

## General Information

River Name	Ecclesbourne	Catchment Area (km <sup>2</sup> )	50
Station Name	Duffield	SAAR (mm) 61-90	853
Station Number	28055	Mean Annual Rain (mm) 62-91	859
Grid Reference	SK320447	Mean Annual PE (mm) 62-91	573
EA Region	EA-M	Observed flow record	1971 to 2005



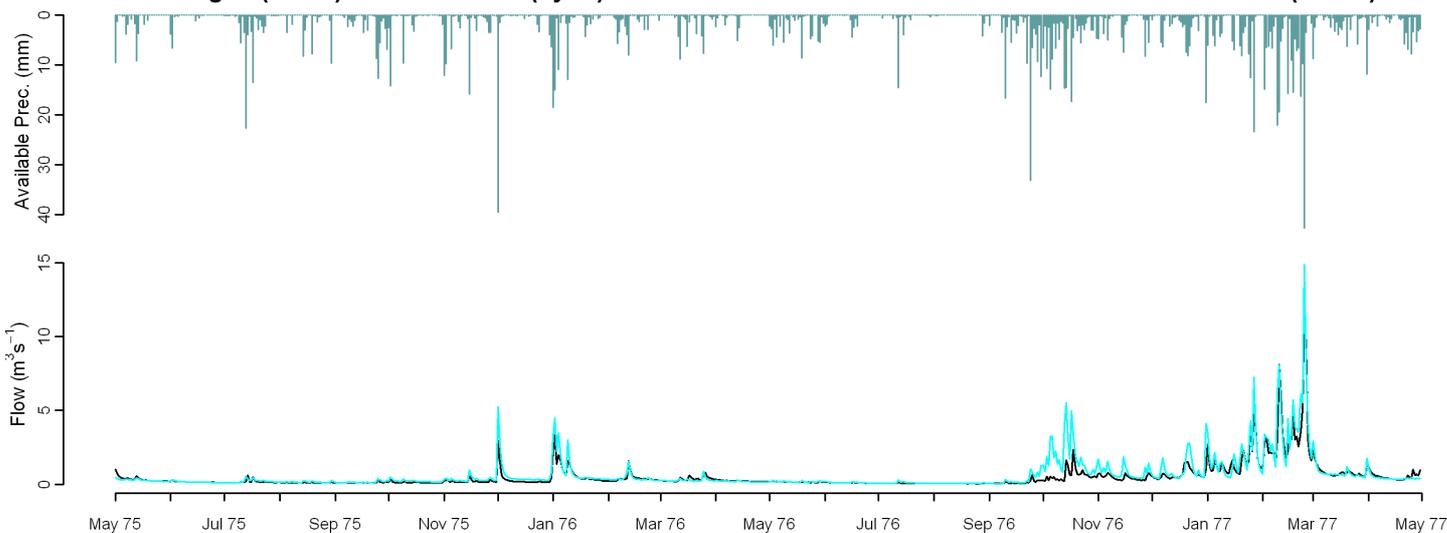
## Observed Data

## Comparison of gauged and simulated flow

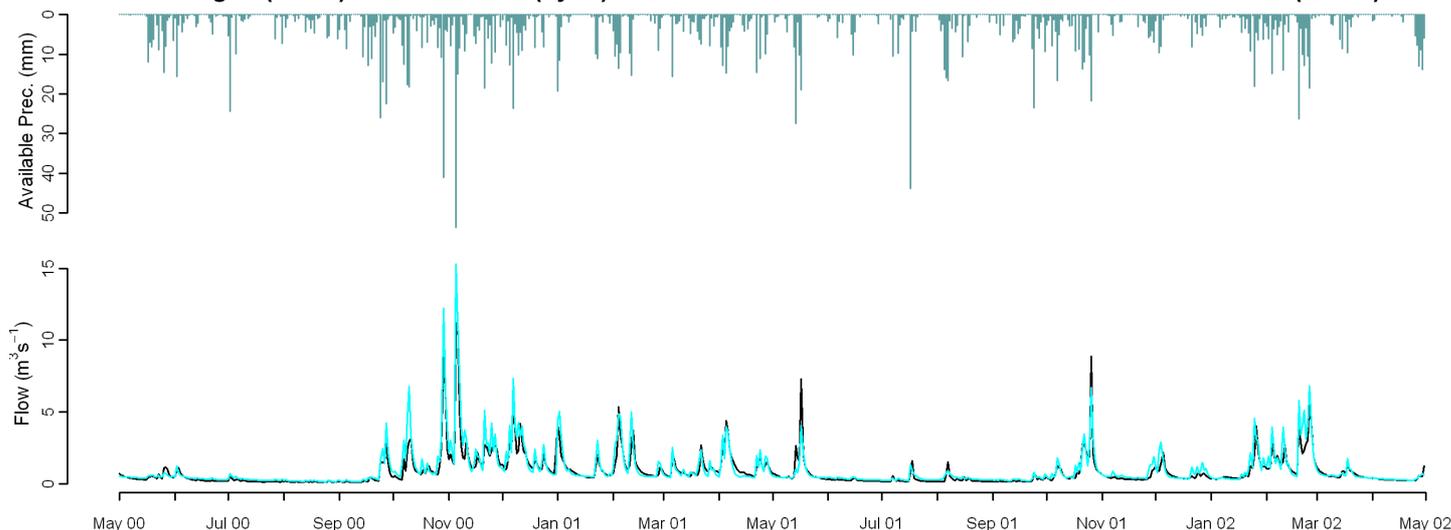
## Model used: CERF

	Mean Annual	J	F	M	A	M	J	J	A	S	O	N	D	Nash Sutcliffe
MORECS (1971-2005)	14.4	12.5	10.5	-5.4	-11.8	-10.7	11.7	36.8	37.6	44.9	36.0	29.3	21.1	0.71
Performance Band	2	2	1	1	1	1	2	3	2	3	1	2	2	1
MORECS (1962-1991)	8.3	8.6	7.9	-6.5	-15.9	-21.7	10.0	21.2	25.2	30.1	41.2	25.5	17.0	0.72
	Q90	Q75	Q50	Q25	Q5	RP2		RP5		RP10		RP20		
MORECS (1971-2005)	46.7	48.4	15.3	-7.6	25.3									
Performance Band	1	1	1	2	2									
MORECS (1962-1991)	37.1	44.0	10.4	-9.2	26.3									

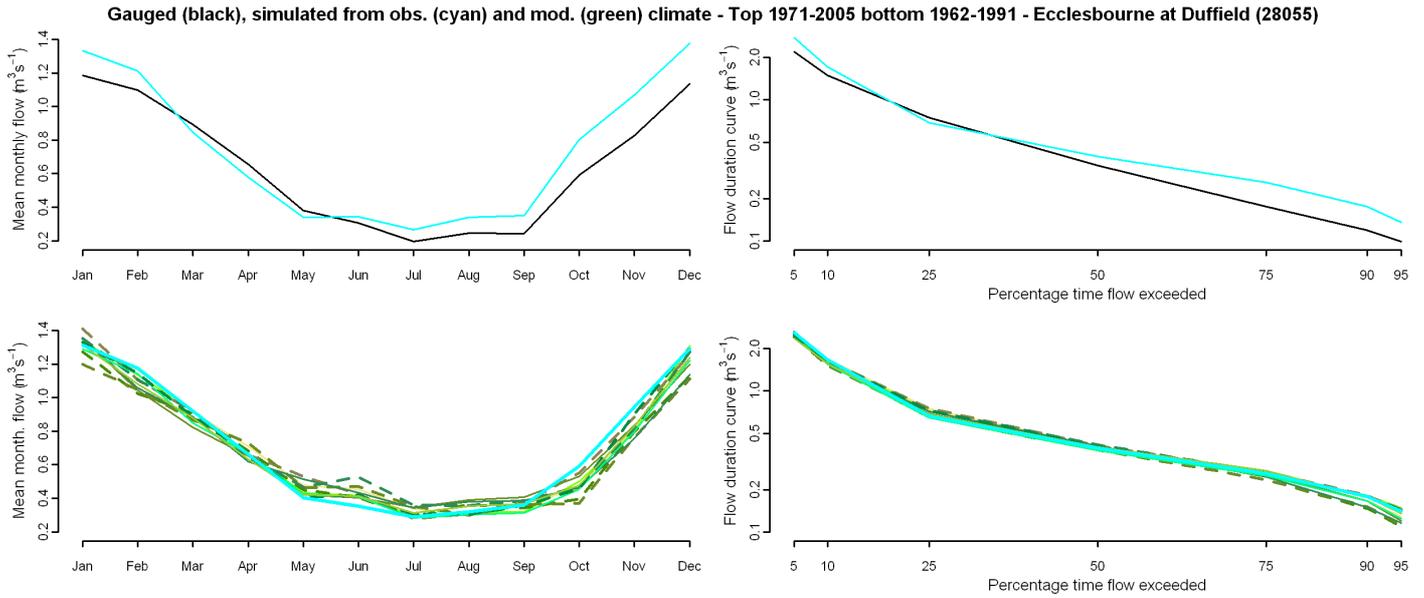
Gauged (black) and simulated (cyan) flows from observed climate - Ecclesbourne at Duffield (28055)



Gauged (black) and simulated (cyan) flows from observed climate - Ecclesbourne at Duffield (28055)



## 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	0	-5	1	2	-2	-5	-4	2	-6	-2	-4
January	6	-7	4	5	2	-6	2	4	-3	-1	-1
April	2	-5	12	4	-3	11	-6	-1	3	1	-2
July	4	10	24	-1	17	22	20	25	-1	4	8
October	-14	-31	-22	0	-13	-34	-18	-16	-24	-21	-19
Q90	3	-18	-5	2	-12	-16	-17	0	-7	-2	0
Q75	1	-9	-1	3	-3	-9	-7	4	-3	0	5
Q50	1	-3	3	4	1	-3	3	6	-4	1	1
Q25	8	-2	14	15	2	1	8	13	-2	9	3
Q5	-4	-8	0	-2	-6	-6	-8	3	-7	-6	-9
RP2	-3	-2	-6	6	12	3	8	10	8	-1	-4
RP10	-5	10	-5	10	17	3	7	3	30	1	6

## Climate change graphs for 2050s

