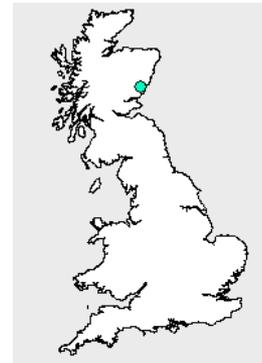


## General Information

River Name	South Esk	Catchment Area (km <sup>2</sup> )	488
Station Name	Brechin	SAAR (mm) 61-90	1090
Station Number	13008	Mean Annual Rain (mm) 62-91	1118
Grid Reference	NO600596	Mean Annual PE (mm) 62-91	476
EA Region	SEPA-NE	Observed flow record	1983 to 2005



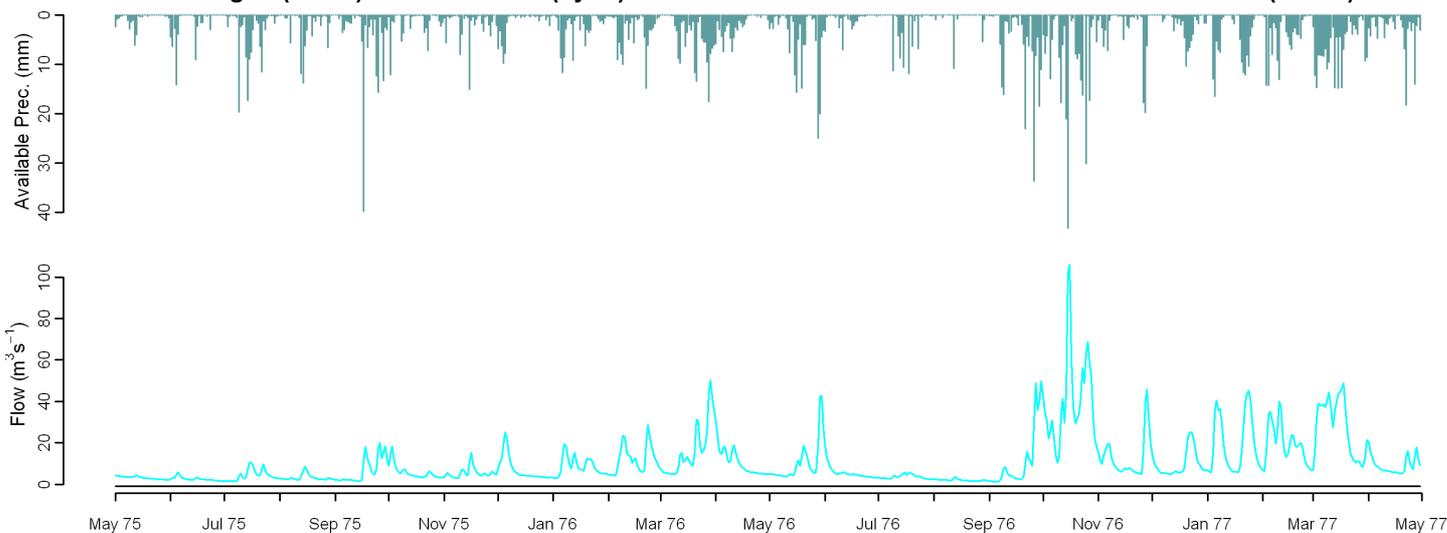
## Observed Data

## Comparison of gauged and simulated flow

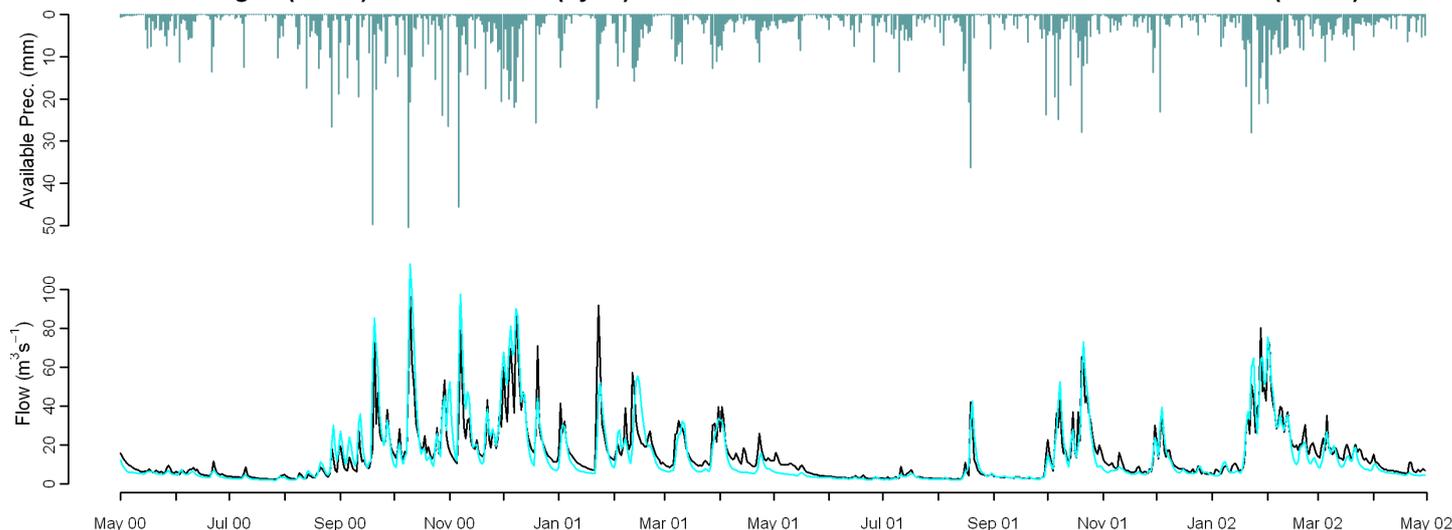
## Model used: CERF

	Mean Annual	J	F	M	A	M	J	J	A	S	O	N	D	Nash Sutcliffe
MORECS (1971-2005)	-4.0	-6.1	-5.9	-13.5	-9.3	-15.5	-12.5	-6.7	2.8	5.1	6.5	3.5	1.5	0.76
Performance Band	1	1	1	1	1	2	2	1	1	2	1	1	1	1
MORECS (1962-1991)	-0.9	-1.6	6.0	-7.7	-13.0	-12.7	-10.0	-7.1	1.7	-3.2	11.0	8.1	5.9	0.72
	Q90	Q75	Q50	Q25	Q5			RP2	RP5	RP10	RP20			
MORECS (1971-2005)	-8.6	-12.2	-22.7	-8.6	11.5									
Performance Band	1	1	1	1	1									
MORECS (1962-1991)	-1.0	-10.8	-20.6	-4.2	13.9									

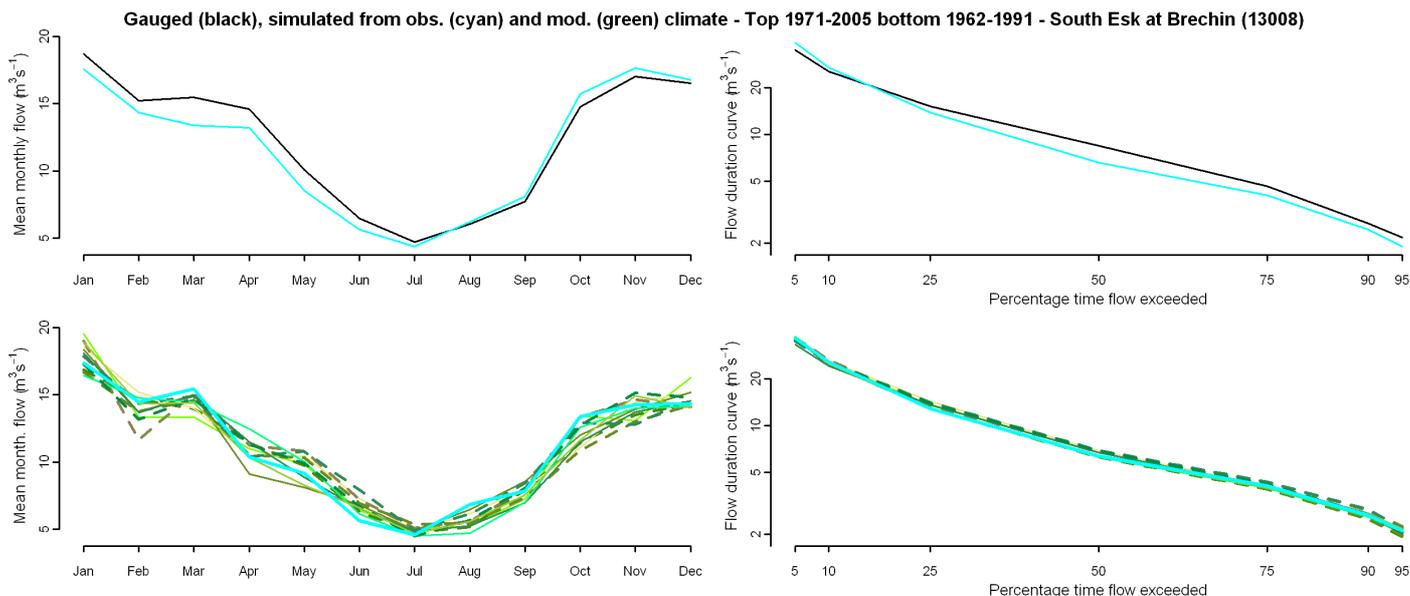
Gauged (black) and simulated (cyan) flows from observed climate - South Esk at Brechin (13008)



Gauged (black) and simulated (cyan) flows from observed climate - South Esk at Brechin (13008)



## 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	2	-1	4	6	-2	-2	-1	3	-1	1	-1
January	16	-4	9	9	5	1	3	1	-8	1	13
April	5	9	2	13	-11	2	11	4	25	12	-3
July	11	10	11	15	6	0	8	8	-1	-5	1
October	2	-13	-18	4	-12	-13	-8	-9	-1	-4	-6
Q90	3	-4	-2	9	-3	-6	-4	6	-4	-3	0
Q75	2	-3	1	9	-2	-6	-2	5	-4	1	-3
Q50	5	-1	8	8	-2	-1	6	9	-2	7	-3
Q25	5	0	11	8	-3	1	7	10	0	8	-1
Q5	-1	-2	-2	2	-2	-2	-6	-3	2	-4	0
RP2	2	7	-5	-1	8	3	3	1	4	-1	9
RP10	-3	-10	-14	-9	4	-14	10	-11	-3	-8	0

## Climate change graphs for 2050s

