13.19	4.78	7.36	3.38	4.43
1992	3.29	1.30	0.87	0.79	1.68	2.69	9.47	11.03	15.74	21.88	12.68	5.63	7.28
1993	3.10	2.26	1.81	4.60	12.14	4.68	2.54	2.02	7.77	5.57	3.52	22.09	6.05
1994	8.69	13.07	37.14	5.09	2.97	3.81	32.74	10.96	8.56	9.88	5.81	1.99	11.78
1995	1.60	1.17	1.00	3.80	1.94	9.14	5.73	8.83	11.10	14.32	9.52	7.15	6.29
1996	9.75	9.75	6.26	6.24	5.88	6.91	9.98	6.57	5.72	5.83	6.20	4.57	6.96
1997	2.92	5.65	4.45	7.05	4.19	2.95	5.05	4.26	4.06	4.40	2.58	1.49	4.07
1998	0.94	0.52	0.72	0.99	1.34	1.73	4.69	2.84	2.19	6.11	2.35	1.76	2.20
1999	0.90	0.89	1.89	2.04	1.96	2.56	6.54	4.05	2.59	1.54	3.73	4.30	2.77
2000	11.11	5.05	3.96	7.00	5.32	5.64	4.30	23.89	30.99	6.05	2.58	2.65	9.04
2001	1.88	1.08	0.75	0.70	1.81	1.46	5.24	5.18	3.20	4.74	7.73	4.97	3.25
2002	21.36	5.52	1.97	2.17	2.22	3.57	5.61	4.53	2.84	1.71	3.41	1.80	4.74
2003	0.86	0.68	0.66	1.32	1.76	2.09	2.00	2.25	7.57	10.10	3.48	1.08	2.83
2004	1.56	5.54	3.55	1.40	5.52	3.35	?	?	?	?	?	?	?