



# **APPENDIX F**

## **Assessment of Future Variability on Predicted Flows**

Table F.3 Flow Series for Scenarios: Baseline, Future Climate Change and Future Climate Change Including Change in Climate Variability

	Milk River @ 11AA033			Milk River @ 11AA033			Milk River @ 11AA033			Bow River @ 05BH004			Calgary	Bow River @ 05BH004			
	CCSRNIES_A1F1			HADCM3_B2B			NCARPCM_A1B			CCSRNIES_A1F1				HADCM3_A2A			
	Base Q	Future Q	Future Q-modified	Future Q	Future Q-modified	Future Q	Future Q-modified	Base Q	Future Q	Future Q-modified		Future Q	Future Q-modified				
1961	0.87	0.65	0.61	0.79	0.73	0.86	0.83	108	98	103		109	114				
1962	0.83	0.69	0.67	0.81	0.73	0.81	0.77	101	91	94		105	108				
1963	0.59	0.47	0.40	0.64	0.55	0.58	0.48	110	95	99		111	116				
1964	1.13	0.86	0.88	1.11	1.10	1.21	1.27	84	74	73		87	86				
1965	1.54	1.21	1.32	1.54	1.36	1.51	1.64	129	111	120		125	134				
1966	1.17	0.88	0.90	1.08	0.94	1.12	1.16	118	104	110		119	126				
1967	1.33	1.15	1.24	1.27	1.25	1.35	1.44	119	107	114		121	128				
1968	1.46	1.20	1.31	1.49	1.45	1.51	1.64	83	71	69		84	83				
1969	1.37	1.10	1.18	1.34	1.21	1.30	1.38	106	87	89		104	107				
1970	0.97	0.75	0.74	0.92	0.88	0.94	0.93	66	58	53		66	60				
1971	0.86	0.66	0.62	0.88	0.81	0.91	0.89	81	70	68		85	84				
1972	1.20	1.01	1.06	1.23	1.12	1.23	1.29	112	99	104		118	125				
1973	0.63	0.49	0.42	0.59	0.53	0.63	0.54	93	83	84		95	96				
1974	0.96	0.85	0.87	1.02	0.97	1.01	1.01	110	99	105		116	123				
1975	2.05	1.72	1.95	2.05	2.03	2.18	2.48	68	59	54		67	61				
1976	0.87	0.74	0.73	0.84	0.76	0.90	0.88	80	69	67		81	78				
1977	0.53	0.46	0.38	0.53	0.46	0.53	0.42	53	47	39		52	43				
1978	1.41	1.22	1.32	1.27	1.23	1.44	1.55	96	83	85		95	97				
1979	0.96	0.84	0.85	0.93	0.89	0.96	0.95	70	62	59		69	64				
1980	0.65	0.54	0.47	0.62	0.60	0.71	0.64	93	78	78		95	97				
1981	1.04	0.82	0.83	1.08	1.03	1.17	1.21	115	98	103		115	121				
1982	0.78	0.68	0.65	0.81	0.75	0.81	0.77	73	64	61		76	72				
1983	0.35	0.27	0.14	0.31	0.28	0.34	0.18	71	62	58		70	65				
1984	0.41	0.33	0.22	0.42	0.39	0.42	0.27	52	45	36		52	43				
1985	0.68	0.50	0.43	0.55	0.48	0.66	0.58	74	67	64		74	69				
1986	1.12	0.87	0.89	0.93	0.88	1.10	1.13	93	79	79		85	84				
1987	0.61	0.53	0.46	0.58	0.44	0.59	0.49	71	63	59		66	60				
1988	0.26	0.20	0.05	0.25	0.19	0.27	0.09	64	56	51		64	58				
1989	1.52	1.23	1.34	1.60	1.46	1.60	1.75	87	77	77		86	85				
1990	0.85	0.67	0.64	0.74	0.74	0.84	0.80	106	88	91		103	106				
Mean	0.97	0.79	0.79	0.94	0.87	0.98	0.98	90	78	78		90	90				
Stdv	0.40	0.34	0.42	0.41	0.40	0.42	0.53	20.9	18.2	22.7		21.3	26.7				
CV	0.42	0.43	0.54	0.44	0.46	0.43	0.54	0.23	0.23	0.29		0.24	0.30				
Skew	0.52	0.61	0.61	0.64	0.69	0.65	0.65	0.00	0.05	0.05		-0.03	-0.03				
		2%		4%		2%			0%			2%					
PDF	3PMLH	3PMLH	3PMLH	DELTA%	3PMLH	3PMLH	DELTA%	3PMLH	3PMLH	DELTA%	G3	G3	G3	DELTA%	G3	G3	DELTA%
10-YR DRY	0.48	0.39	0.29	-26%	0.46	0.40	-13%	0.49	0.36	-26%	62	54	48	-11%	62	55	-11%
100-YR DRY	0.20	0.16	0.00	-98%	0.20	0.14	-28%	0.21	0.01	-95%	43	38	28	-26%	41	29	-29%
	3PMLH	3PMLH	3PMLH	DELTA%	3PMLH	3PMLH	DELTA%	3PMLH	3PMLH	DELTA%	EV3	EV3	EV3	DELTA%	EV3	EV3	DELTA%
10-YR WET	1.51	1.24	1.35	9%	1.49	1.42	-5%	1.55	1.69	9%	119	104	110	6%	120	127	6%
100-YR WET	2.10	1.75	1.99	14%	2.14	2.06	-4%	2.20	2.50	14%	142	126	137	9%	143	156	9%