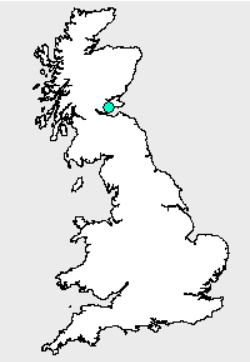
Catchment Fact Sheet 17016 Future Flows and Groundwater Levels

General Information

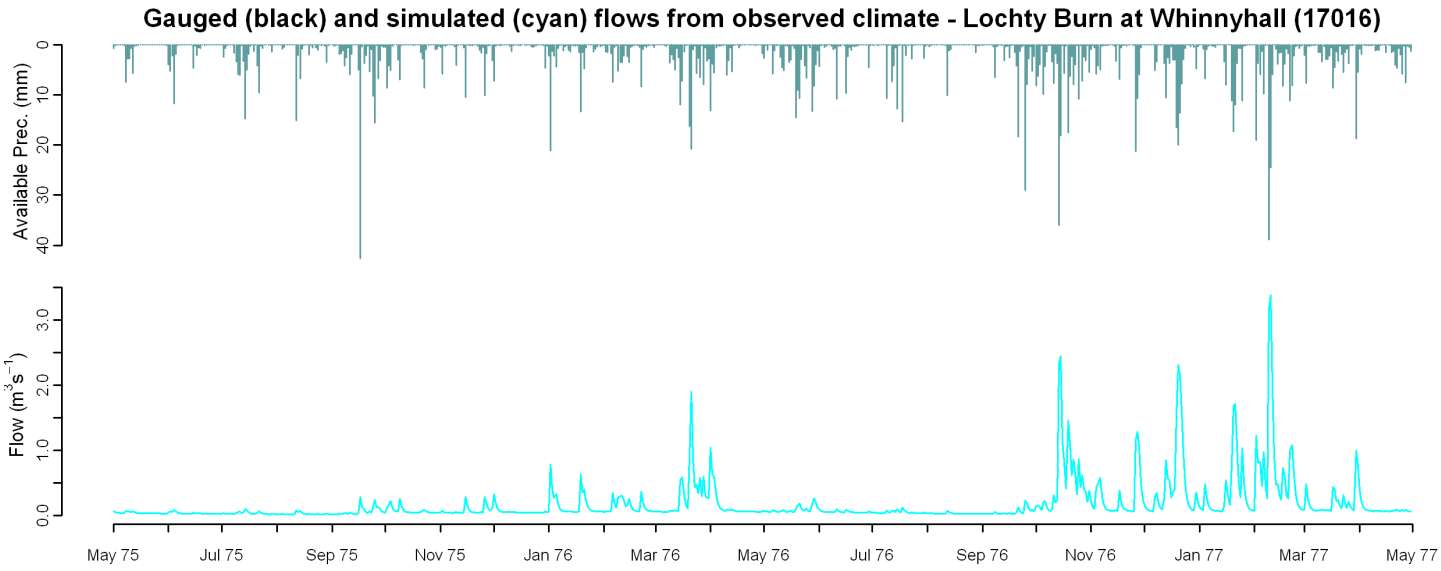
River Name	Lochty Burn	Catchment Area (km2)	14
Station Name	Whinnyhall	SAAR (mm) 61-90	863
Station Number	17016	Mean Annual Rain (mm) 62-91	864
Grid Reference	NT220985	Mean Annual PE (mm) 62-91	526
EA Region	SEPA-SE	Observed flow record	1986 to 2003

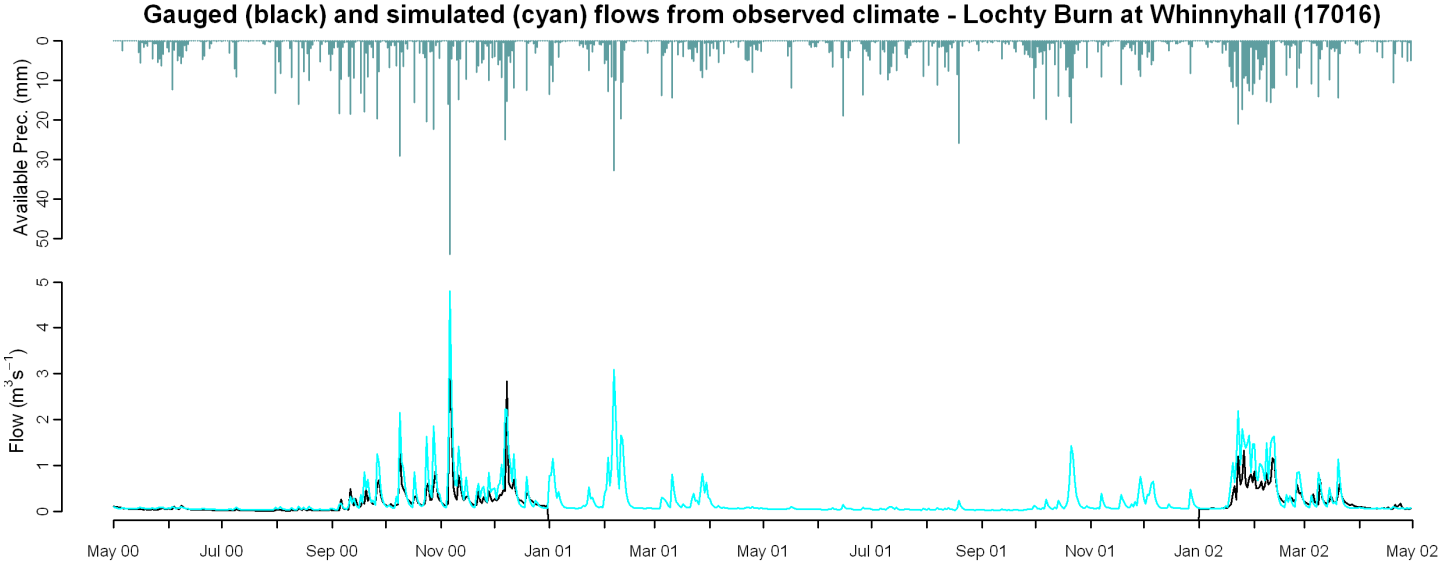


Observed Data Comparison of gauged and simulated flow Model used: CERF

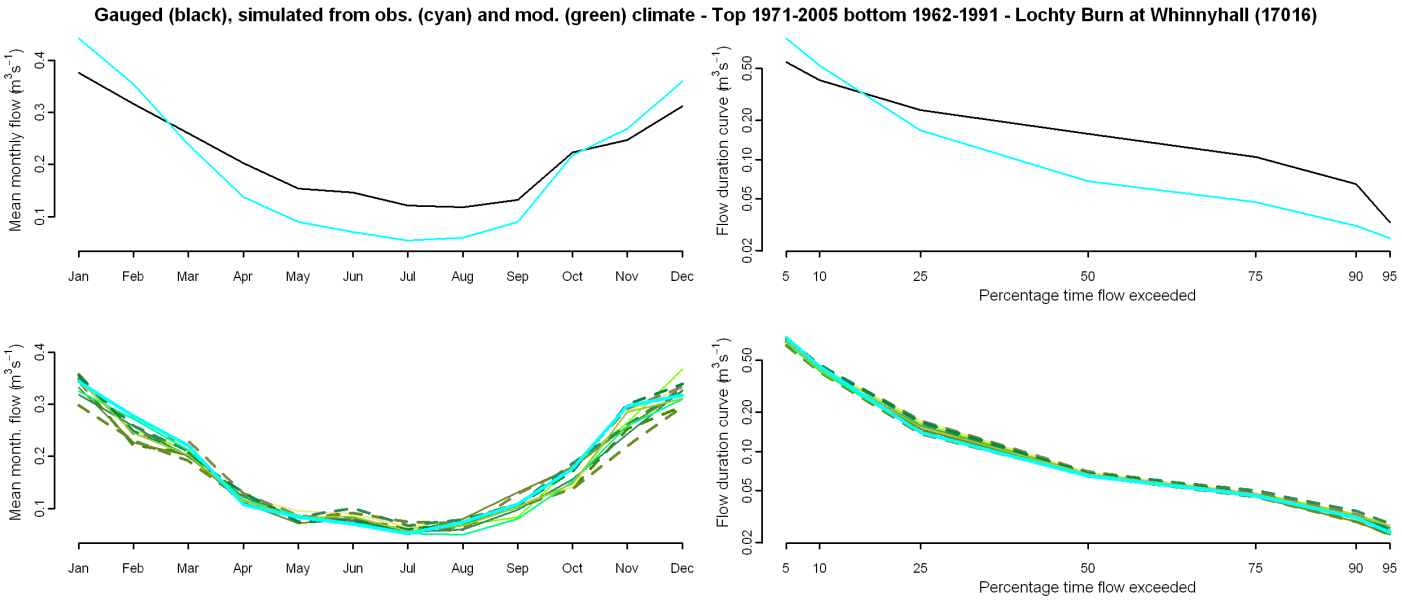
	Mean Annual	J	F	M	A	M	J	J	A	S	O	N	D	Nash Sutcliffe
MORECS (1971-2005)	-7.6	17.3	12.2	-8.5	-31.9	-41.8	-51.2	-55.8	-48.8	-31.9	-2.0	8.8	15.6	0.37
Performance Band	2	2	1	1	3	3	3	3	3	3	2	1	2	3
MORECS (1962-1991)	-22.8	9.5	3.4	-12.9	-47.2	-46.3	-54.8	-59.3	-56.9	-63.8	-25.8	-17.9	6.6	0.19

	Q90	Q75	Q50	Q25	Q5	RP2	RP5	RP10	RP20
MORECS (1971-2005)	-51.6	-55.4	-56.7	-30.0	51.8				
Performance Band	1	1	2	3	3				
MORECS (1962-1991)	-64.4	-63.3	-61.1	-36.8	35.3				





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	1	-3	1	5	-5	-7	-5	3	-5	2	-3
January	2	-4	0	2	-4	-7	-9	4	-3	2	2
April	1	15	17	28	4	10	17	11	12	20	7
July	22	30	26	10	4	16	9	28	1	16	11
October	2	-19	-21	7	-3	-22	-1	-2	-17	-3	-12
Q90	7	0	-1	9	-6	-6	0	13	0	-1	6
Q75	5	1	4	6	-4	-3	-1	10	-1	2	3
Q50	5	2	5	8	1	0	3	6	0	4	3
Q25	16	6	22	26	3	-3	14	22	3	19	10
Q5	-3	-8	-4	-1	-6	-12	-8	-1	-8	-3	-8
RP2	-8	-9	-9	-7	-3	-12	-8	1	-3	-3	-6
RP10	-5	-4	-5	-4	4	-7	-5	12	-1	-2	-2

Climate change graphs for 2050s