

## General Information

River Name	Irthing	Catchment Area (km <sup>2</sup> )	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



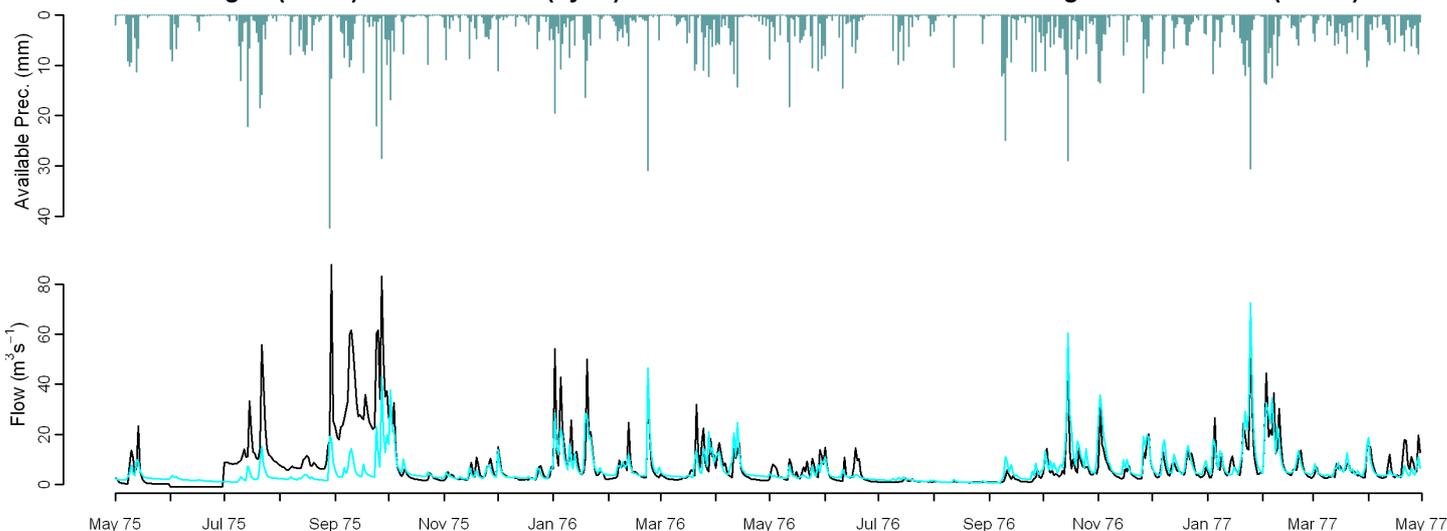
## Observed Data

## Comparison of gauged and simulated flow

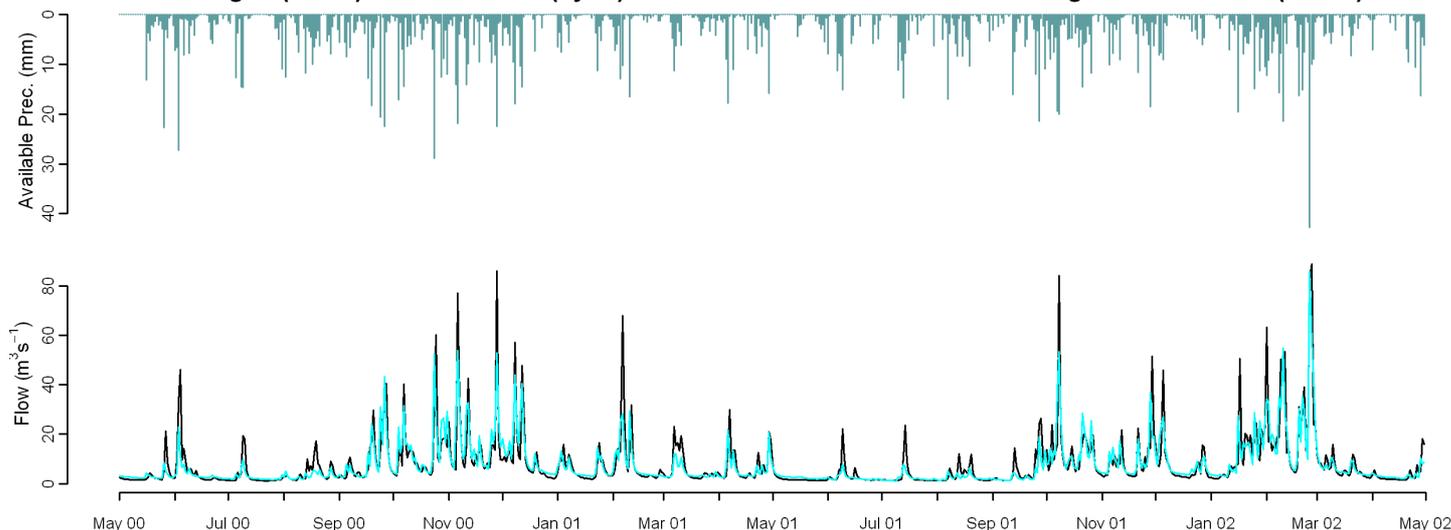
## Model used: CERF

	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)

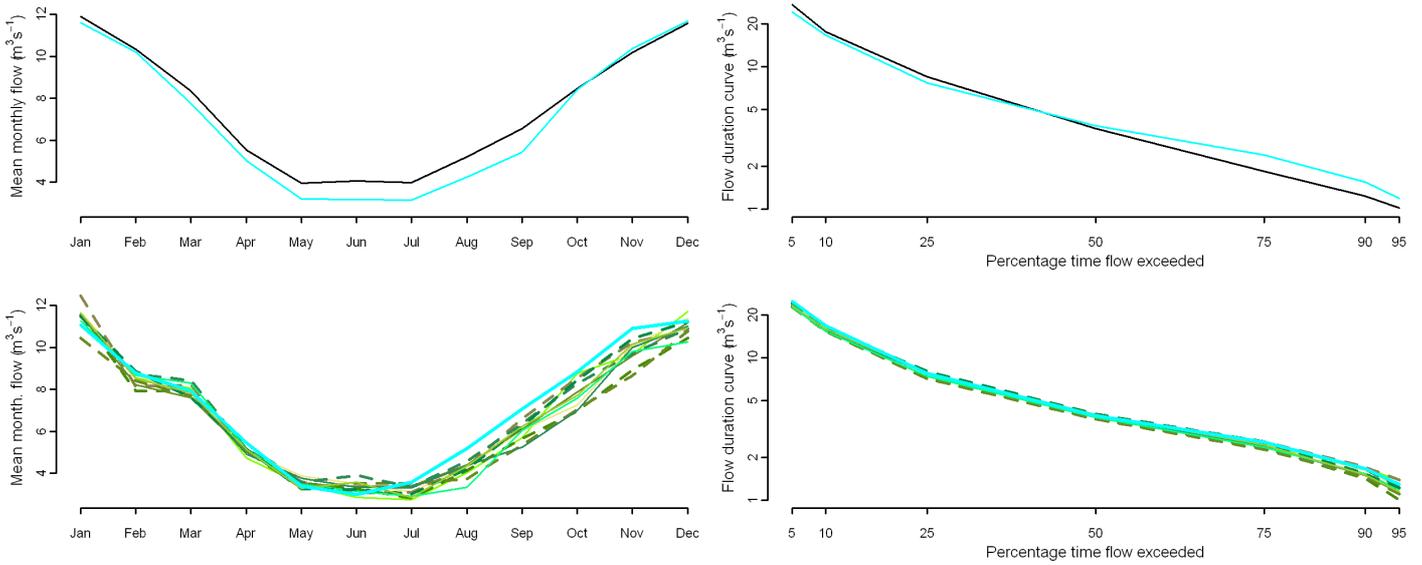


Gauged (black) and simulated (cyan) flows from observed climate - Irthing at Greenholme (76008)



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

Gauged (black), simulated from obs. (cyan) and mod. (green) climate - Top 1971-2005 bottom 1962-1991 - Irthing at Greenholme (76008)



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

Change between future (2040-2069) and control (1961-1990) simulated flow (green) - Irthing at Greenholme (76008)

