

Catchment Fact Sheet NY63/2

Future Flows and Groundwater Levels

General Information

Borehole Name	Skirwith	Grid Reference	NY 61303250
Borehole ID	NY63/2	Mean Annual Rainfall (mm)	825
Principal Aquifer	St Bees Sandstone	Period of observed level data	1979 - 2005
EA Region	North West		

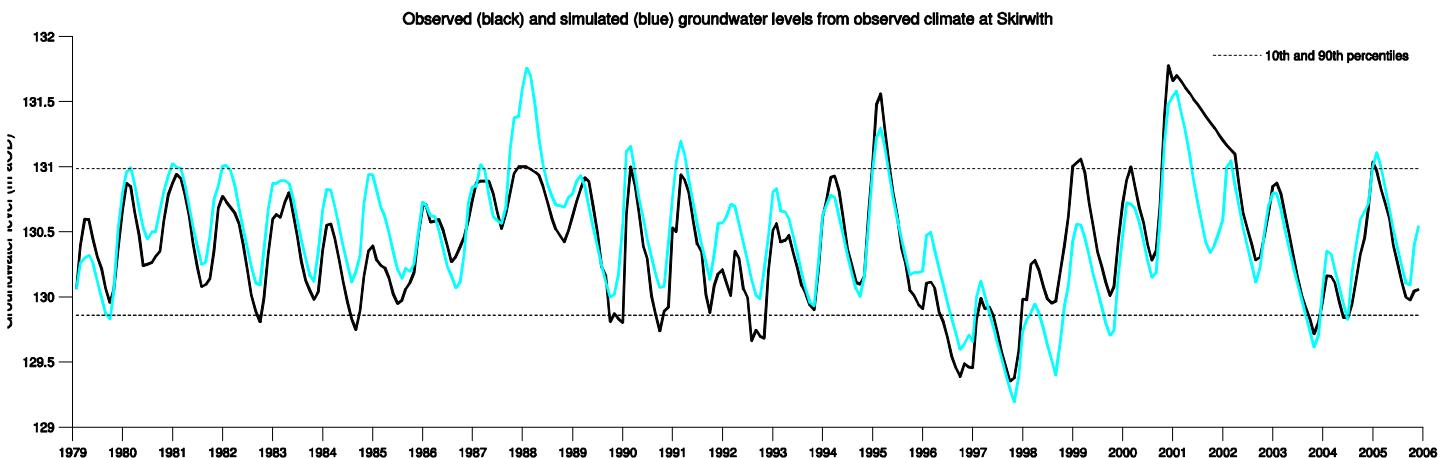


Observed Data

Comparison of observed and simulated levels (m)

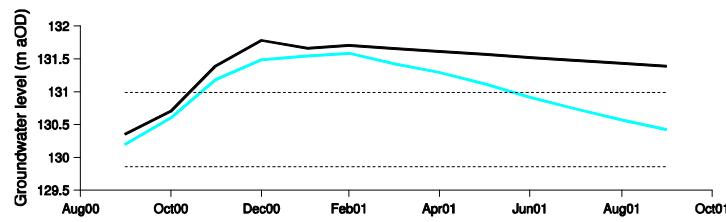
Model used: R-Groundwater

	Mean Annual	J	F	M	A	M	J	J	A	S	O	N	D	NSE	RMSE
1979 - 2005	0.05	0.11	0.13	0.09	0.04	0.00	0.01	0.00	0.03	0.01	0.05	0.08	0.11	0.63	0.28
Performance	1	1	1	1	1	1	1	1	1	1	1	1	1	2	
															%
1979 - 2005															5.69
Performance															1
L90 L75 L50 L25 L10															

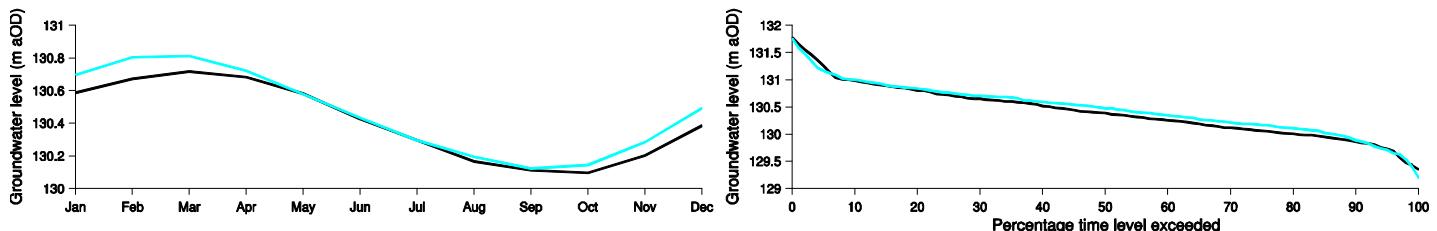


Comparison of observed and simulated levels (observed climate)

Selected observed (black) and simulated (blue) groundwater levels at Skirwith



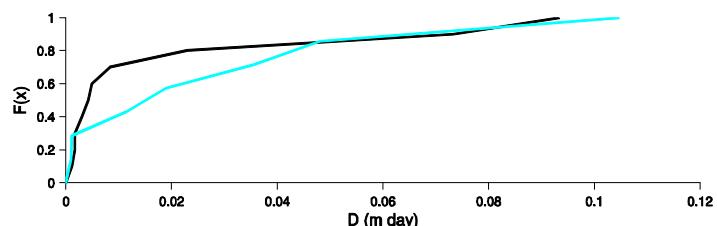
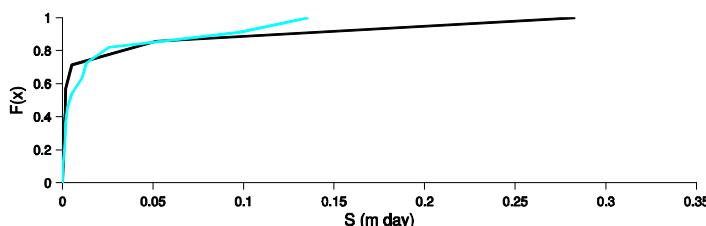
Statistics from observed (black) and simulated (blue) groundwater levels from observed climate at Skirwith



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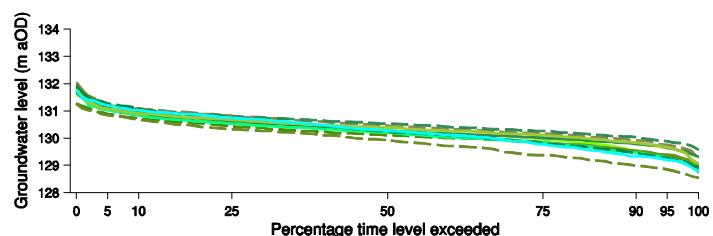
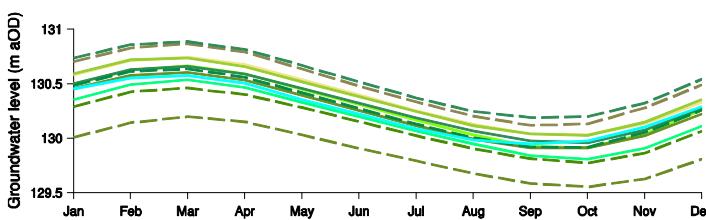
Future Flows and Groundwater Levels

Surplus (S) and Deficit (D) distributions from observed (black) and simulated (blue) groundwater levels from observed climate at Skirwith



Difference (m) between levels simulated from observed climate and Future Flows Climate

Comparison of groundwater levels simulated using observed climate (blue) and Future Flows Climate (green)



(m)	afgcx	afixa	afixc	afixh	afixi	afixj	afixk	afixl	afixm	afixo	afixq
Annual	0.04	-0.13	0.13	0.24	0.00	-0.38	0.06	0.28	-0.08	0.02	0.13
Jan	0.05	-0.16	0.13	0.25	0.00	-0.45	0.04	0.28	-0.10	0.03	0.14
Feb	0.07	-0.13	0.16	0.28	0.02	-0.41	0.08	0.30	-0.06	0.06	0.16
Mar	0.09	-0.11	0.17	0.29	0.03	-0.38	0.08	0.31	-0.04	0.06	0.16
Apr	0.09	-0.10	0.17	0.28	0.02	-0.36	0.08	0.31	-0.04	0.05	0.15
May	0.10	-0.07	0.18	0.28	0.04	-0.33	0.10	0.31	-0.02	0.06	0.16
Jun	0.09	-0.07	0.18	0.26	0.03	-0.31	0.10	0.30	-0.02	0.05	0.16
Jul	0.08	-0.06	0.16	0.24	0.03	-0.30	0.10	0.28	-0.02	0.04	0.16
Aug	0.05	-0.08	0.14	0.22	0.01	-0.30	0.09	0.26	-0.03	0.02	0.13
Sep	-0.02	-0.14	0.09	0.17	-0.03	-0.36	0.03	0.24	-0.11	-0.03	0.09
Oct	-0.06	-0.21	0.06	0.16	-0.07	-0.42	-0.02	0.22	-0.17	-0.06	0.05
Nov	-0.06	-0.24	0.03	0.18	-0.08	-0.48	-0.03	0.22	-0.20	-0.05	0.04
Dec	-0.03	-0.23	0.04	0.20	-0.07	-0.48	-0.02	0.25	-0.18	-0.03	0.07

Climate change graphs for 2050s

Change between future (2041–2070) and control (1961–1990) simulated levels at Skirwith

