General Information

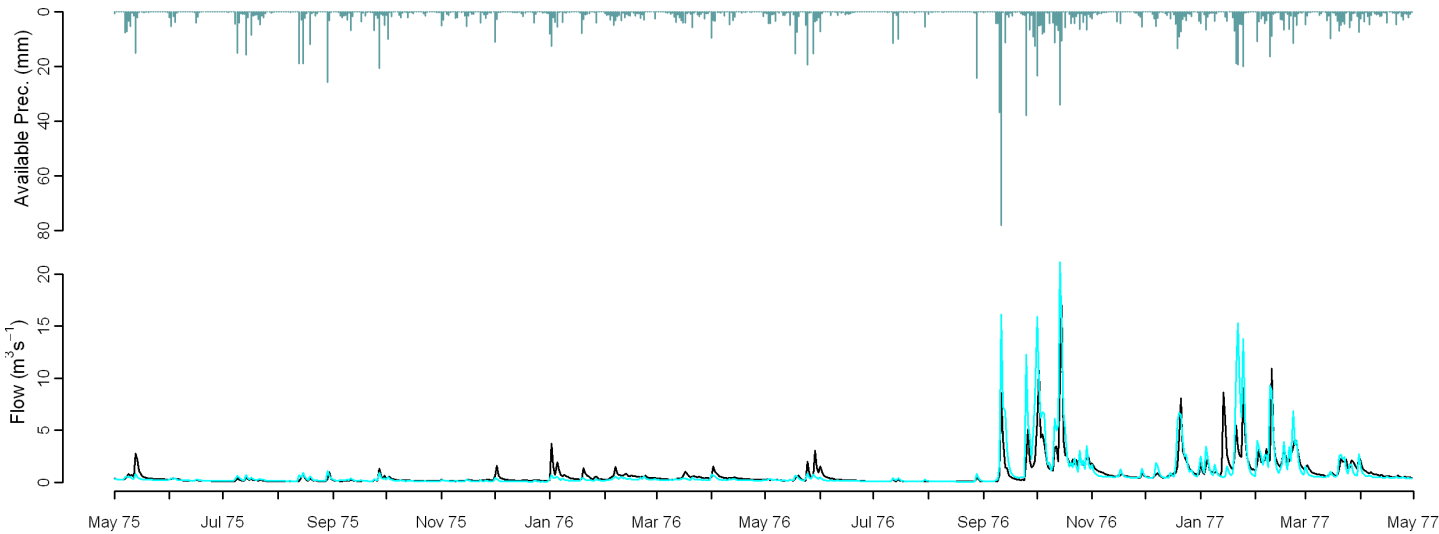| River Name	Gaunless	Catchment Area (km2)	93
Station Name	Bishop Auckland	SAAR (mm) 61-90	730
Station Number	24002	Mean Annual Rain (mm) 62-91	737
Grid Reference	NZ215306	Mean Annual PE (mm) 62-91	529
EA Region	EA-NE	Observed flow record	1961 to 1983

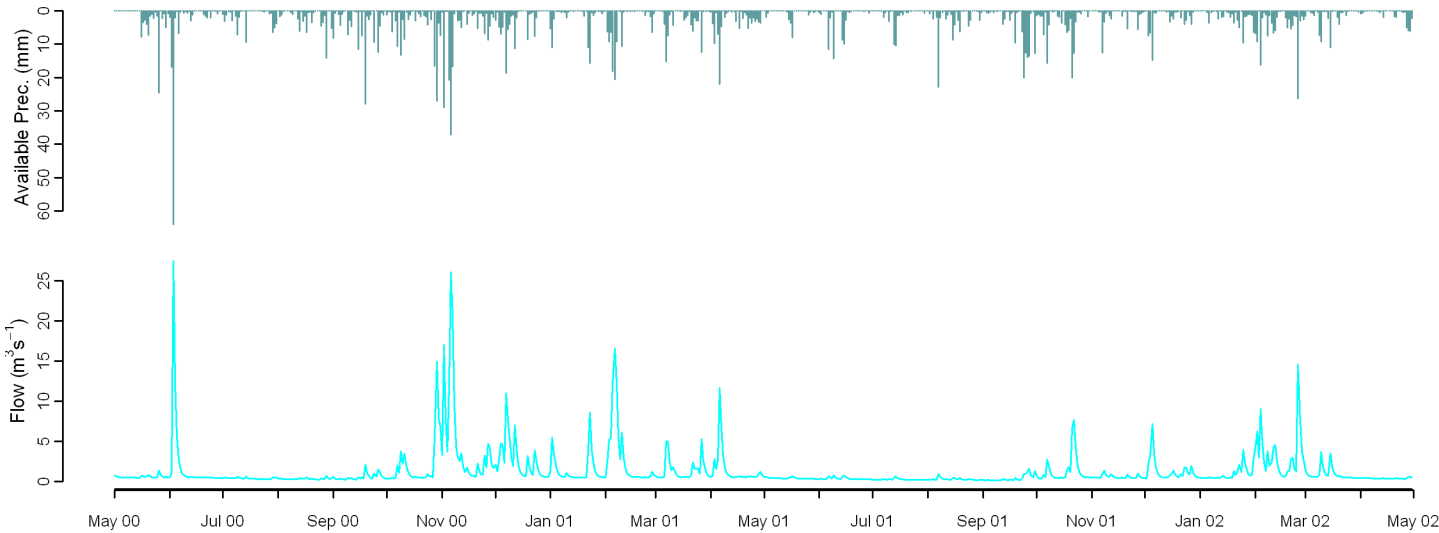**Observed Data**   **Comparison of gauged and simulated flow**   **Model used: CERF**

	Mean Annual	J	F	M	A	M	J	J	A	S	O	N	D	Nash Sutcliffe
MORECS (1971-2005)	-0.5	9.2	6.7	0.6	-11.1	-24.7	-10.8	1.4	4.4	40.2	9.2	-27.0	3.0	0.57
Performance Band	1	1	1	1	2	2	2	2	2	3	1	1	1	2
MORECS (1962-1991)	-5.2	5.6	5.4	-1.4	-15.1	-27.1	-17.5	-15.2	-12.6	-30.4	2.0	-7.5	2.7	0.51

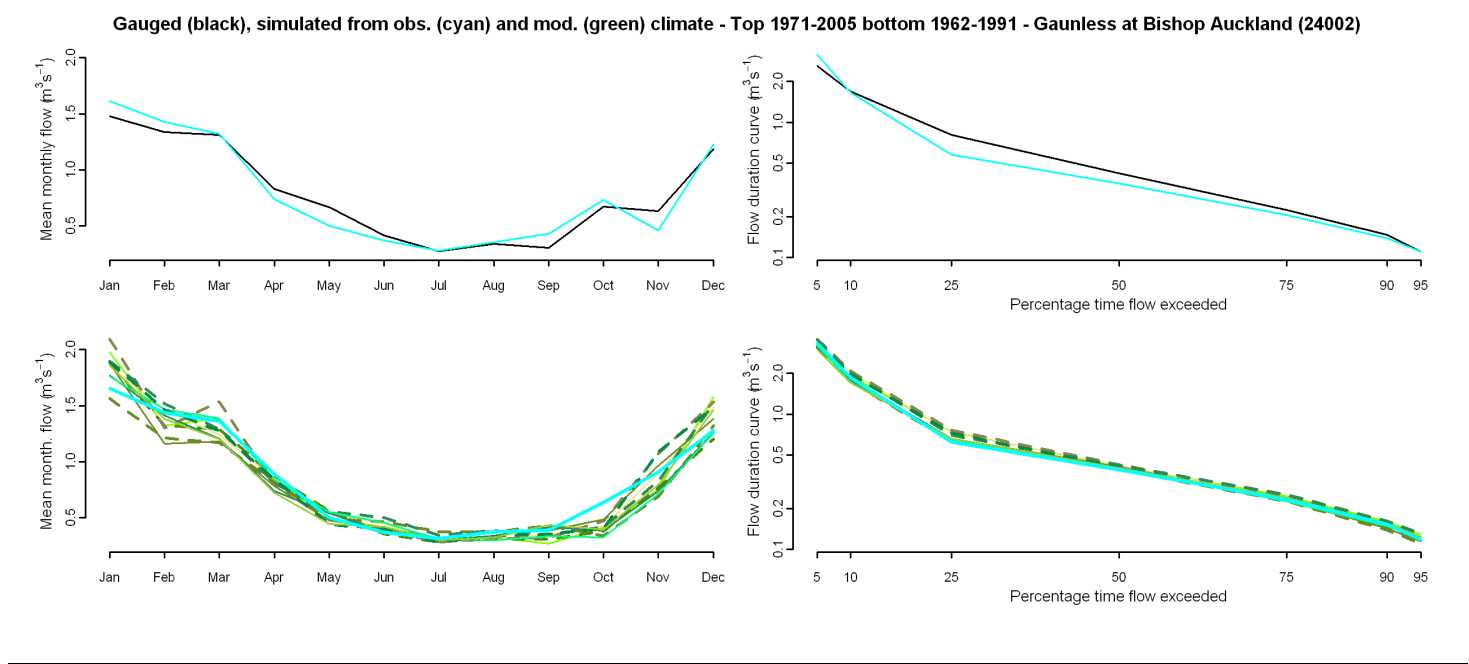|	Q90	Q75	Q50	Q25	Q5	RP2	RP5	RP10	RP20
MORECS (1971-2005)	-5.9	-8.5	-16.5	-28.6	20.3				
Performance Band	1	1	1	1	3				
MORECS (1962-1991)	-17.2	-20.2	-25.8	-31.4	13.4				

Gauged (black) and simulated (cyan) flows from observed climate - Gaunless at Bishop Auckland (24002)

Gauged (black) and simulated (cyan) flows from observed climate - Gaunless at Bishop Auckland (24002)

Comparison of gauged and simulated flow (observed and modelled climate)

Gauged (black), simulated from obs. (cyan) and mod. (green) climate - Top 1971-2005 bottom 1962-1991 - Gaunless at Bishop Auckland (24002)

Percentage difference between flow simulated from observed climate and Future Flows Climate

	afgcx	afixa	afixc	afixh	afixi	afixj	afixk	afixl	afixm	afixo	afixq
Annual	0	-6	2	8	-4	-4	-8	5	-5	1	-6
January	22	4	14	26	12	1	5	16	8	15	11
April	-4	-15	-1	-8	-12	-7	-17	-3	-3	-4	-15
July	-7	-6	2	-8	1	20	-6	10	-6	-11	-3
October	-34	-38	-32	-23	-25	-45	-28	-29	-44	-36	-37
Q90	4	-4	1	7	-9	-8	-4	7	-4	0	2
Q75	5	-1	1	8	-5	-2	-5	10	-4	0	2
Q50	5	1	6	9	2	1	1	10	0	3	2
Q25	18	3	17	24	4	3	5	17	4	16	6
Q5	-3	-8	4	8	-4	-5	-7	11	-5	1	-12
RP2	-12	-21	-17	-5	-6	-8	-8	-6	-7	-8	1
RP10	-20	-21	-9	-17	-13	-10	0	-6	-14	-15	7

Climate change graphs for 2050s

Change between future (2040-2069) and control (1961-1990) simulated flow (green) - Gaunless at Bishop Auckland (24002)