

## General Information

|                |              |                             |              |
|----------------|--------------|-----------------------------|--------------|
| River Name     | Bedford Ouse | Catchment Area (km2)        | 2570         |
| Station Name   | Offord       | SAAR (mm) 61-90             | 610          |
| Station Number | 33026        | Mean Annual Rain (mm) 62-91 | 627          |
| Grid Reference | TL216669     | Mean Annual PE (mm) 62-91   | 601          |
| EA Region      | EA-A         | Observed flow record        | 1970 to 2005 |



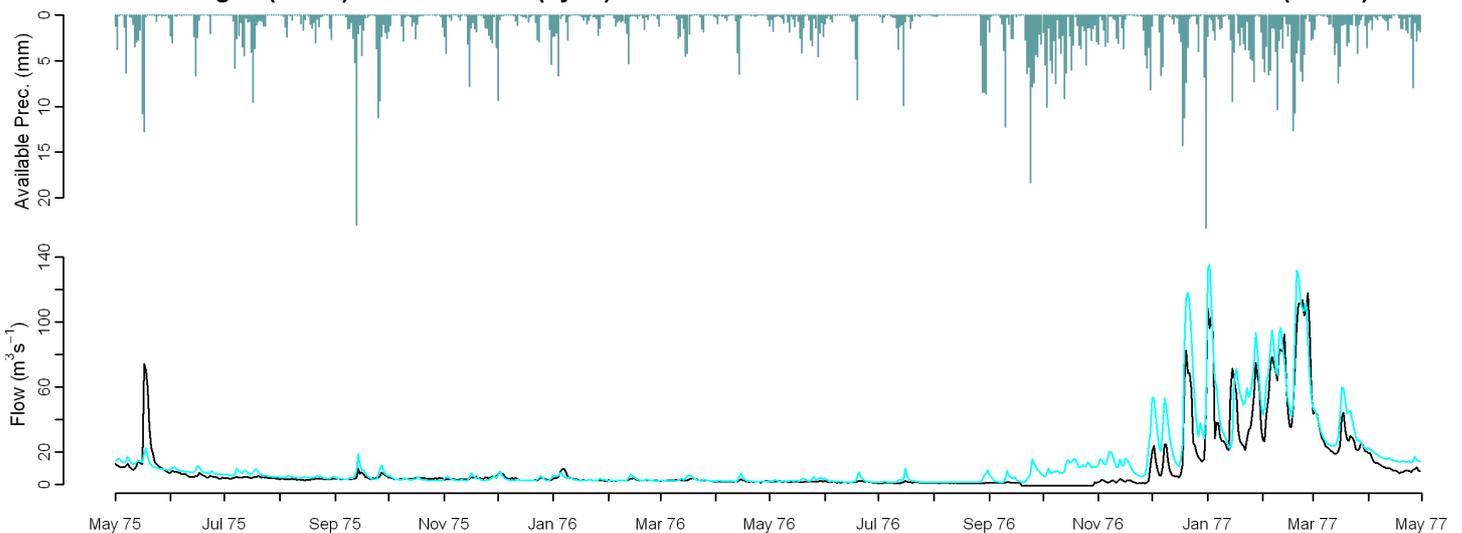
## Observed Data

## Comparison of gauged and simulated flow

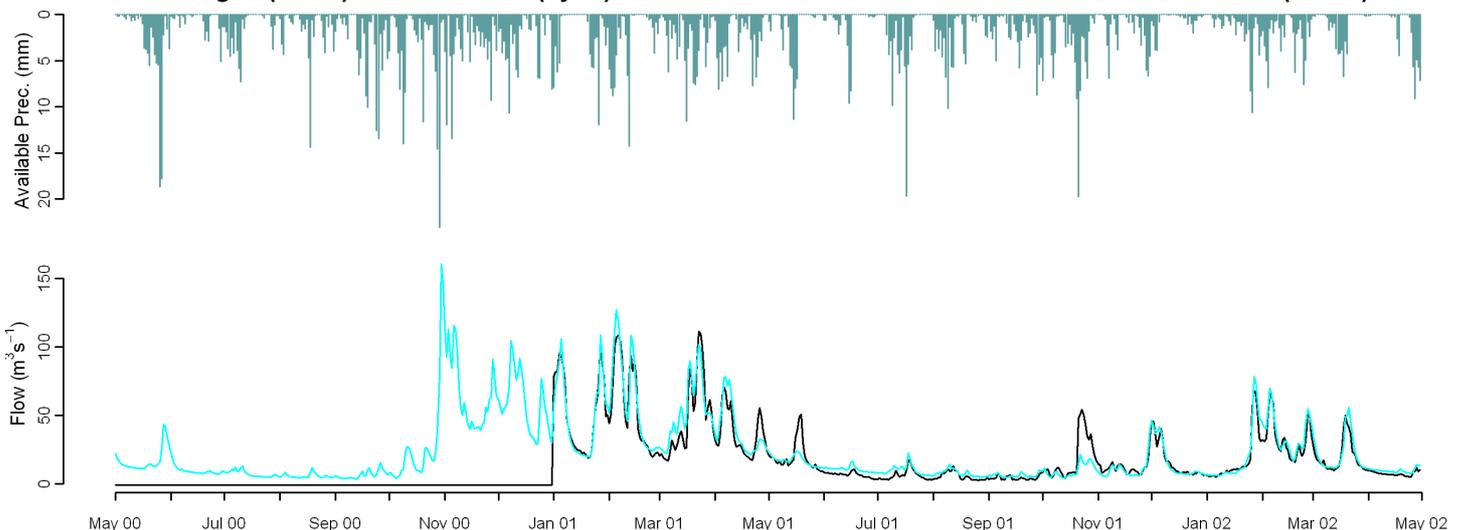
## Model used: CLASSIC

|                    | Mean Annual | J    | F    | M    | A   | M   | J    | J    | A    | S    | O    | N    | D    | Nash Sutcliffe |
|--------------------|-------------|------|------|------|-----|-----|------|------|------|------|------|------|------|----------------|
| MORECS (1971-2005) | 11.1        | 11.2 | 13.2 | 11.5 | 3.0 | 6.3 | 10.5 | 40.5 | 30.5 | 15.6 | -2.7 | 18.6 | 16.0 | 0.89           |
| Performance Band   | 2           | 2    | 2    | 2    | 1   | 1   | 2    | 3    | 3    | 2    | 1    | 2    | 2    | 1              |
| FAO (1962-1991)    | 10.2        | 15.4 | 10.7 | 10.6 | 3.7 | 6.5 | 10.7 | 39.0 | 26.7 | 9.3  | -9.5 | 17.8 | 15.3 | 0.88           |
|                    | Q90         | Q75  | Q50  | Q25  | Q5  | RP2 | RP5  | RP10 | RP20 |      |      |      |      |                |
| MORECS (1971-2005) | 24.9        | 43.4 | 30.1 | 13.7 | 6.9 | 6.3 | 9.9  | 15.1 | 21.7 |      |      |      |      |                |
| Performance Band   | 1           | 2    | 2    | 1    | 1   |     |      |      |      |      |      |      |      |                |
| FAO (1962-1991)    | 14.8        | 35.3 | 28.0 | 10.4 | 6.4 | 4.3 | 6.7  | 6.7  | 6.1  |      |      |      |      |                |

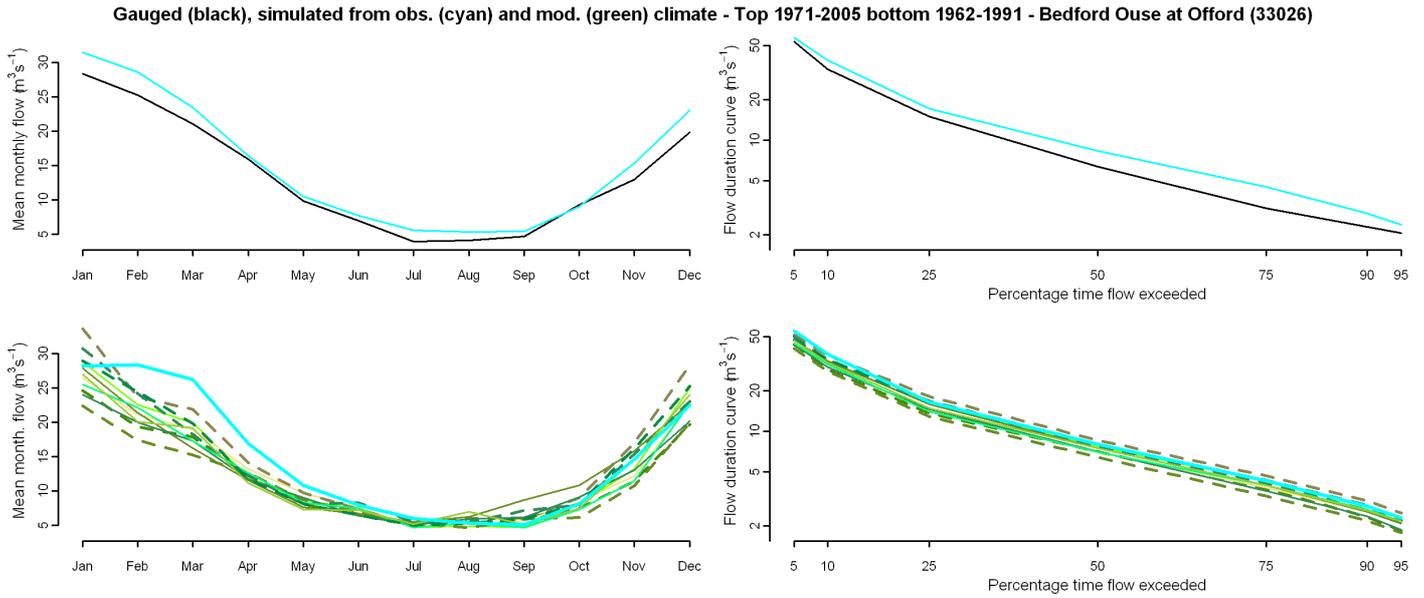
Gauged (black) and simulated (cyan) flows from observed climate - Bedford Ouse at Offord (33026)



Gauged (black) and simulated (cyan) flows from observed climate - Bedford Ouse at Offord (33026)



## 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  | -9    | -20   | -12   | 3     | -11   | -23   | -17   | -4    | -15   | -7    | -13   |
| January | 6     | -15   | -5    | 17    | 3     | -22   | -14   | 8     | -8    | 5     | -5    |
| April   | -28   | -33   | -18   | -13   | -31   | -28   | -29   | -25   | -23   | -30   | -31   |
| July    | -17   | -10   | -14   | -12   | -10   | -11   | -12   | -4    | -20   | -16   | -13   |
| October | 5     | -7    | 6     | 21    | 22    | -21   | 14    | 9     | -3    | 2     | -9    |
| Q90     | 0     | -19   | -9    | 12    | -11   | -22   | -16   | -6    | -6    | 0     | -9    |
| Q75     | 0     | -16   | -10   | 11    | -11   | -23   | -17   | -3    | -6    | -1    | -10   |
| Q50     | -4    | -15   | -11   | 9     | -9    | -20   | -12   | 0     | -11   | -2    | -8    |
| Q25     | -3    | -20   | -10   | 11    | -7    | -23   | -13   | 2     | -13   | 0     | -12   |
| Q5      | -15   | -24   | -15   | -6    | -16   | -26   | -22   | -7    | -18   | -15   | -17   |
| RP2     | -16   | -18   | -16   | -7    | -13   | -20   | -15   | -13   | -16   | -16   | -18   |
| RP10    | -8    | -1    | 5     | 5     | 8     | -7    | 10    | -4    | -8    | 7     | 1     |

## Climate change graphs for 2050s

