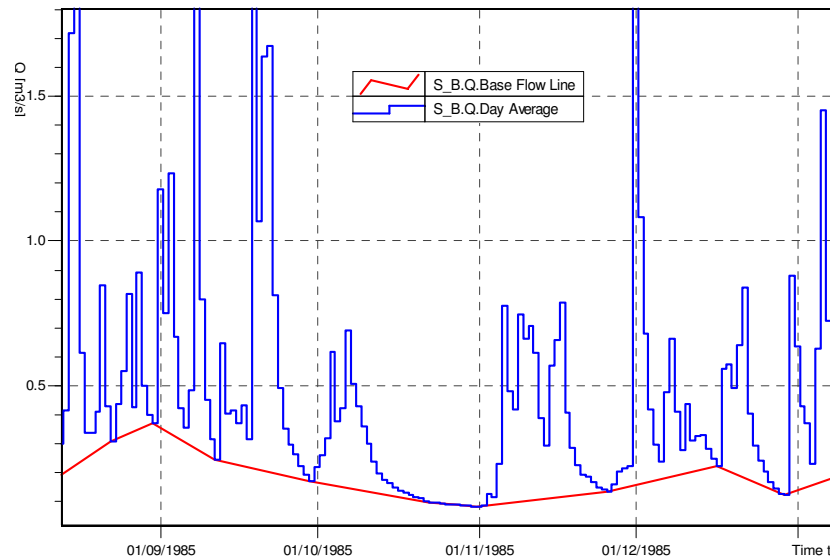


## Flood Studies Update: Work Package 5.2 – Baseflow Index from Soils ( $BFI_{soils}$ )

**Category:** Flood Risk Management



Concept of Baseflow (Baseflow element shown in red)

### Description:

At the outset of the Flood Studies Update research programme the Technical Steering Group identified the necessity for a descriptor such as the Baseflow Index (BFI). The success of BFI in the UK Flood Estimation Handbook (FEH) led to the decision to attempt to derive a similar descriptor for the Irish situation.

The production of a BFI descriptor based on soils soon emerged as the most likely method of producing a BFI descriptor. The objective of Work Package 5.2 is to determine a method of estimating the Baseflow Index at ungauged locations for the Irish river network based on soils data ( $BFI_{soil}$ ).

The WP 5.2 work uses GSI soils, subsoils and aquifer datasets and BFI values at gauged sites to derive a means of estimating  $BFI_{soils}$  at ungauged catchments.

The baseflow index from soils descriptor ( $BFI_{soil}$ ) will be used elsewhere in the FSU for the Estimation of  $Q_{med}$ , and for describing the shape of the flood hydrograph for a given peak flow ( $Q_p$ ).

For further information about this work, please contact: [oliver.nicholson@opw.ie](mailto:oliver.nicholson@opw.ie)



### **Design Team:**

The OPW is responsible for the specification, procurement and direct management of the Flood Studies Update Programme, with technical direction provided by a Technical Steering Group, comprising representatives of the primary state / semi-state organisations involved with hydrology, hydrometric monitoring and associated research in Ireland, viz. OPW, Met Éireann, Environmental Protection Agency, Electricity Supply Board, IHP / ICID National Committee, and has two technical experts.

### **Construction Team:**

Research Contractor: This work package was completed in house by the OPW.

### **Dates:**

Work Package 5.2 of the Flood Studies Update Programme was completed in November 2009.