

General Information

| | | | |
|----------------|----------|-----------------------------|--------------|
| River Name | Lune | Catchment Area (km2) | 983 |
| Station Name | Caton | SAAR (mm) 61-90 | 1523 |
| Station Number | 72004 | Mean Annual Rain (mm) 62-91 | 1550 |
| Grid Reference | SD529653 | Mean Annual PE (mm) 62-91 | 494 |
| EA Region | EA-NW | Observed flow record | 1961 to 2006 |



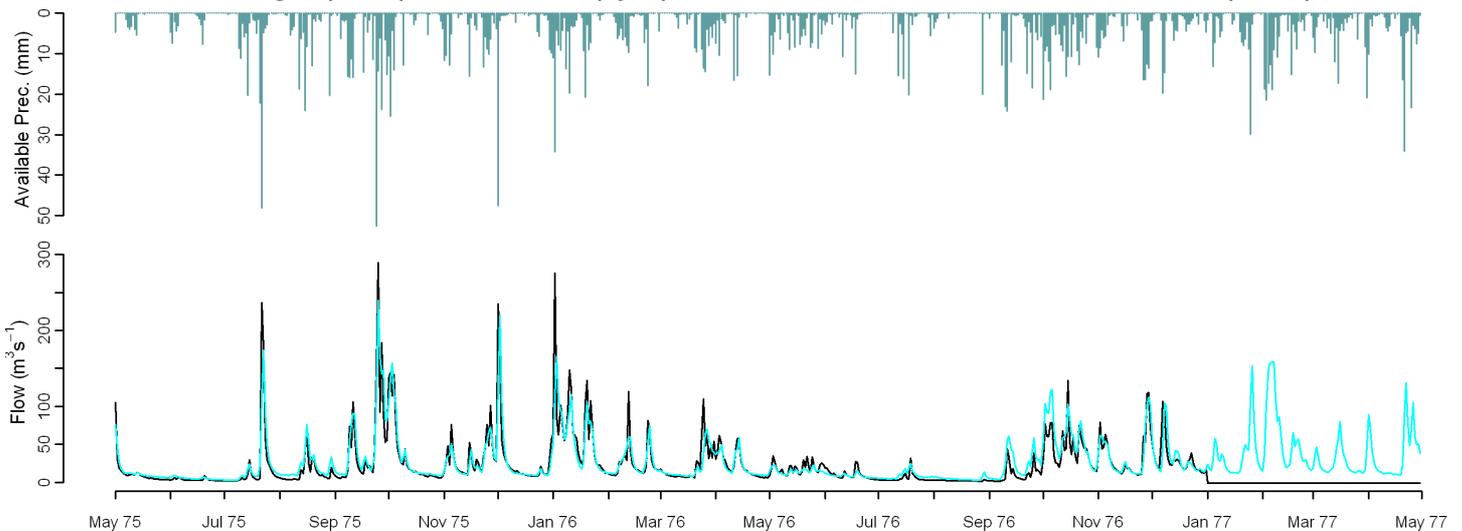
Observed Data

Comparison of gauged and simulated flow

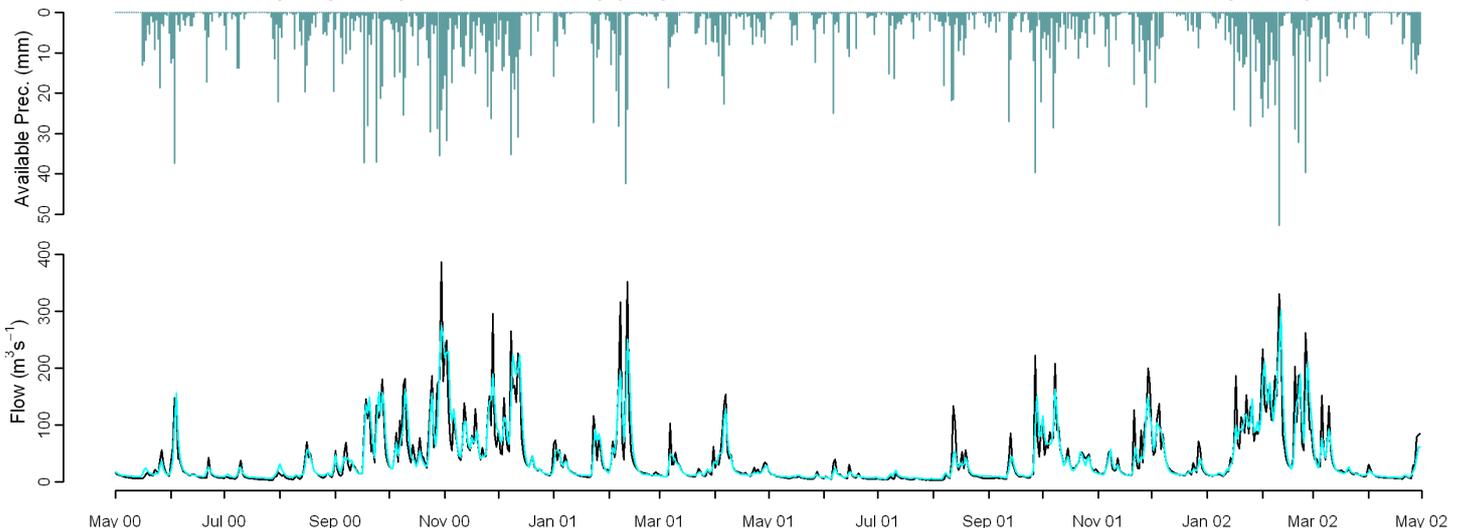
Model used: CERF

| | Mean Annual | J | F | M | A | M | J | J | A | S | O | N | D | Nash Sutcliffe |
|--------------------|-------------|------|-----|------|------|------|-----|-----|-----|------|-----|------|-----|----------------|
| MORECS (1971-2005) | 2.1 | -0.4 | 3.4 | -2.5 | -2.6 | -1.0 | 1.5 | 7.0 | 7.0 | 10.1 | 5.4 | 1.0 | 1.6 | 0.77 |
| Performance Band | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 |
| MORECS (1962-1991) | 2.3 | 0.3 | 1.5 | -2.7 | -3.9 | -4.1 | 4.2 | 8.8 | 7.6 | 10.1 | 3.8 | 1.7 | 0.0 | 0.76 |
| | Q90 | Q75 | Q50 | Q25 | Q5 | RP2 | | RP5 | | RP10 | | RP20 | | |
| MORECS (1971-2005) | 62.8 | 30.4 | 0.6 | 4.3 | -2.1 | | | | | | | | | |
| Performance Band | 1 | 1 | 1 | 1 | 1 | | | | | | | | | |
| MORECS (1962-1991) | 62.8 | 24.4 | 0.9 | 4.3 | -0.7 | | | | | | | | | |

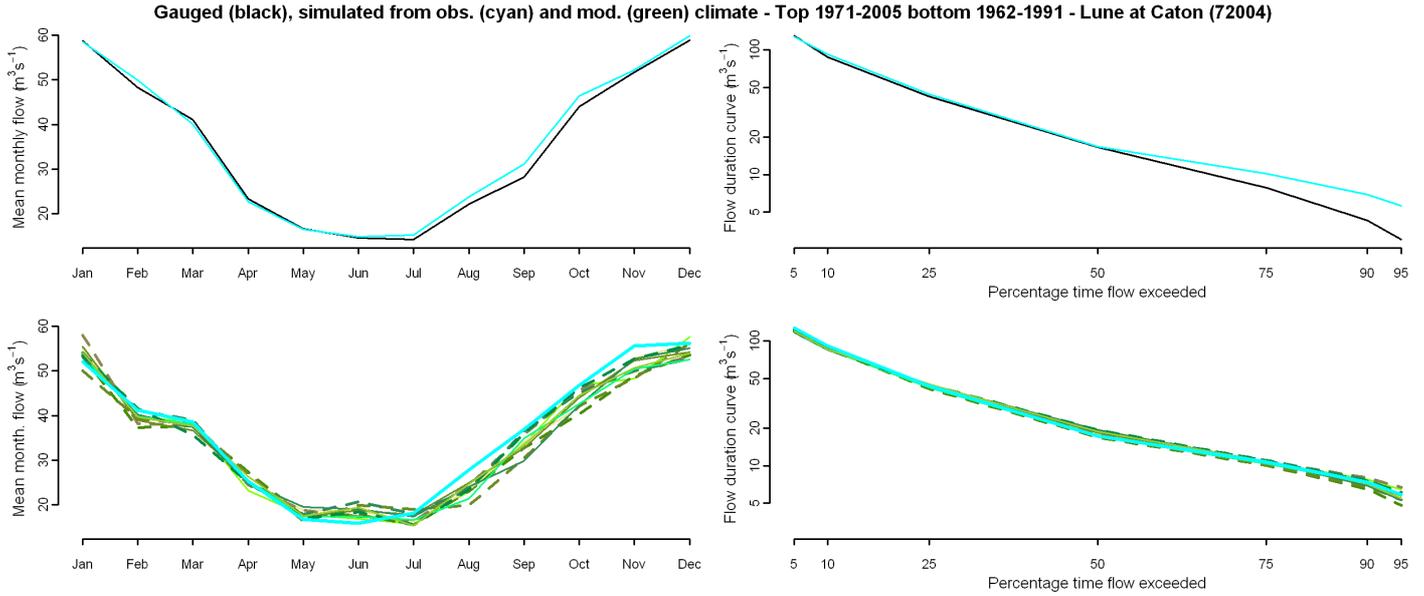
Gauged (black) and simulated (cyan) flows from observed climate - Lune at Caton (72004)



Gauged (black) and simulated (cyan) flows from observed climate - Lune at Caton (72004)



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 | -3 | -5 | -2 | 1 | -1 | -3 | -4 | 0 | -3 | -2 | -2 |
| January | 6 | 2 | 6 | 9 | 8 | 2 | -1 | 7 | 4 | -1 | 9 |
| April | -7 | 2 | -3 | 4 | 0 | 6 | 1 | 2 | -4 | 0 | 2 |
| July | -12 | -8 | -3 | -3 | -2 | 5 | -6 | 0 | -11 | -16 | -15 |
| October | 1 | -5 | -12 | 2 | -5 | -8 | 1 | -4 | -7 | 0 | -3 |
| Q90 | 5 | -12 | -5 | 11 | -7 | -9 | -9 | 5 | -3 | -1 | -3 |
| Q75 | 1 | -6 | -2 | 3 | -3 | -6 | -1 | 4 | -3 | 0 | 1 |
| Q50 | 7 | -2 | 3 | 8 | 5 | -1 | 11 | 10 | -1 | 10 | 8 |
| Q25 | 1 | -5 | 1 | 2 | 1 | 0 | 2 | 3 | -3 | 1 | 2 |
| Q5 | -7 | -3 | -5 | -3 | -5 | -6 | -9 | -2 | -7 | -6 | -6 |
| RP2 | 1 | 2 | -2 | -2 | 5 | 1 | 0 | -1 | 8 | 4 | 3 |
| RP10 | 2 | -1 | -1 | 0 | -1 | -2 | 0 | -2 | 11 | 4 | 0 |

Climate change graphs for 2050s

