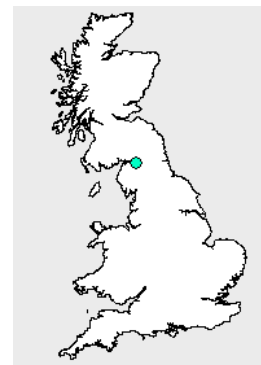


## General Information

River Name	Irthing	Catchment Area (km2)	335
Station Name	Greenholme	SAAR (mm) 61-90	1073
Station Number	76008	Mean Annual Rain (mm) 62-91	1089
Grid Reference	NY486581	Mean Annual PE (mm) 62-91	484
EA Region	EA-NW	Observed flow record	1967 to 2005



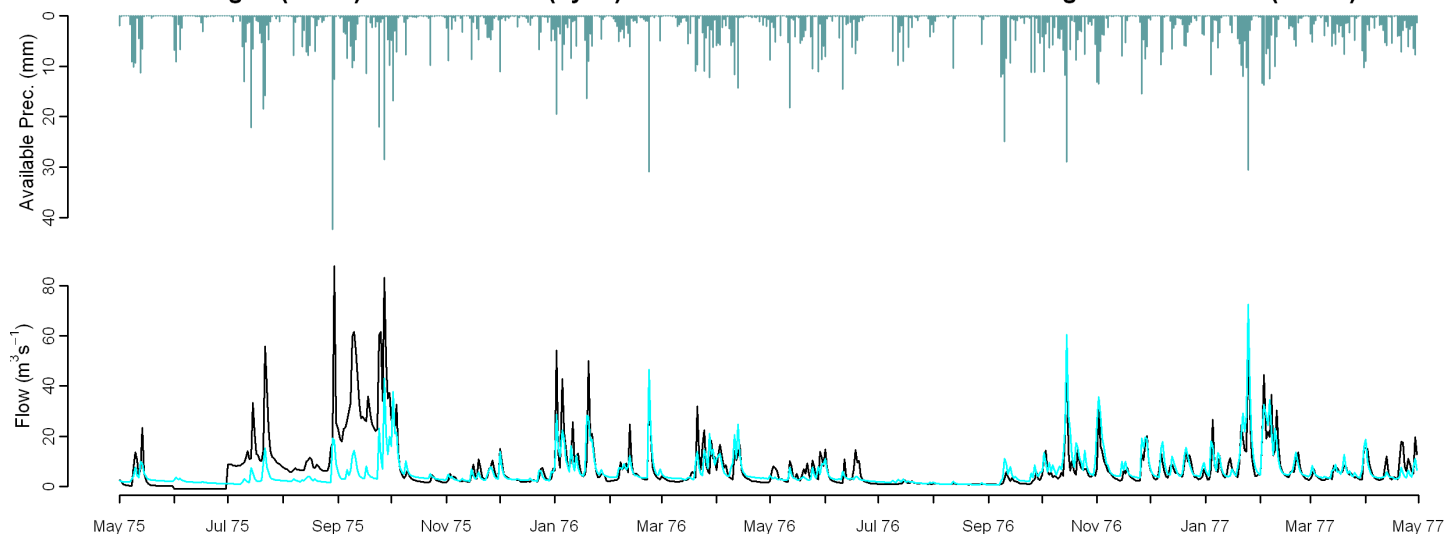
## Observed Data

## Comparison of gauged and simulated flow

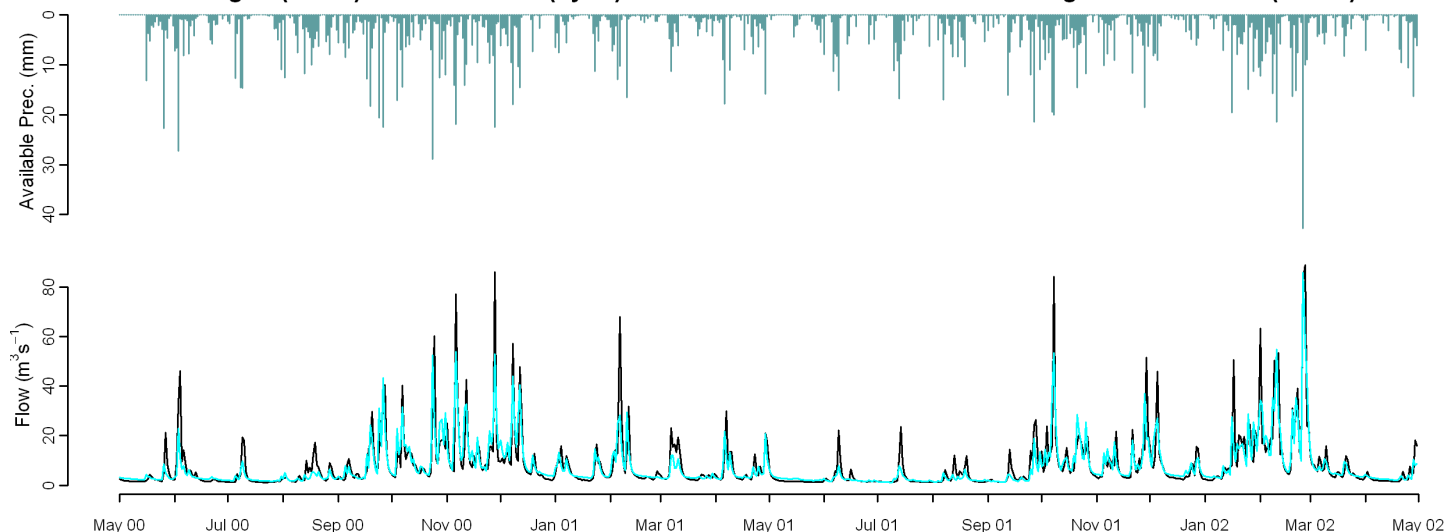
## Model used: CERF

	Mean Annual	J	F	M	A	M	J	J	A	S	O	N	D	Nash Sutcliffe
MORECS (1971-2005)	-5.2	-2.4	-1.2	-6.8	-9.3	-19.3	-22.1	-21.3	-18.5	-17.4	-0.6	1.9	1.0	0.71
Performance Band	1	1	1	1	1	2	2	2	2	2	1	1	1	1
MORECS (1962-1991)	-4.4	-0.8	0.4	-6.0	-4.8	-17.8	-24.0	-24.1	-20.1	-19.9	0.0	3.8	2.5	0.70
	Q90	Q75	Q50	Q25	Q5	RP2			RP5	RP10	RP20			
MORECS (1971-2005)	25.7	30.2	4.2	-10.0	-11.3									
Performance Band	1	1	1	1	2									
MORECS (1962-1991)	27.5	30.1	5.3	-9.5	-10.8									

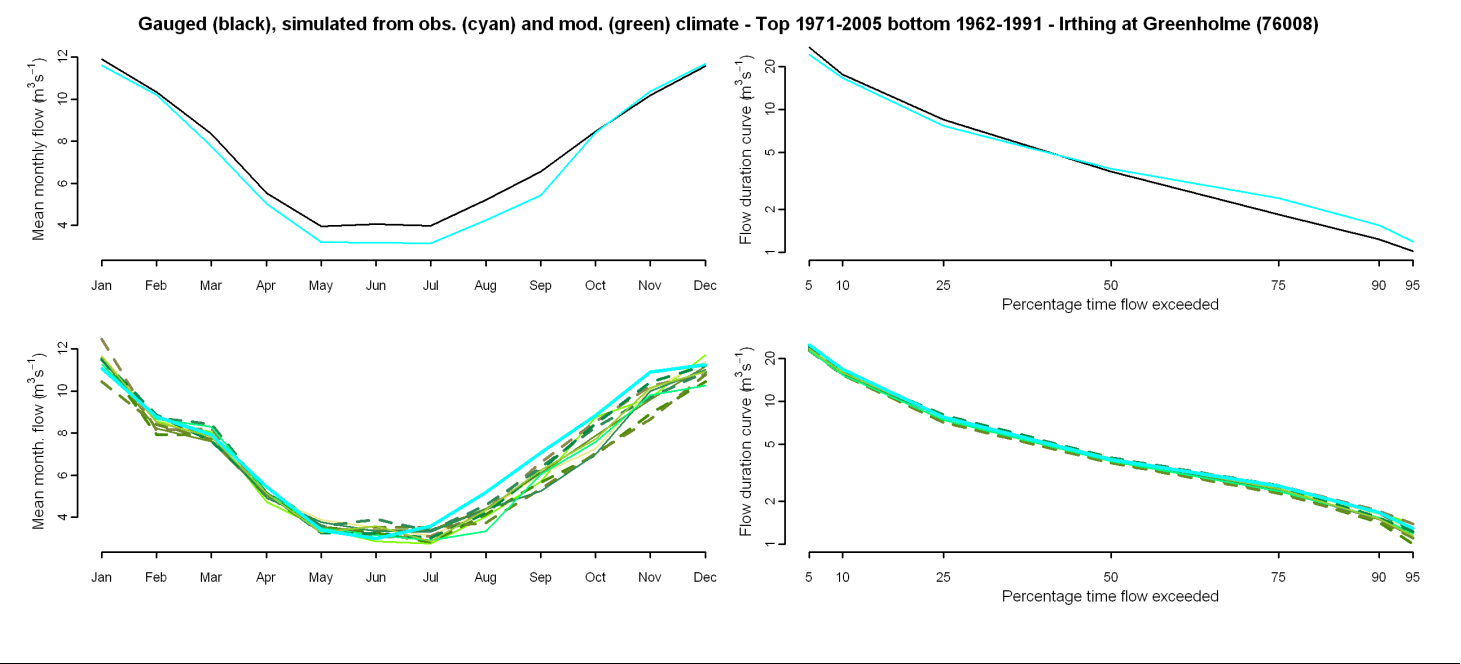
Gauged (black) and simulated (cyan) flows from observed climate - Irthing at Greenholme (76008)



Gauged (black) and simulated (cyan) flows from observed climate - Irthing at Greenholme (76008)



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	-4	-7	-3	1	-4	-7	-7	0	-6	-3	-4
January	5	3	5	10	5	-1	-1	6	2	1	9
April	-12	-10	-7	0	-8	-7	-7	-2	-9	-3	-7
July	-21	-13	-14	-11	-5	-6	-10	-6	-20	-17	-19
October	0	-16	-20	-1	-10	-20	-9	-8	-13	-4	-12
Q90	2	-14	-4	3	-15	-14	-13	-2	-10	-12	-10
Q75	-4	-7	-3	3	-8	-12	-9	1	-10	-4	-5
Q50	0	-5	0	4	-1	-5	0	3	-3	2	1
Q25	0	-8	0	2	-2	-8	-1	4	-5	2	0
Q5	-9	-8	-8	-1	-7	-8	-8	1	-9	-5	-7
RP2	-8	-4	-3	0	1	-9	-7	-7	2	-3	0
RP10	-7	-4	-3	-5	-1	-19	-10	-11	-10	-5	5

Climate change graphs for 2050s

