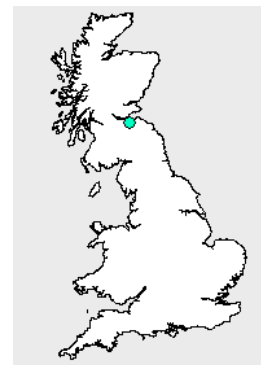


## General Information

River Name	North Esk	Catchment Area (km2)	137
Station Name	Dalkeith Palace	SAAR (mm) 61-90	908
Station Number	19011	Mean Annual Rain (mm) 62-91	920
Grid Reference	NT333678	Mean Annual PE (mm) 62-91	505
EA Region	SEPA-SE	Observed flow record	1963 to 2005



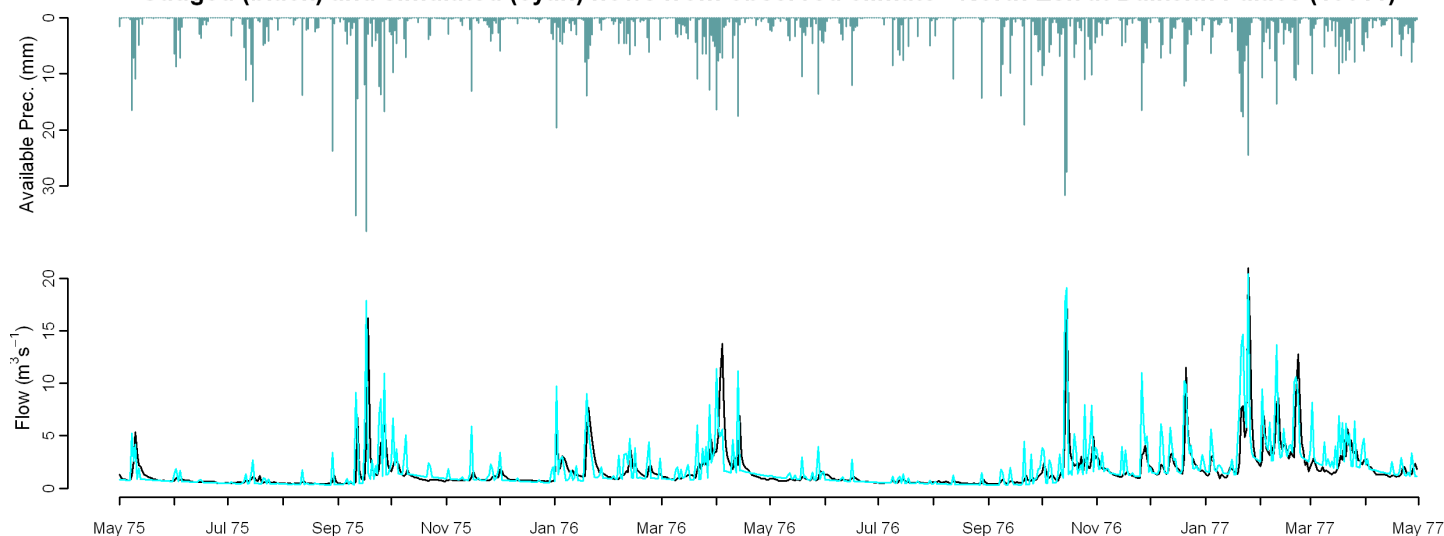
## Observed Data

## Comparison of gauged and simulated flow

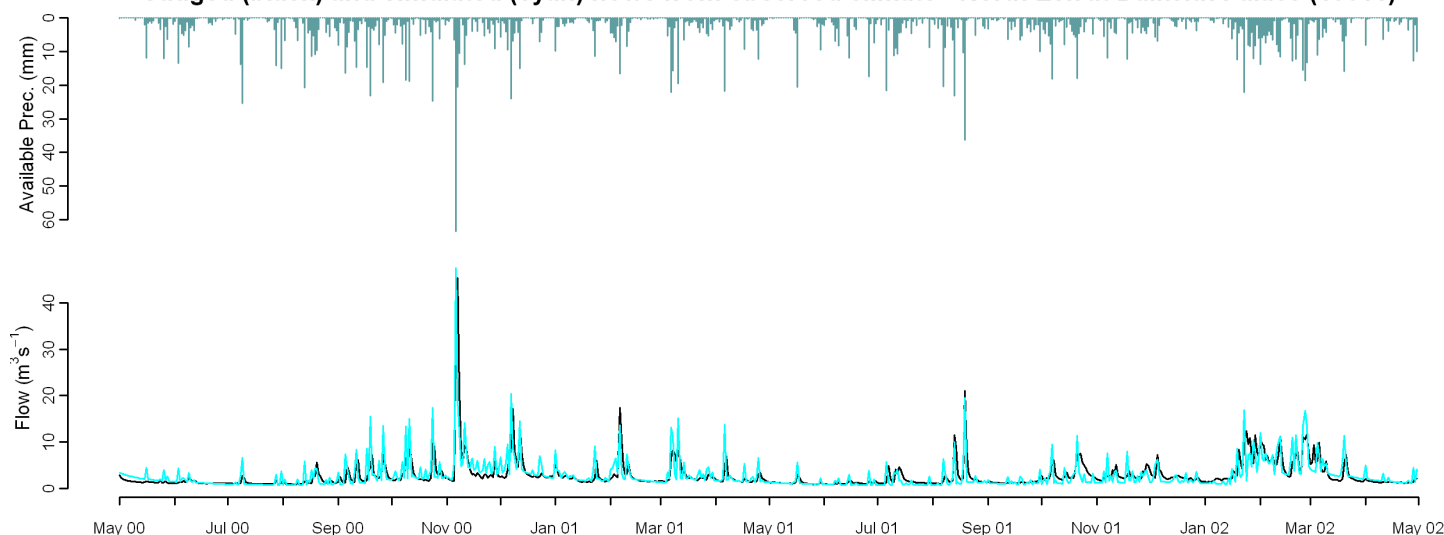
## Model used: PDM

	Mean Annual	J	F	M	A	M	J	J	A	S	O	N	D	Nash Sutcliffe
MORECS (1971-2005)	1.8	4.5	10.2	11.3	-2.0	-3.5	-6.1	-6.2	-8.5	-0.3	-7.4	5.5	5.7	0.45
Performance Band	1	1	2	2	1	1	1	1	1	1	1	1	1	2
FAO (1962-1991)	7.5	11.0	10.8	6.0	4.4	0.8	1.8	-3.1	7.3	6.7	6.5	5.3	15.7	0.31
	Q90	Q75	Q50	Q25	Q5				RP2	RP5	RP10	RP20		
MORECS (1971-2005)	-20.0	-11.8	-1.6	5.1	13.0				-7.8	-16.7	-21.7	-25.9		
Performance Band	1	1	1	1	1									
FAO (1962-1991)	-14.3	-2.7	7.7	9.2	17.3				-12.0	-15.6	-16.0	-15.6		

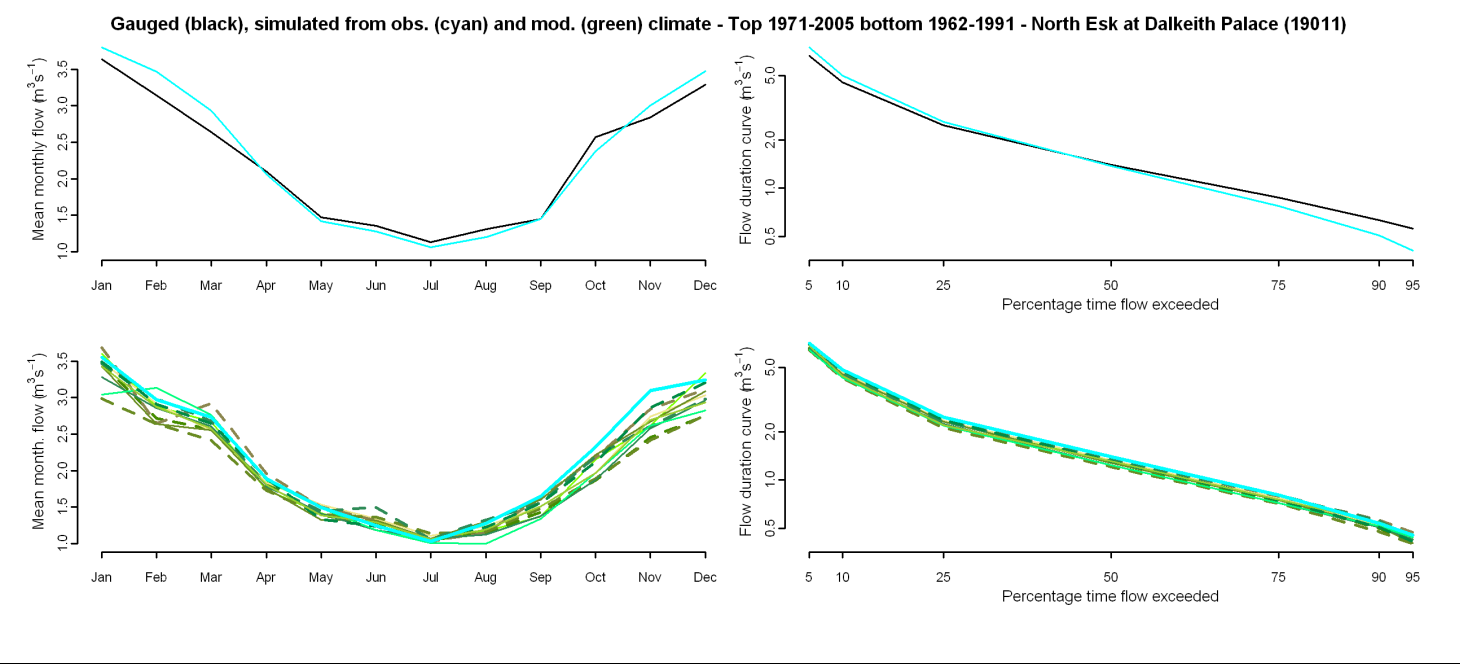
Gauged (black) and simulated (cyan) flows from observed climate - North Esk at Dalkeith Palace (19011)



Gauged (black) and simulated (cyan) flows from observed climate - North Esk at Dalkeith Palace (19011)



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	-6	-9	-5	-1	-7	-11	-9	-4	-9	-4	-8
January	2	-3	1	5	-2	-11	-9	-2	-13	-2	-4
April	-7	-9	-1	6	-8	-8	-5	-2	-4	0	-7
July	1	4	5	-1	2	-2	2	-1	-2	0	1
October	-9	-20	-17	-4	-9	-20	-14	-13	-20	-9	-8
Q90	-1	-5	-5	4	-7	-11	-7	0	-5	-6	1
Q75	-5	-7	-3	-1	-9	-11	-11	-1	-11	-7	-7
Q50	-9	-12	-5	-2	-10	-14	-11	-5	-12	-7	-7
Q25	-6	-12	-5	0	-7	-13	-9	-6	-12	-4	-12
Q5	-3	-7	-4	0	-4	-9	-8	-2	-9	-1	-7
RP2	-5	-16	-14	-1	-5	-10	-10	-6	-10	-5	-9
RP10	-16	-21	-25	-17	-13	-17	-22	-16	-19	-7	-14

Climate change graphs for 2050s

