

General Information

|                |            |                             |              |
|----------------|------------|-----------------------------|--------------|
| River Name     | Tamar      | Catchment Area (km2)        | 917          |
| Station Name   | Gunnislake | SAAR (mm) 61-90             | 1214         |
| Station Number | 47001      | Mean Annual Rain (mm) 62-91 | 1221         |
| Grid Reference | SX426725   | Mean Annual PE (mm) 62-91   | 566          |
| EA Region      | EA-SW      | Observed flow record        | 1961 to 2005 |



Observed Data

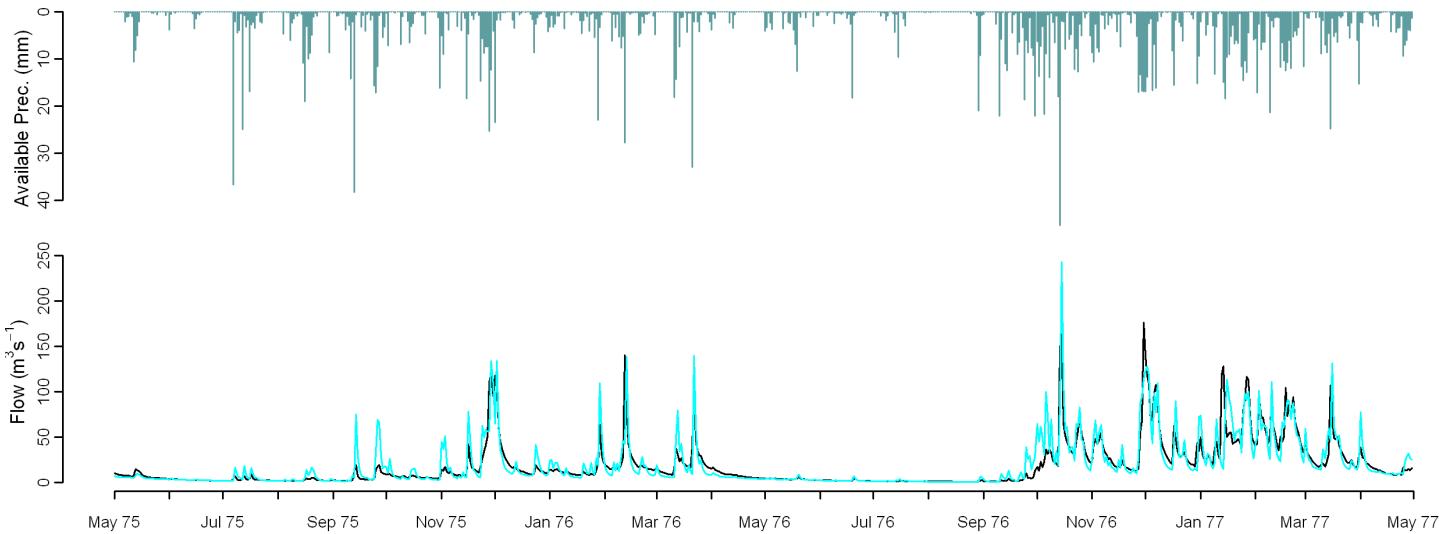
Comparison of gauged and simulated flow

Model used: CLASSIC

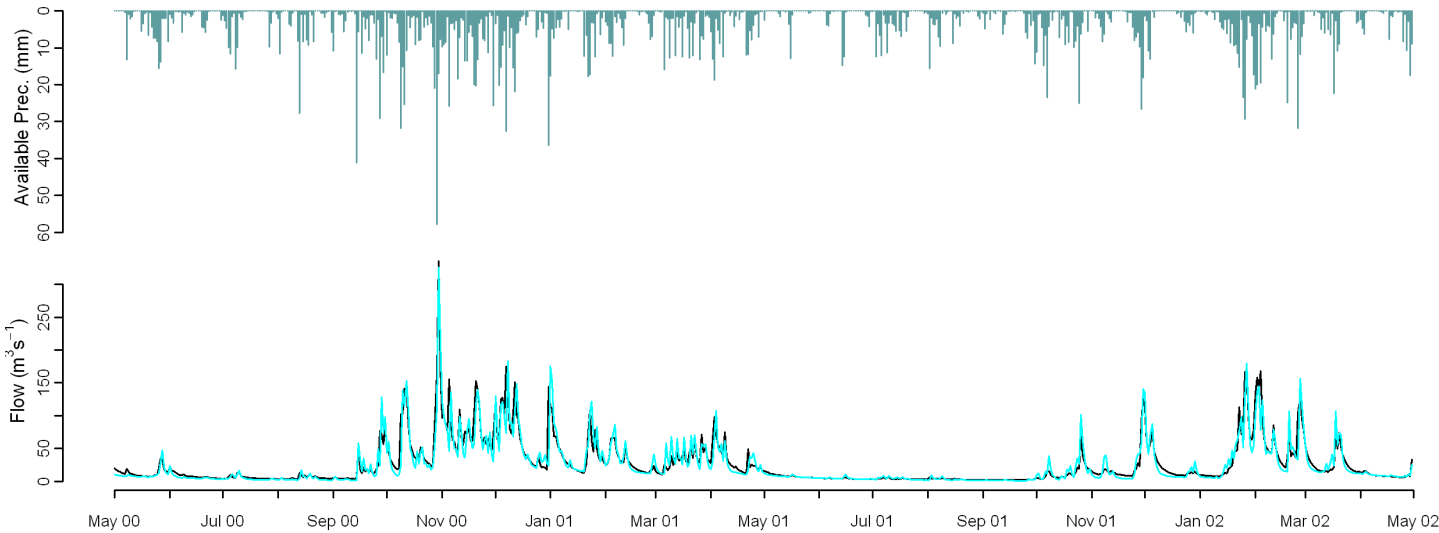
|                    | Mean Annual | J    | F    | M   | A    | M    | J    | J    | A    | S    | O    | N    | D    | Nash Sutcliffe |
|--------------------|-------------|------|------|-----|------|------|------|------|------|------|------|------|------|----------------|
| MORECS (1971-2005) | -2.2        | -4.5 | -0.7 | 2.6 | -2.2 | -7.7 | -9.5 | -9.5 | -4.2 | 8.5  | 2.8  | -3.2 | -4.8 | 0.81           |
| Performance Band   | 1           | 1    | 1    | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1              |
| FAO (1962-1991)    | 0.9         | -5.6 | -1.4 | 4.9 | 1.8  | 0.8  | 3.0  | 2.8  | 3.0  | 13.5 | 11.8 | 2.4  | -3.2 | 0.77           |

|                    | Q90   | Q75   | Q50   | Q25  | Q5  | RP2   | RP5   | RP10  | RP20  |
|--------------------|-------|-------|-------|------|-----|-------|-------|-------|-------|
| MORECS (1971-2005) | -28.0 | -16.3 | -14.9 | -2.0 | 5.8 | -13.5 | -16.7 | -17.4 | -17.1 |
| Performance Band   | 1     | 1     | 1     | 1    | 1   |       |       |       |       |
| FAO (1962-1991)    | -8.9  | -7.2  | -11.3 | 2.8  | 7.7 | -13.1 | -16.2 | -18.2 | -19.9 |

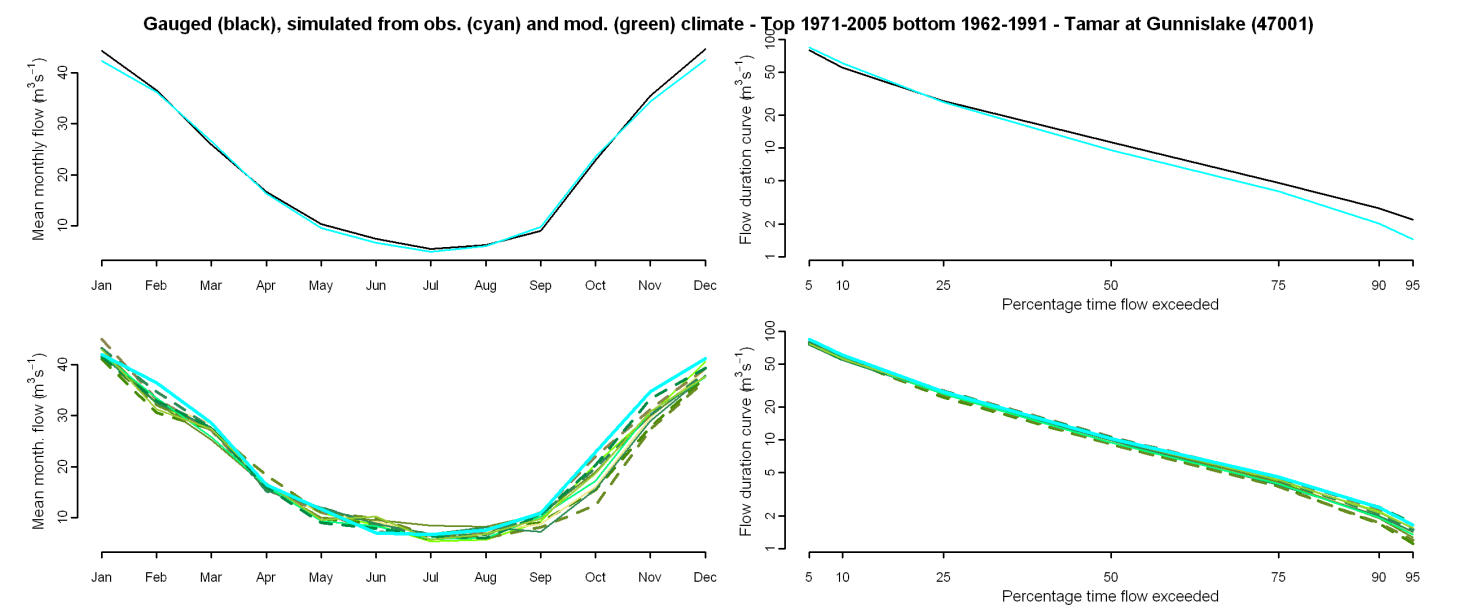
Gauged (black) and simulated (cyan) flows from observed climate - Tamar at Gunnislake (47001)



Gauged (black) and simulated (cyan) flows from observed climate - Tamar at Gunnislake (47001)



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  | -4    | -8    | -5    | -1    | -5    | -9    | -7    | -2    | -7    | -5    | -5    |
| January | 5     | 0     | 4     | 4     | 6     | -1    | -2    | 4     | 2     | -1    | 7     |
| April   | 2     | -4    | 0     | 2     | 1     | 12    | -2    | -3    | 1     | -5    | 5     |
| July    | -22   | -4    | 1     | 0     | 19    | 4     | 2     | -1    | -12   | -10   | -18   |
| October | -11   | -27   | -31   | 0     | -21   | -42   | -27   | -16   | -25   | -12   | -18   |
| Q90     | -8    | -29   | -15   | -3    | -23   | -28   | -15   | -10   | -21   | -5    | -11   |
| Q75     | -7    | -17   | -11   | 0     | -13   | -19   | -13   | -5    | -14   | -6    | -6    |
| Q50     | 0     | -11   | -5    | 5     | -5    | -11   | -3    | 2     | -9    | -1    | -3    |
| Q25     | -1    | -11   | -3    | 2     | -2    | -6    | -4    | 2     | -5    | -2    | -2    |
| Q5      | -9    | -6    | -8    | -7    | -6    | -10   | -11   | -4    | -9    | -11   | -9    |
| RP2     | -1    | -8    | -2    | 5     | -1    | -2    | 3     | -2    | 2     | 1     | -1    |
| RP10    | -3    | -10   | 2     | 7     | -1    | 4     | 8     | -10   | 6     | 4     | -4    |

Climate change graphs for 2050s

