

General Information

River Name	Helmsdale	Catchment Area (km2)	551
Station Name	Kilphedir	SAAR (mm) 61-90	1118
Station Number	2001	Mean Annual Rain (mm) 62-91	1118
Grid Reference	NC997181	Mean Annual PE (mm) 62-91	476
EA Region	SEPA-NW	Observed flow record	1975 to 2005



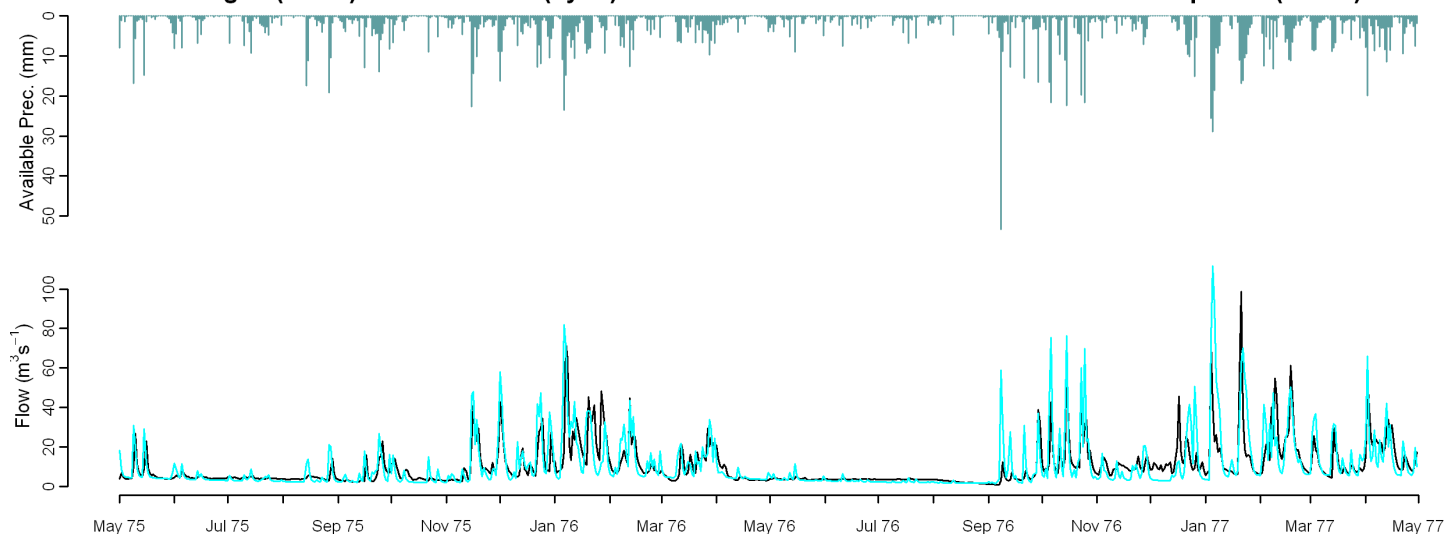
Observed Data

Comparison of gauged and simulated flow

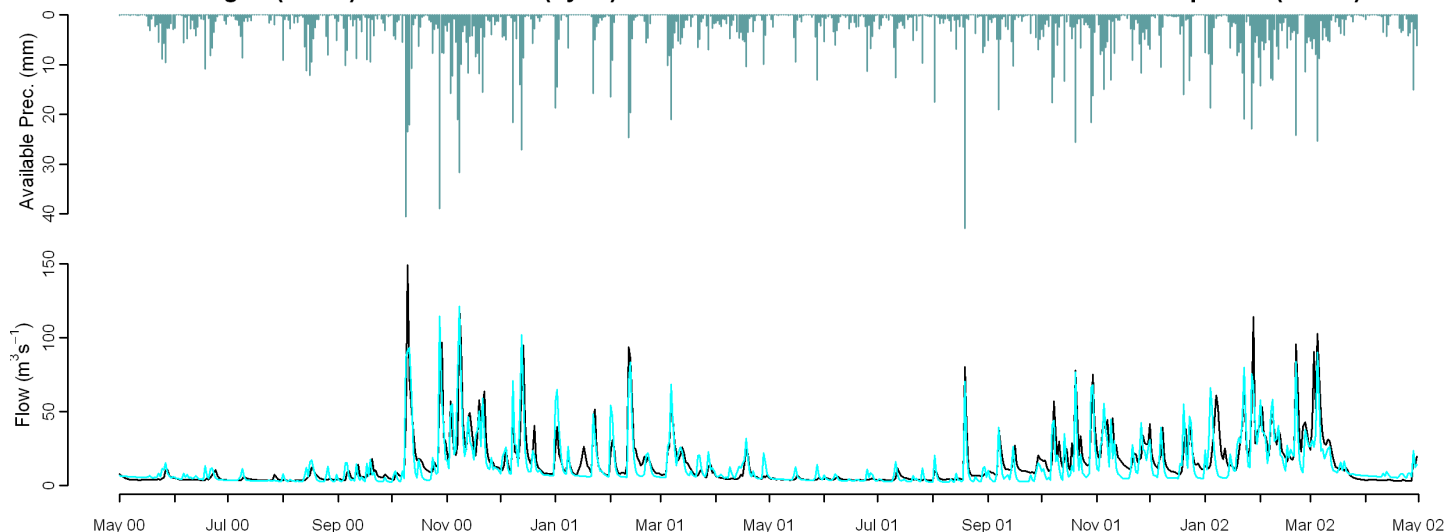
Model used: PDM

	Mean Annual	J	F	M	A	M	J	J	A	S	O	N	D	Nash Sutcliffe
MORECS (1971-2005)	-4.0	0.5	6.6	0.9	3.6	2.2	-1.9	-12.3	-14.8	-12.1	-8.1	-9.9	-7.8	0.57
Performance Band	1	1	1	1	1	1	1	2	2	2	1	1	1	2
FAO (1962-1991)	4.6	11.3	12.1	13.6	13.0	12.7	-0.1	-9.1	-11.9	0.3	6.7	-0.8	-1.6	0.49
	Q90	Q75	Q50	Q25	Q5	RP2			RP5	RP10	RP20			
MORECS (1971-2005)	-19.4	-7.1	-17.6	-7.0	2.8	-8.6			-10.4	-10.3	-9.5			
Performance Band	1	1	2	1	1									
FAO (1962-1991)	-15.9	-0.3	-9.1	3.3	12.0	-1.5			-3.9	-5.6	-7.0			

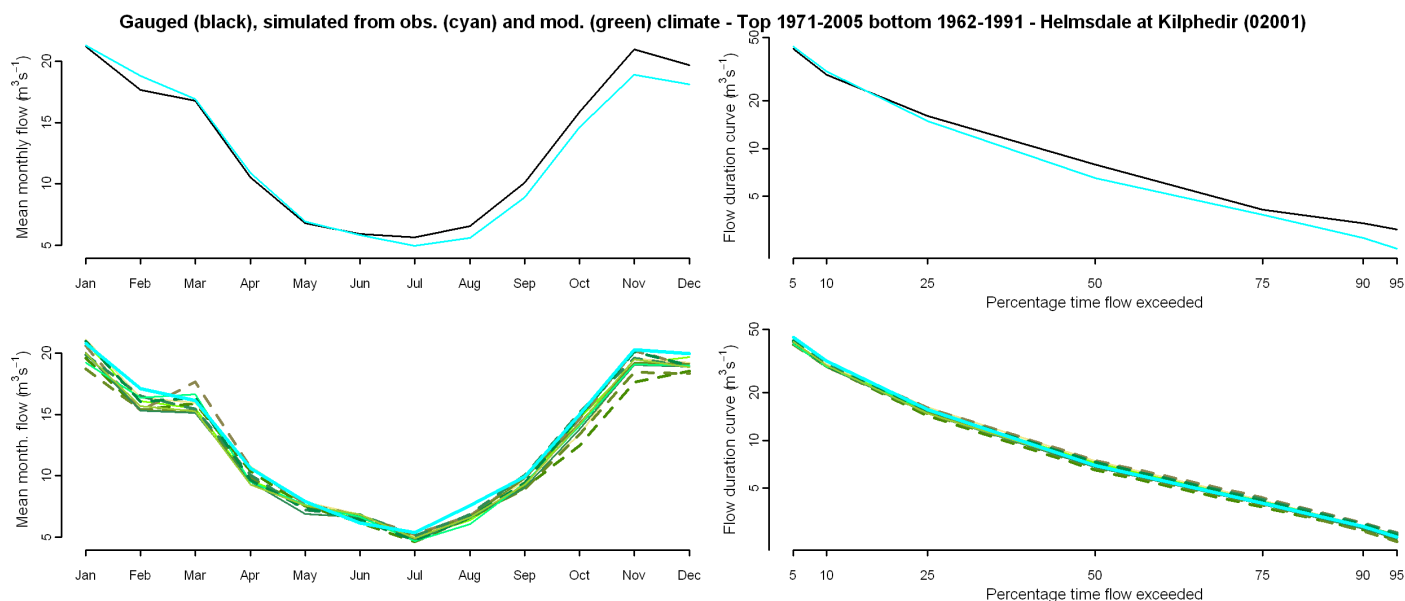
Gauged (black) and simulated (cyan) flows from observed climate - Helmsdale at Kilphedir (02001)



Gauged (black) and simulated (cyan) flows from observed climate - Helmsdale at Kilphedir (02001)



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



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

	afgcx	afixa	afixc	afixh	afixi	afixj	afixk	afixl	afixm	afixo	afixq
Annual	-3	-6	-2	0	-5	-7	-6	-2	-4	-3	-3
January	0	-4	3	-2	-3	-8	-5	-4	-9	1	-2
April	-7	2	1	3	-11	-9	-11	-4	-12	-7	-11
July	-5	-11	-2	3	-11	-6	-10	-5	-11	-9	-7
October	-2	-10	-9	5	-4	-10	-2	1	-3	1	-3
Q90	0	-4	-1	5	-2	-8	-4	4	0	1	0
Q75	2	-4	3	9	0	-3	-2	5	2	2	2
Q50	4	-4	6	8	-1	-4	-2	3	0	4	2
Q25	-2	-7	3	2	-5	-7	-6	-2	-3	-2	-5
Q5	-8	-6	-8	-4	-10	-11	-9	-5	-9	-7	-7
RP2	-5	-5	-7	-2	-3	3	-7	-10	-6	-3	2
RP10	-13	-11	-16	-18	-6	1	1	-19	-10	-13	4

Climate change graphs for 2050s

